

EXHIBIT 2

DAVID Y. IGE
GOVERNOR



LAND USE COMMISSION

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
OFFICE OF PLANNING & SUSTAINABLE DEVELOPMENT

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February 25, 2022



Mary Alice Evans, Director
Office of Planning and Sustainable Development
Environmental Review Program
235 S Beretania Street, Room 702
Honolulu, HI 96813

Dear Ms. Evans:

Subject: Docket No. A19-809 Pūlama Lāna`i – Miki Basin
Final Environmental Assessment (FEA) and Finding of No Significant Impact (FONSI)
Proposed Miki Basin Industrial Park
Lāna`i, Maui, Hawai`i
Tax Map Key No. (2) 4-9-002:061 (por)

On December 13, 2019, the Land Use Commission ("LUC") decided at its hearing that the subject project triggered the requirement of HRS Chapter 343 review and agreed to be the accepting authority. The LUC then determined an anticipated finding of no significant impact on the environment (AFONSI).

On February 4, 2022, Petitioner filed a Motion to Issue Notice of a Finding of No Significant Impact Final EA ("FEA").

On February 7, 2022 Petitioner filed an electronic and hard copy version of its FEA with the LUC. The 30-day period for LUC to take action ends on March 9, 2022.

On February 16, 2022 at its hearing, based on the LUC's analysis of the significance criteria set forth in HAR §11-200.1-13 and the public comments received on the Draft EA, the LUC voted to:

- a) find that the Proposed Action will not likely have significant impacts on the environment; and
- b) determine that a finding of no significant impact ("FONSI") is warranted for the proposed action.

With this letter, the LUC hereby transmits its determination and notice of a FONSI for the Final Environmental Assessment (FEA) for the State Land Use District Boundary Amendment situated at Tax Map Key No. (2) 4-9-002:061 (por), on Lāna`i, Maui, Hawai`i, for publication in the next available edition of The Environmental Notice.

Sincerely,

A handwritten signature consisting of several overlapping loops followed by a horizontal line extending to the right.

DANIEL E. ORODENKER
Executive Officer

Enclosures

cc: Cal Chipchase, Cades Schutte
Michele McLean, Maui County Planning
Keiki-Pua Dancil, Pūlama Lāna`i
Tessa Munekiyo Ng, Munekiyo Hiraga
Rodney Funakoshi, OPSD

From: webmaster@hawaii.gov
To: [DBEDT OPSD Environmental Review Program](#)
Subject: New online submission for The Environmental Notice
Date: Monday, February 28, 2022 12:14:09 PM

Action Name

Miki Basin Industrial Park

Type of Document/Determination

Final environmental assessment and finding of no significant impact (FEA-FONSI)

HRS §343-5(a) Trigger(s)

- (1) Propose the use of state or county lands or the use of state or county funds

Judicial district

Lānaʻi, Maui

Tax Map Key(s) (TMK(s))

(2) 4-9-002:061 (por.)

Action type

Applicant

Other required permits and approvals

Numerous - See Chapter VII

Discretionary consent required

District Boundary Amendment (Land Use Commission); Change of Zoning (County of Maui)

Approving agency

State of Hawaii, Land Use Commission

Agency contact name

Dan Orodenker

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[Map It](#)

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Was this submittal prepared by a consultant?

Yes

Consultant

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Consultant contact name

Chris Sugidono

Consultant contact email

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Consultant address

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[Map It](#)

Action summary

Pūlama Lānaʻi seeks to develop the Miki Basin Industrial Park, a 200-acre master-planned light and heavy industrial development on land adjoining the Lānaʻi Airport, the Maui Electric Company power plant, and the existing Miki Basin Industrial Condominium. The project implements the vision for placement of industrial land uses on Lānaʻi and expands upon the much-needed industrially zoned land area called for in the Lānaʻi Community Plan. The project will include 127 acres for renewable energy projects, 20 acres for infrastructure purposes, 12.5 acres for the relocation of an existing asphalt plant, and 26 acres for new industrial uses. The remaining 14.5 acres will be used for the relocation of an existing concrete recycling and rock crushing operation, and for the storage/stockpiling of aggregate and construction materials. Possible new future industrial uses include warehouse space for cold storage, laboratory/testing facilities, automotive services, animal hospital and other uses.

Reasons supporting determination

Refer to Chapter VI, Significance Criteria, of the Final Environmental Assessment

Attached documents (signed agency letter & EA/EIS)

- [Miki_Basin_Industrial_Feb_2022.Final_EA.pdf](#)
- [Miki_Basin_Industrial_LUC-FEA-FONSI-Determination-Ltr_2-25-2022_signed.pdf](#)

Shapefile

- The location map for this Final EA is the same as the location map for the associated Draft EA.

Action location map

- [Miki_Basin_Industrial_TMks_shape.shp.zip](#)

Authorized individual

Chris Sugidono

Authorization

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

Final Environmental Assessment

MIKI BASIN INDUSTRIAL PARK LĀNA'I, MAUI, HAWAI'I (TMK No. (2)4-9-002:061(por.))

Prepared for:

Lanai Resorts LLC, a Hawaii Limited Liability Company
doing business as Pūlama Lāna'i

February 2022

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MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

FEA REF-1

Final Environmental Assessment

MIKI BASIN INDUSTRIAL PARK LĀNA‘I, MAUI, HAWAI‘I (TMK No. (2)4-9-002:061(por.))

Prepared for:

**Lanai Resorts LLC, a Hawaii Limited Liability Company
doing business as Pūlama Lāna‘i**

February 2022

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Executive Summary

Project Name: Miki Basin Industrial Park

Type of Document: Final Environmental Assessment

Legal Authority: Chapter 343, Hawai'i Revised Statutes

Anticipated Determination: Finding of No Significant Impact (FONSI)

Applicable Environmental Assessment review "Trigger": Use of State lands

Location: Lāna'i Island
Lāna'i City
TMK No. (2) 4-9-002:061(por.)

Landowner: Lanai Resorts LLC, a Hawaii Limited Liability Company doing business as Pūlama Lāna'i
733 Bishop Street, Suite 1500
Honolulu, HI 96813

Applicant: Lanai Resorts LLC, a Hawaii Limited Liability Company doing business as Pūlama Lāna'i
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Approving Agency: State of Hawai'i, Land Use Commission
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Phone: (808) 244-2015

Project Summary:

Lanai Resorts LLC, a Hawai'i Limited Liability Company doing business as Pūlama Lāna'i ("Pūlama Lāna'i" or "Applicant") is proposing the Miki Basin Industrial Park, a 200-acre master-planned light and heavy industrial development on land adjoining the Lāna'i Airport, the Maui Electric Company (MECO) 5-acre power plant, and the existing 20-acre Miki Basin Industrial Condominium.

The project site is located on a portion of Tax Map Key (TMK) (2)4-9-002:061, approximately 3.2 miles south of Kaumālapa'u Highway in Lāna'i City, Maui County, Hawai'i. This project implements the vision for placement of industrial land uses on the island and expands upon the much-needed industrially zoned land area called for in the Lāna'i Community Plan.

The project will include 127 acres for renewable energy projects (e.g., photovoltaic plus battery energy storage), 20 acres for infrastructure purposes (10 percent of the project area, which will be used for roads, common areas, and other related uses), 12.5 acres for the relocation of an existing asphalt plant, and 26 acres for new industrial uses. The remaining 14.5 acres will be used for the relocation of an existing concrete recycling and rock crushing operation, and for the storage and stockpiling of aggregate and construction materials. Possible new future industrial uses include a slaughterhouse, warehouse space for cold storage, laboratory/testing facilities, niche product development, automotive services, multi-media facility, animal hospital, and other uses.

The subject property is designated "Agricultural" by the State Land Use Commission and "Light Industrial" and "Heavy Industrial" by the Lāna'i Community Plan. The project site is also designated "Agricultural", with a small portion designated "Interim" by Maui County Zoning. The Applicant will seek a District Boundary Amendment from the State of Hawai'i Land Use Commission (SLUC) to designate the subject property "Urban," as well as a Change of Zoning (CIZ) from "Agricultural" and "Interim" to "M-1, Light Industrial" and "M-2, Heavy Industrial" from the Maui County Council.

Intersection improvements at Kaumālapa'u Highway in the vicinity of Miki Road will be required. Kaumālapa'u Highway is a State roadway. The use of State lands triggers the need to prepare an Environmental Assessment (EA) pursuant to Chapter 343, Hawai'i

Revised Statutes (HRS). The State of Hawai'i, Land Use Commission will serve as the Approving Agency for the EA. It is noted that a Draft EA was published for the Miki Basin Industrial Park on November 23, 2019. However, since the original publication of the Draft EA, additional information on the proposed project has been developed, including greater detail about the proposed uses within the project. The additional detail on proposed uses within the Miki Basin Industrial Park allowed for updated technical studies to be prepared. In light of the foregoing, a second Draft EA was prepared for the proposed project.

List of Acronyms

12MAV	12 month moving average
ac-ft.	Acre-feet
AFNSI	Anticipated Finding of No Significant Impact
AIS	Archaeological Inventory Survey
ALISH	Agricultural Lands of Importance to the State of Hawai'i
ASTs	above ground storage tanks
BMPs	Best Management Practices
CBP	Concrete Batch Plant
cf	Cubic Feet
cfs	Cubic Feet per Second
CIA	Cultural Impact Assessment
CIZ	Change of Zoning
CO2 EQ	Carbon dioxide equivalent
CPA	Community Plan Amendment
CWRM	Commission on Water Resource Management
DBA	District Boundary Amendment
DEM	Department of Environmental Management
DLNR	Department of Land and Natural Resources
DOE	Department of Education
DOH	State Department of Health
EA	Environmental Assessment
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FOIA	Freedom of Information Act
FONSI	Finding of No Significant Impact
GHG	Greenhouse Gases
GPD	Gallons per day
GPM	gallons per minute
HAR	Hawai'i Administrative Rules
HCZMP	Hawai'i Coastal Zone Management Program
HDOT	Hawai'i Department of Transportation
HECO	Hawaiian Electric Company, Ltd
HRECs	Historical Recognized Environmental Conditions
HRS	Hawai'i Revised Statutes
IAL	Important Agricultural Lands
IPCC	Intergovernmental Panel on Climate Change
IWS	Individual Wastewater Systems
LCP	Lāna'i Community Plan

LOS	Level of Service
LSB	Land Study Bureau
m	meters
MCC	Maui County Code
MECO	Maui Electric. Co.
MG	Million Gallons
mgd	Million Gallons per Day
mph	miles per hour
NPDES	National Pollutant Discharge Elimination System
PCBs	polychlorinated biphenyls
PRV	pressure reducing valve
PWS	Public Water System
RECs	recognized environmental conditions
SHPD	State Historic Preservation Division
SLUC	State of Hawai'i Land Use Commission
SMA	Special Management Area
SY	sustainable yield
TIAR	Traffic Impact Analysis Report
TMK	Tax Map Key
TRC	TRC Environmental Corporation
UGB	Urban Growth Boundary
UH	University of Hawai'i
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USTs	underground storage tanks
WSS	Water System Standards
WUDP	Water Use and Development Plan
WWRD	Wastewater Reclamation Division
WWRF	Wastewater Reclamation Facility
WWTP	Wastewater Treatment Plant

Summary of Existing Conditions and Potential Impacts and Mitigation Measures

Section	Category	Existing Conditions	Potential Impacts and Mitigation Measures
A	PHYSICAL SETTING		
A.1	Surrounding Land Uses	<ul style="list-style-type: none"> The proposed Miki Basin Industrial Park will be located in an area that is approximately four (4) miles southwest of Lānaʻi City on land adjoining the Lānaʻi Airport, the Maui Electric Company (MECO) 5-acre power plant and the existing 20-acre Miki Basin Industrial Condominium. 	<ul style="list-style-type: none"> The proposed Miki Basin Industrial Park will be compatible with existing industrial uses on neighboring properties and has been designated by the Lānaʻi Community Plan for industrial use. Building the industrial park will allow existing industrial facilities currently scattered in business and residential areas in Lānaʻi City to relocate to more appropriate locations having the infrastructure and buffers necessary for industrial uses.
A.2	Climate	<ul style="list-style-type: none"> The climate of Lānaʻi is stable and relatively uniform year-round. Daily temperatures in the region range between an average low of 67.8 degrees and a high of 75.1 degrees Fahrenheit. 	<ul style="list-style-type: none"> The proposed project will not adversely impact climatic conditions in and around the area.
A.3	Agricultural Lands	<ul style="list-style-type: none"> Plasch Econ Pacific Inc. and Munekiyo Hiraga prepared an Impacts on Agriculture report, analyzing potential impacts the project has on agricultural resources. The project area and surrounding fields were used for a pineapple plantation from the 1920s to 1992. Since then, the project area and the surrounding fields have been fallow. Agricultural issues are primarily due to a lack of irrigation water. The proposed site is located on lands designated as “Unique” by the Agricultural Lands of Importance to the State of Hawaiʻi (ALISH). The underlying land for the proposed site is characterized by a low productivity rating of “D” for agriculture by the University of Hawaiʻi (UH) Land Study Bureau (LSB) soils rating system. A small portion of the project area has the lowest LSB soils rating of “E.” 	<ul style="list-style-type: none"> Although the development of the proposed project will result in a loss of 200 acres of agricultural lands on Lānaʻi, the lands are characterized by a low productivity rating and have not been cultivated since the pineapple plantation closed in 1992. The 200-acre site amounts to only 1.1 percent of the approximately 18,000 acres of former plantation lands on Lānaʻi that remain available for agricultural use. The loss of agricultural land will be offset by the benefits of the project, including: <ol style="list-style-type: none"> employment generated by construction activity and onsite commercial and industrial activity; offsite economic activity generated by the purchases of goods and services by construction companies and the families of construction workers; tax revenues derived from County property taxes and State taxes (excise, personal income, and corporate income); and goods and services provided by businesses of the project.

Section	Category	Existing Conditions	Potential Impacts and Mitigation Measures
A.4	Topography and Soils Characteristics	<ul style="list-style-type: none"> • The project area is situated on gently to moderately sloping lands that were part of a large pineapple plantation. • The soils in and around the project area are generally well drained and the soils can be expected to be low in organic matter. Further, the soil is not ideal for the growing of most commercially viable crops due to poor soil. 	<ul style="list-style-type: none"> • Grubbing and grading will be required for project implementation. • An erosion control plan will be prepared to minimize soil erosion from wind and rain, and, if applicable, a grading plan will be prepared and submitted for review and approval to the Development Services Administration, County of Maui, and Department of Public Works. • No impacts on geological resources are noted. • Implementation of BMPs will ensure that the alterations to the terrain minimize erosion, water quality degradation and other environmental impacts. • Upon completion of construction, significant adverse impacts to topography or soil characteristics are not anticipated.
A.5	Flood, Tsunami, and Sea Level Rise Hazards	<ul style="list-style-type: none"> • The project site is located approximately 3.5 miles inland from the shoreline and is not within the tsunami inundation zone, as well as outside of the projected 3.2-foot sea level rise exposure area. 	<ul style="list-style-type: none"> • The proposed action does not present any risks of flooding, tsunami or sea level rise hazards.
A.6	Streams and Wetlands	<ul style="list-style-type: none"> • Although historical evidence suggests the existence of perennial streams, no surface water resources currently exist on the island. There are also no wetlands located on or in the immediate vicinity of the proposed project site. 	<ul style="list-style-type: none"> • The proposed action presents no impacts to streams or wetlands.
A.7	Flora and Fauna	<ul style="list-style-type: none"> • Robert Hobdy prepared a Flora and Fauna Study for the proposed project. • The entire project area has lain fallow from agricultural use for 25 years, with some grazing occurring during a few of these years. The vegetation was a dense growth of grasses and shrubs. • Flora: <ul style="list-style-type: none"> ➤ The vegetation within the project area is dominated by hardy, invasive non-native species. ➤ Just three (3) common native plant species were found, 'ilima (<i>Sida fallax</i>), 'uhaloa (<i>Waltheria indica</i>) and 'a'ali'i (<i>Dodonaea viscosa</i>), all of which are widespread and common throughout Hawai'i, causing no conservation concern. ➤ No special habitats for native plants were found. 	<ul style="list-style-type: none"> • Flora: <ul style="list-style-type: none"> ➤ It is determined that there is nothing of special botanical concern with regard to this project. No recommendations with reference to plants were deemed necessary by the Flora and Fauna Study. • Fauna: <ul style="list-style-type: none"> ➤ No Endangered Hawaiian bats were detected in the project area during the survey. ➤ The Flora and Fauna Study recommended that any significant outdoor lighting associated with the proposed project be hooded to direct the light downward to mitigate this threat. ➤ The U.S. Fish and Wildlife Service provided recommended more specific avoidance and minimization measures as it relates to the

Section	Category	Existing Conditions	Potential Impacts and Mitigation Measures
		<ul style="list-style-type: none"> • Fauna: <ul style="list-style-type: none"> ➤ The fauna recorded in this project area is largely non-native in character, and the habitat is unsuitable for Hawai'i's native forest birds or seabirds. ➤ Just one (1) mammal species (axis deer) was observed in the project area. No Hawaiian hoary bats were detected. ➤ Other non-native mammals likely to frequent this area include rats (<i>Rattus spp.</i>), mice (<i>Mus domesticus</i>), feral cats (<i>Felis catus</i>) and occasionally domestic dogs (<i>Canis familiaris</i>). ➤ Eight (8) non-native bird species were recorded. ➤ Two (2) native bird species were recorded, the indigenous and migratory kōlea or Pacific golden-plover and the endemic pueo or Hawaiian owl (<i>Asio flammeus sandwichensis</i>). ➤ Insect life was sparse in this habitat and no native insect species were seen. 	<p>endangered Hawaiian petrel that may occur in the vicinity to pass through the project area.</p>
A.8	Archaeological Resources	<ul style="list-style-type: none"> • T. S. Dye & Colleagues, Archaeologists prepared an Archaeological Inventory Survey (AIS) with subsurface testing. • The State Historic Preservation Division (SHPD) accepted the AIS on August 4, 2020. • A 100 percent pedestrian survey of the area was conducted and 31 backhoe trenches were excavated. No artifacts were collected from any of the trenches excavated. • The pedestrian and survey subsurface testing resulted in the identification and documentation of two (2) historic properties, designated Site 50-40-98-1980 and Site 50-40-98-1981. • Both historic properties are evaluated as significant for the important information on Hawaiian history and prehistory that they have yielded. 	<ul style="list-style-type: none"> • The AIS recommended that a data recovery plan be developed for Sites 50-40-98-1980 and 50-40-98-1981, and that this plan be implemented prior to proposed construction activities within the parcel. SHPD concurred with this recommended mitigation. • The Applicant has prepared and submitted a Archaeological Data Recovery Plan and Archaeological Data Recovery Report to SHPD for review. • The Applicant will comply with all applicable County, State and Federal laws and rules regarding the treatment of archaeological and historic sites.
A.9	Cultural Resources	<ul style="list-style-type: none"> • Attestation letters, interviews with lineal descendants of Lana'i and a Ka Pa'akai Analysis and Determination were conducted to provide cultural background and research for the proposed project. • The AIS prepared for the proposed project also included research compliant with guidelines for development of a Cultural Impact Assessment (CIA) study. 	<ul style="list-style-type: none"> • The Ka Pa'akai Analysis and Determination conducted for the project determined that the availability and accessibility of cultural resources in the region will not be significantly impacted. Therefore, the project will not have any significant negative impact on traditional and customary practices.

Section	Category	Existing Conditions	Potential Impacts and Mitigation Measures
		<ul style="list-style-type: none"> The AIS includes descriptions of traditional knowledge of place, and traditional and customary practices as documented in Hawaiian language accounts from Lānaʻi. It also cited important historical accounts penned by foreign residents and visitors, documenting the changes in land use, access and residency from the 1840s to the 1950s. No native tenant kuleana (property rights) or Royal Patent Grants were issued for lands within the project area. 	
A.10	Air Quality	<ul style="list-style-type: none"> Air quality in the region is generally good due to the prevailing trade winds. 	<ul style="list-style-type: none"> Appropriate dust control measures and Best Management Practices (BMPs) will be implemented during construction to minimize the effects of fugitive dust. From a long-term perspective, activities which may have air quality impacts will be regulated by the State Department of Health (DOH). The Miki Basin Industrial Park includes the relocation of an existing, asphalt plant, the relocation of an existing concrete recycling, and rock crushing operation, and materials storage and stockpiling of building and construction materials. BMPs will be employed for these uses including dust control measures and storage and transportation practices that minimize particulate emissions into the air. Inasmuch as these facilities are relocations of existing facilities, new air quality impacts are not anticipated. More than half the 200-acre project is planned for renewable energy projects (127 acres), which will not generate adverse air quality impacts. While specific uses for the 26 acres of new industrial space have not been solidified, many of the potential uses contemplated generally do not represent noxious uses, such as warehouses and testing facilities, and would not be a source of air pollution. It is noted that before any air pollution sources can be built, an application must be filed with the DOH with detailed information on such sources. If deemed appropriate, the DOH may require the applicant to assess the air quality impact of the proposed

Section	Category	Existing Conditions	Potential Impacts and Mitigation Measures
			emissions. A permit from the DOH will be required for air pollution sources.
A.11	Greenhouse Gas Considerations	<ul style="list-style-type: none"> • The Federal Greenhouse Gas Reporting Program requires mandatory reporting of GHG emissions from sources that emit 25,000 metric tons or more of carbon dioxide equivalent (CO₂ EQ) per year in the United States. • On Lānaʻi, there are no facilities operating at or above the 25,000 metric ton level. 	<ul style="list-style-type: none"> • The proposed project will include 127 acres for renewable energy projects, including photovoltaic equipment with battery storage, which will reduce the island's dependence on fossil fuels and GHG emitting infrastructure. • The proposed action is not anticipated to create significant direct and indirect foreseeable GHG emissions, and does not fall within the threshold of mandatory GHG reporting.
A.12	Noise	<ul style="list-style-type: none"> • The existing noise environment in and around the project study area is dominated by noise from airport-related activities, including roadway use and aircraft taxiing, taking off, and landing at the airport. • No noise-sensitive areas are present within the project study area, and no incompatible land uses are present within the project study area. 	<ul style="list-style-type: none"> • Sound attenuating construction equipment will be used where practicable and necessary, to mitigate noise impacts caused by construction. • Night-time construction activity is not anticipated for the proposed project. • Future uses include the relocation of existing facilities, which do not represent new noise impacts. The Applicant will work to minimize noise emissions at the concrete recycling and rock crushing operation, including the maintenance and operation of all combustion powered equipment and vehicles. • Future new industrial users will also be responsible for complying with all applicable DOH rules and regulations relating to noise impacts. • The proposed project site was selected, in part, due to its close proximity to similar industrial uses, as well as its distance from noise-sensitive areas.
A.13	Hazardous Materials	<ul style="list-style-type: none"> • TRC Environmental Corporation (TRC) prepared a Phase I Environmental Site Assessment (ESA) of the approximately 200-acre proposed project site. • No transformers were observed on the site. Utility owned pole-mounted transformers are located adjacent to the property area. • No underground storage tanks (USTs) or above ground storage tanks (ASTs) are located on the site. • DOH records did not indicate any concerns associated with the site. 	<ul style="list-style-type: none"> • Cement processed at the concrete recycling and rock crushing operation will be free of paint or other hazardous products. Any rebar will be removed and shipped off-island for appropriate disposal in a landfill. • Future industrial uses at the project site will be regulated by applicable federal and state law and industry standards. • Wastewater generated by the concrete recycling and rock crushing operation will be recycled back into production via a fully integrated system and

Section	Category	Existing Conditions	Potential Impacts and Mitigation Measures
		<ul style="list-style-type: none"> The Phase I ESA has also revealed no evidence of de minimis conditions in connection with the site. The Phase I ESA has revealed no evidence of both, Recognized Environmental Conditions (RECs) and Historical Recognized Environmental Conditions (HRECs) in connection with the site. 	conform to rules and regulations of the Clean Water Act.
A.14	Scenic and Open Space Resources	<ul style="list-style-type: none"> The proposed project is located approximately four (4) miles southwest of Lānaʻi City and abuts the southeast end of Lānaʻi Airport. Additionally, the proposed project is not located near traditional access or walking trails between the coast or upland areas. 	<ul style="list-style-type: none"> The proposed Miki Basin Industrial Park will have complementary uses to the neighboring facilities and no significant adverse impacts to open space or scenic resources are anticipated as a result of the project.
A.15	Beach and Mountain Access	<ul style="list-style-type: none"> The project is located approximately six (6) miles from the nearest beach and approximately ten (10) miles from the peak of Lānaʻihale. 	<ul style="list-style-type: none"> There are no traditional access trails identified in close proximity to the proposed project area. Accordingly, there are no anticipated adverse impacts to beach and mountain access from the proposed project.
B SOCIO-ECONOMIC ENVIRONMENT			
B.1	Population and Demography	<ul style="list-style-type: none"> Maui County's population in 2019 is estimated at approximately 167,400 according to the U.S. Census Bureau, an increase of approximately 8.0 percent since 2010, when the population stood at 154,924. The population on Lānaʻi has fluctuated over the decade. In 2019, the five-year population estimate for the island was 2,730 residents. The Lānaʻi Community Plan notes that an additional 885 residents are forecasted to live on the island by the year 2030, for a total population of 4,020. It was noted that increased economic activity and development plans on the island may result in population growing beyond the original forecast to up to 6,000. 	<ul style="list-style-type: none"> The proposed project is not a direct population generator and, thus, not anticipated to have a significant adverse impact on population or demographic trends on Lānaʻi.
B.2	Economy	<ul style="list-style-type: none"> Since the 1990s, the two (2) resorts on Lānaʻi have been the primary driving forces for the economy. The purchase of goods and services by visitors, retirees, part-time residents, the hotel, and hotel employees generate most of the jobs on Lānaʻi. According to the data from the State Department of Labor and Industrial Relations, there were 1,500 (annual average) non-agricultural jobs on Lānaʻi in 2020 (Department of Labor and Industrial Relations, 2020). Jobs in the leisure and hospitality industry accounted for 600 (annual average) jobs, or 40 percent. 	<ul style="list-style-type: none"> An Economic, Population and Fiscal Impacts Report was prepared for the project by Plasch Econ Pacific Inc. Over the initial 10-year development period, when most of the development is expected to occur, total construction expenditures are estimated at \$78.8 million, or an average of \$7.9 million per year. Construction expenditures plus indirect sales related to construction expenditures are expected to average \$12.9 million per year based on State economic multipliers.

Section	Category	Existing Conditions	Potential Impacts and Mitigation Measures
		<ul style="list-style-type: none"> In July 2021, unemployment on Lānaʻi was 3.8 percent. Sensei Farms was established in recent years and has been providing produce to the resorts, restaurants, and businesses on island. In 2020, it began exporting produce to every island in Hawaiʻi. This new enterprise provides diversity for the economy. 	<ul style="list-style-type: none"> Construction employment is expected to average about 19 jobs per year with direct payroll of \$1.7 million per year. During construction, the State will net approximately \$5.6 million in tax revenues, largely comprised of general excise taxes and corporate and personal income taxes. The County derives negligible income from development activity. By 2030, new economic activities at the Miki Basin Industrial Park are expected to generate about \$17.1 million per year in revenues and approximately 60 new jobs with total payroll estimated at \$2.8 million. The project is expected to have a net positive fiscal impact for the State and County of \$670,000 per year and \$380,000 per year, respectively.
C	PUBLIC SERVICES		
C.1	Police and Fire Protection	<ul style="list-style-type: none"> The project site is within the service area of the Maui Police Department's District II Lānaʻi patrol district which services the island of Lānaʻi. Fire prevention, suppression, and protection services for the island of Lānaʻi are provided by the County Department of Fire and Public Safety's Lānaʻi Fire Station. 	<ul style="list-style-type: none"> The proposed activity is not anticipated to adversely impact public services or facilities and utilities, and will not expand the service limits for public services and infrastructure.
C.2	Medical Services	<ul style="list-style-type: none"> The Lānaʻi Community Hospital is the only hospital on the island of Lānaʻi. It has limited 24-hour emergency care, acute care and diagnostic imaging. It also provides long-term care (including skilled and intermediate nursing care). 	<ul style="list-style-type: none"> The proposed project will not adversely affect medical services in the area.
C.3	Airports	<ul style="list-style-type: none"> The proposed project is located adjacent to and east of the Lānaʻi Airport. It has a single runway and primarily serves scheduled interisland and commuter/air taxi traffic. The airport complex includes a terminal, parking, rental car facilities, cargo, and airport support services. The portion of the airport property that is immediately adjacent to the project site consists of vacant land. The airport runway is located over 1,500 feet from the nearest property boundary. 	<ul style="list-style-type: none"> While the proposed project is adjacent to the Lānaʻi Airport, the area immediately adjacent to the project site consists of vacant land. The Miki Basin Industrial Park will comply with all applicable requirements and regulations regarding development near the airports, including requirements pertaining to the development of solar energy facilities.

Section	Category	Existing Conditions	Potential Impacts and Mitigation Measures
C.4	Solid Waste	<ul style="list-style-type: none"> The Lānaʻi Landfill on Kaumālapaʻu Highway accepts municipal solid waste and construction debris dropped-off from commercial and residential customers. In addition, personal delivery to the landfill of municipal solid waste, green waste, and trash is available. Pūlama Lānaʻi sponsors rural recycling collection events for hard to recycle items including: appliances, small scrap metal and vehicle batteries and tires. The County has recycling programs for computers/electronics and household batteries. 	<ul style="list-style-type: none"> During the initial short-term construction phase of the project, the contractor will develop and implement a construction-generated waste disposal plan. Appropriate construction debris will be taken to the landfill. Individual users at the Miki Basin Industrial Park will be responsible for disposing of solid waste, recyclables, and green waste consistent with State and County regulations and programs. By-products from the concrete crushing operation will be recycled as much as possible. Inasmuch as the concrete crushing operation represents a relocation of an existing use, significant new solid waste generation is not anticipated.
C.5	Education Facilities	<ul style="list-style-type: none"> Lānaʻi High and Elementary School reported the enrollment of 565 students for the 2020 to 2021 school year. It is the only school that serves educational needs on the island of Lānaʻi. 	<ul style="list-style-type: none"> The proposed Miki Basin Industrial Park is not a population generator and, as such, adverse impacts on educational facilities are not anticipated.
C.6	Recreational Resources	<ul style="list-style-type: none"> The Maui County Department of Parks and Recreation and Lānaʻi public schools maintain a number of recreation resources on the island of Lānaʻi. County parks and facilities in Lānaʻi City include: the Lānaʻi Community Center, the Lānaʻi Gym and Tennis Courts; and the Lānaʻi Little League Field; Fraser Avenue Park and Kāumālapāʻu Highway/Fraser Avenue Park. Pūlama Lānaʻi also owns and maintains a number of recreational facilities that are available to public use including Dole Park, Olopua Woods Park, Waialua Park, Hulopoe Beach Park, and the Lānaʻi Recreational Center. 	<ul style="list-style-type: none"> The proposed action is not expected to adversely impact existing recreational facilities or generate a need for additional facilities.
D	INFRASTRUCTURE		
D.1	Roadways	<ul style="list-style-type: none"> A Traffic Impact Analysis Report (TIAR) was prepared by Austin, Tsutsumi, and Associates, Inc. (ATA), to evaluate the traffic impacts resulting from the proposed 200-acre Miki Basin Industrial Park. The report studied the following existing roadways: <ul style="list-style-type: none"> ➤ Kaumālapaʻu Highway ➤ Miki Road The Kaumālapaʻu Highway/Miki Road intersection currently operates with all movements at Level of 	<ul style="list-style-type: none"> It is assumed that at least two (2) driveway access points to the project site will be provided along Miki Road. Project Driveway 1 provides access to the light and heavy industrial areas west of Miki Road and Project Driveway 2 provides access to the light industrial area east of Miki Road. The proposed project is anticipated to generate 161 trips during the AM peak hour of traffic and 163 trips during the PM peak hour of traffic.

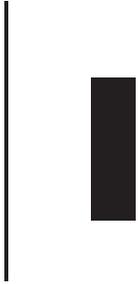
Section	Category	Existing Conditions	Potential Impacts and Mitigation Measures
		<p>Service (LOS) B or better during the AM and PM peak hours of traffic.</p> <ul style="list-style-type: none"> No significant delays or queuing were observed at the intersection during either peak hour of traffic. 	<ul style="list-style-type: none"> The TIAR recommendations are to widen Miki Road between its intersection with Kaumālapa‘u Highway to the project driveway(s) and provide an exclusive westbound left-turn deceleration lane. Upon completion of the project, all intersection movements are forecast to operate at LOS B or better during the AM and PM peak hours of traffic.
D.2	Water	<p><u>Water System</u></p> <ul style="list-style-type: none"> Akinaka & Associates, Ltd. prepared a Water Master Plan to analyze the condition of the existing water distribution system and provide a plan for the new project water demands. Water for Miki Basin is currently provided by the Mānele Water System (Public Water System 238 (“PWS 238”)) which is owned, operated, and maintained by the Lāna‘i Water Company. PWS 238 is interconnected with the Lāna‘i City Water System (Public Water System 237 (“PWS 237”)). During emergencies, PWS 237 can be connected to PWS 238 by opening a valve. The existing average daily water usage of PWS 238 is currently estimated at 433,000 gallons per day (GPD). Existing water demand for the Concrete Batch Plant (CBP) is 3,500 GPD, which is currently provided by PWS 238. Existing water demand for the asphalt plant is 1,000 GPD, which is currently provided by PWS 237. <p><u>Water Availability</u></p> <ul style="list-style-type: none"> There are two (2) aquifers on Lāna‘i, the Leeward Aquifer system and Windward Aquifer system, each with a sustainable yield of 3.0 million gallons per day (MGD). Together, the total sustainable yield for the island of Lāna‘i is 6.0 MGD. 	<p><u>Water System</u></p> <ul style="list-style-type: none"> The estimated water demand for the full buildout of the Miki Basin Industrial Park is 163,125 GPD, which includes the existing and new or incremental estimated water demand. The Water Master Plan provided a list of improvements that will be required to support full buildout of the industrial park. These improvements include modifying or replacing the existing PRV, drilling a new source or multiple sources to obtain an additional minimum pump capacity of 426 gallons per minute (GPM), and evaluating the condition of sections of the Pālāwai Irrigation Grid, to determine the need for pipe repair, replacement, or possible abandonment. A New Well Supply Alternatives study was prepared by Tom Nance Water Resource Engineering to evaluate potential well sites for the new water source requirement identified in the Water Master Plan. Three (3) potential well sites were evaluated. The study recommended development of a new well 2,000 feet northwest of existing Well No. 2. Pūlama Lāna‘i will conform with the requirements of the Hawai‘i Safe Drinking Water Branch and County of Maui Water System Standards in developing a safe drinking water system, and any other associated regulatory entity as it relates to installation, inspection, and maintenance of water systems on the site.

Section	Category	Existing Conditions	Potential Impacts and Mitigation Measures
			<p><u>Water Availability</u></p> <ul style="list-style-type: none"> • The New Well Supply Alternatives report prepared by Tom Nance Water Resource Engineering concluded that a new well to supply the Miki Basin Industrial Park project can be accommodated within the Leeward Aquifer System's 3.0 MGD sustainable yield. • The total forecasted water demand for Lāna'i (summation of current water demand, full buildout of Miki Basin Industrial Park and other proposed or approved projects) is 1.936 MGD, which is less than the Leeward Aquifer's 3.0 MGD sustainable yield and the island's sustainable yield of 6.0 MGD. • Based on the foregoing, significant adverse impacts to water resources are not anticipated as a result of the proposed project.
D.3	Wastewater	<ul style="list-style-type: none"> • Akinaka & Associates, Ltd. prepared a Wastewater Master Plan to identify and review the condition of the existing systems and analyze the existing systems for projected wastewater estimates for the project. • There is currently no existing County or privately owned or operated wastewater treatment system in the vicinity of the proposed project. 	<ul style="list-style-type: none"> • The construction of onsite Individual Wastewater Systems (IWS), decentralized Wastewater Treatment Plants (WWTP) and collection systems will be required to support development activity. • Each development within the industrial park will be required to provide its own wastewater treatment system and associated wastewater collection system. • The proposed design average wastewater flow for full buildout of the industrial park is 80,179 GPD, with a design peak flow of 333,688 GPD. • The wastewater system for the Miki Basin Industrial Park will be designed in conformance with the requirements of the DOH and the County of Maui to ensure proper handling and treatment of wastewater generated by the project.
D.4	Drainage	<ul style="list-style-type: none"> • R.M. Towill Corporation prepared a Drainage Report to determine that the offsite and onsite drainage system requirements for the proposed Miki Basin Industrial Park meet the County of Maui Storm Drainage Standards. • Offsite runoff generated from the area north of Miki Road sheet flows and is intercepted by an unlined ditch along Miki Road. Once in the unlined ditch, the runoff 	<ul style="list-style-type: none"> • The development of the proposed industrial parcels will increase the runoff onsite by 141.36 cubic feet per second (cfs). • The additional flow generated within the proposed parcels can be accommodated by the existing Miki Basin and Pālāwai Basin. • Existing drainage patterns will be maintained by discharging intercepted offsite runoff to its

Section	Category	Existing Conditions	Potential Impacts and Mitigation Measures
		<p>flows towards the southeast direction to a low point in Miki Road, near the existing MECO facility.</p> <ul style="list-style-type: none"> • There is no existing storm drain system within the project area. • Offsite runoff, including runoff generated from the MECO facility, is diverted around the Miki Basin Industrial Condominium site and is discharged into an existing drainageway. Runoff generated within the existing Miki Basin Industrial Condominium site is collected by an onsite drainage system and is discharged offsite. 	<p>original flow path. Offsite runoff will be collected by interceptor ditches located on the perimeter of the site that discharge to existing drainageway and ultimately to Miki Basin.</p> <p>The additional runoff volume is negligible compared to the available basin capacity. Stormwater treatment will not be provided for this project since the runoff flows into an existing offsite sump with no outlet to the ocean. Applicable law will be followed to minimize soil movement, erosion and compaction during all project actions.</p>
D.5	Electricity and Telephone Systems	<ul style="list-style-type: none"> • The MECO powerplant is adjacent to the proposed project and provides energy to Lāna'i Airport operations. The electrical service lines to the Airport are underground, running from Kaumālapa'u Highway along the Airport access road to the Airport. 	<ul style="list-style-type: none"> • The Miki Basin Industrial Park will include 127 acres for renewable energy projects, including photovoltaic equipment with battery energy storage. • The project is not anticipated to have an adverse impact on existing electrical, telephone, or cable television systems, nor is it expected to extend existing service area limits.



PROJECT OVERVIEW



I. PROJECT OVERVIEW

A. PROJECT LOCATION, EXISTING USE, AND LAND OWNERSHIP

Lānaʻi Resorts LLC, a Hawaiʻi Limited Liability Company doing business as Pūlama Lānaʻi (“Pūlama Lānaʻi” or “Applicant”) is proposing the Miki Basin Industrial Park, a 200-acre master-planned light and heavy industrial development. The project is located on a portion of Tax Map Key (TMK) (2)4-9-002:061, approximately 3.2 miles south of Kaumālapaʻu Highway in Lānaʻi City, Maui County, Hawaiʻi. See **Figure 1**.

The project site is on land adjoining the Lānaʻi Airport, the Maui Electric Company (MECO) 5-acre power plant and the existing 20-acre Miki Basin Industrial Condominium. See **Figure 2**. This project implements the vision for placement of industrial land uses on the island and expands upon the much-needed industrially zoned land area called for in the Lānaʻi Community Plan.

The approximately 200-acre subject property is largely vacant and is owned by Pūlama Lānaʻi. The subject property is designated “Agricultural” by the State Land Use Commission and “Light Industrial” and “Heavy Industrial” by the Lānaʻi Community Plan. The project site is also designated “Agricultural”, with a small portion designated “Interim” by Maui County Zoning.

An approximately 14.5-acre interim staging area has been established for industrial stockpiling and storage on a portion of the project area that borders the western side of the Miki Basin Industrial Condominium. The Applicant has applied for a Land Use Commission Special Permit (SUP2 2021-0008) for the temporary area in advance of obtaining a District Boundary Amendment (DBA) and Change of Zoning (CIZ) for the proposed Miki Basin Industrial Park. The SUP2 application also includes the relocation of an existing concrete recycling and rock crushing operation.

B. PROPOSED ACTION

The proposed Miki Basin Industrial Park will include 200 acres, as allocated in **Table 1** and further described below.

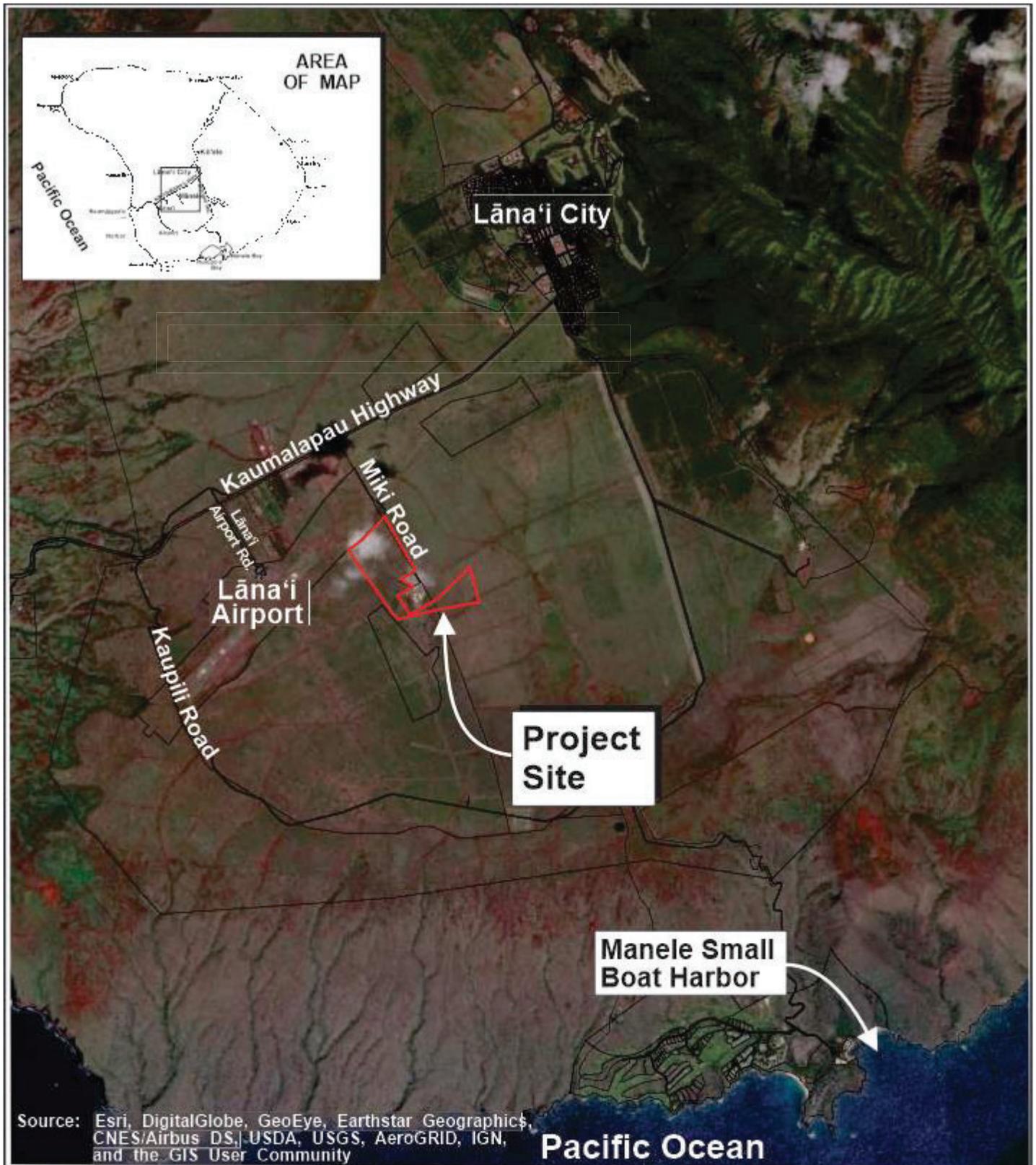
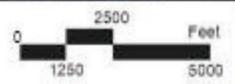


Figure 1

Miki Basin Industrial Park
Regional Location Map



Prepared for: Lanai Resorts LLC, a Hawaii Limited Liability Company doing business as Pūlama Lāna'i



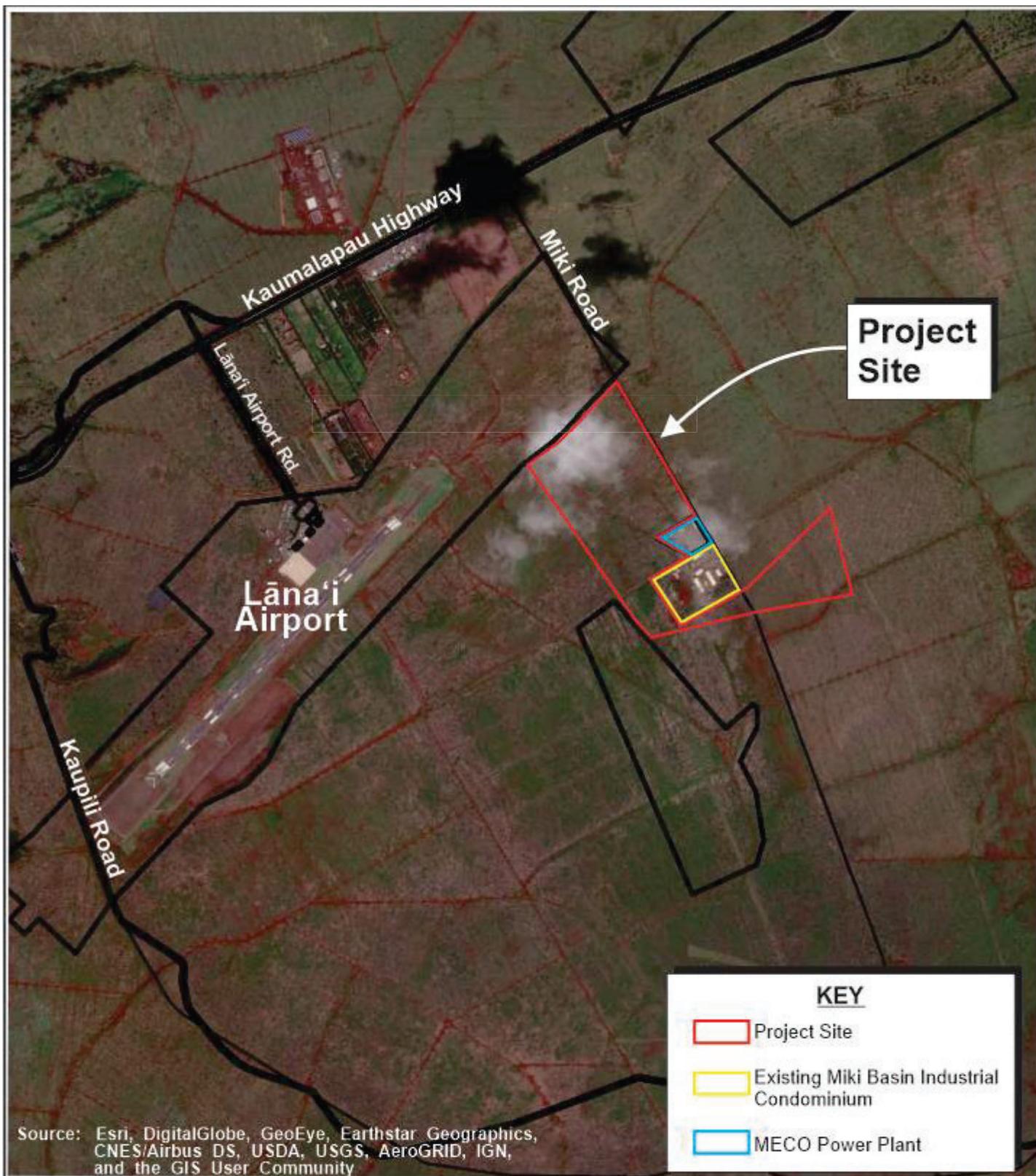
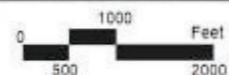


Figure 2

Miki Basin Industrial Park Project Area Map



Prepared for: Lanai Resorts LLC, a Hawaii Limited Liability Company doing business as Pūlama Lānaʻi



Table 1. Proposed Uses

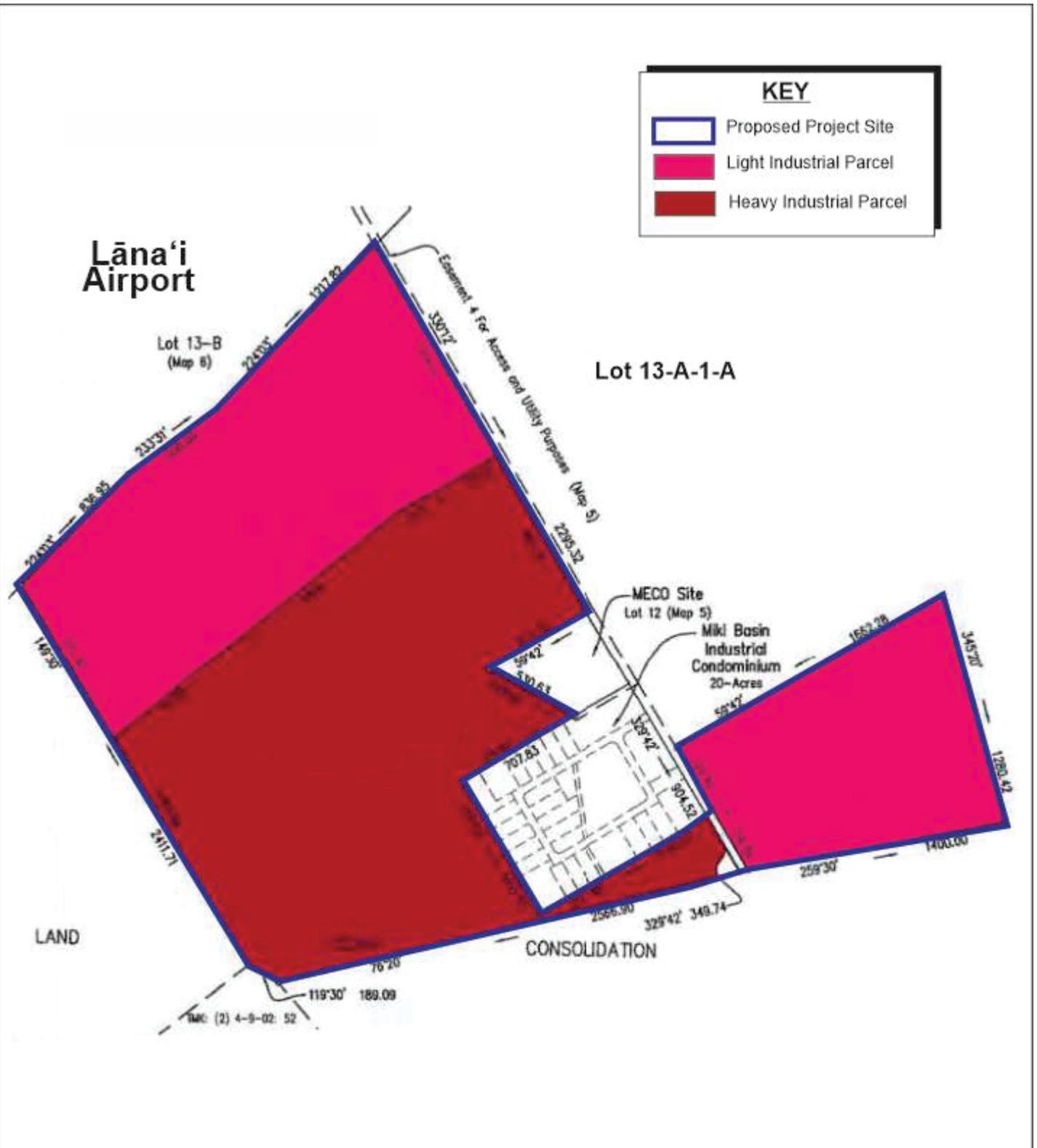
Use	Acres
Infrastructure (roads, common areas, etc.)	20 acres
Renewable Energy Projects	127 acres
Concrete Crushing and Recycling Operation	14.5 acres
Asphalt Plant	12.5 acres
Other Industrial Uses*	26 acres
Total	200 acres
*Other industrial uses will consist of industrial related uses allowed under "M-1, Light Industrial" and "M-2, Heavy Industrial" zoning. ¹	

The proposed Miki Basin Industrial Park will include 127 acres for renewable energy projects (e.g., photovoltaic plus battery energy storage), 20 acres for infrastructure purposes (10 percent of the project area which will be used for roads, common areas, and other related uses), 12.5 acres for the relocation of an existing asphalt plant from its current location near Kaumālapa‘u Harbor, and 26 acres for new industrial uses. The remaining 14.5 acres will be used for the relocation of an existing concrete recycling and rock crushing operation near the Mānele Project District and the 20-acre Miki Basin Industrial Condominium, and for the storage and stockpiling of aggregate and construction materials. The concrete recycling and rock crushing operation would involve the use of equipment to crush demolished concrete and rock into various sizes for use as an aggregate base course for roadways, sidewalks, or similar, as well as backfill material throughout the island for current and future construction projects. The source of these materials is from Pūlama Lāna‘i construction projects. See **Figure 3**.

Over 85 percent of the project area has been allocated for specific uses. The 26 acres of other new industrial uses will consist of industrial related uses allowed under "M-1, Light Industrial" and "M-2, Heavy Industrial" zoning. While the exact uses have not been identified at this time, possible new future industrial uses may include a slaughterhouse, warehouse space for cold storage, laboratory/testing facilities, niche product development, automotive services, multi-media facility, animal hospital, and other uses.

As a master-planned project, Pūlama Lāna‘i will develop the major common infrastructure, such as roads and electric and water utility lines. Individual tenants within the Miki Basin Industrial Park will be responsible for vertical development on their particular properties and for compliance with applicable regulatory requirements associated with their individual developments.

¹ See MCC 19.24 and 19.26 for M-1 Light Industrial District and Heavy Industrial District, respectively for more information.



Source: Pūlama Lāna'i

Figure 3 Miki Basin Industrial Park
Conceptual Site Plan



Prepared for: Lanai Resorts LLC, a Hawaii Limited Liability Company doing business as Pūlama Lāna'i



Pūlama Lanai/MikiBasin/Exp. 1769/Applications/Figures/Conceptual Site Plan

C. PROJECT PURPOSE AND NEED

The proposed Miki Basin Industrial Park will provide much needed industrial land on Lānaʻi, and a much needed industrial park. Currently, vacant industrial land is not available on the island. The project will provide space for the relocation and/or expansion of existing industrial activities on Lānaʻi, land and warehouses for storing goods and equipment, and land and buildings to accommodate industrial activities new to Lānaʻi. Readily available industrial land is important to take immediate advantage of any new economic opportunities which may arise.

According to the Market Assessment prepared for the project, pent-up demand for industrial land and industrial space to accommodate “typical industrial activities” (i.e., manufacturing, warehouses, base yards, etc.) is readily apparent on Lānaʻi. Many businesses in Lānaʻi City are operated from homes, partly because there are no industrial parks on Lānaʻi that serve smallscale tenants. Yards and rooms are used for operations and to store equipment and supplies. In some cases, inadequate space may be limiting local companies’ ability to expand. For some of these businesses, an industrial park may be a more suitable location because of more space, visual impacts, noise, odors, dusts, etc. Many of these home businesses provide a second source of income for workers employed elsewhere on Lānaʻi. If industrial space were available, some business owners might opt to expand their companies into full-time operations. In other cases, businesses are operated from vans and residences, and some might benefit from a permanent location in an industrial park. In addition, some industrial activities may fail to develop on Lānaʻi due to a lack of a suitable location.

Commitments are in place for 174 acres of the Miki Basin Industrial Park, representing over 85 percent of the project area. The Market Assessment anticipates additional demand for 7.6 acres for “typical industrial activities” (such as manufacturing, warehouses, baseyards, etc.) by 2030. The remaining 18.4 acres will provide land to take advantage of unforeseen new economic opportunities which may arise, and to accommodate the demand for industrial land beyond 2030. See **Appendix “A”**.

D. CHAPTER 343, HAWAI‘I REVISED STATUTES

Intersection improvements at Kaumālapaʻu Highway in the vicinity of Miki Road will be required. Kamālapaʻu Highway is a State roadway. The use of State lands triggers the need to prepare an Environmental Assessment (EA) pursuant to Chapter 343, Hawaiʻi Revised Statutes (HRS). The State of Hawaiʻi, Land Use Commission will serve as the Approving Agency for the EA. It is noted that a Draft EA was published for the Miki Basin Industrial Park on November 23, 2019. However, since the original publication of the Draft EA, additional information on the proposed project has been developed, including greater detail about the proposed uses within the project. The additional detail on proposed uses

within the Miki Basin Industrial Park has allowed for updated technical studies to be prepared. In light of the foregoing, a second Draft EA was prepared for the proposed project.

This EA has been prepared pursuant to Chapter 343, HRS and Chapter 11-200.1, Hawai'i Administrative Rules (HAR), and evaluates the potential impacts of the proposed relocation, describes proposed mitigation measures as required, discloses cumulative and secondary impacts, and describes alternatives to the proposed action considered.

E. OTHER REGULATORY CONSIDERATION

The subject property is designated “Agricultural” by the State Land Use Commission and “Light Industrial” and “Heavy Industrial” by the Lāna’i Community Plan. The project site is also designated “Agricultural”, with a small portion designated “Interim” by Maui County Zoning. The Applicant will seek a District Boundary Amendment (DBA) from the State of Hawai'i Land Use Commission (SLUC) to designate the subject property “Urban”, as well as a Change of Zoning (CIZ) request to the Maui County Council for “M-1, Light Industrial” and “M-2, Heavy Industrial” designation. The EA will serve as the primary supporting document for the DBA and CIZ processes.

F. PROJECT COST AND TIME SCHEDULE

Full buildout of the proposed 200-acre Miki Basin Industrial Park will be developed incrementally over a period of 20 years. The first half of the potential development timeline includes the relocation of the existing concrete recycling and rock crushing operation and existing asphalt plant, as well as the construction of renewable energy projects. The new industrial uses will be implemented throughout the duration of the project. See **Table 2**.

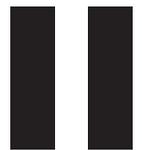
Table 2. Project Phasing

Identified Use (Community Plan)	Year 1 to 10	Year 11 to 20
Heavy Industrial Use (M-2)	<ul style="list-style-type: none"> Relocating existing industrial uses (i.e., concrete recycling and rock crushing operation and existing asphalt plant) 	
Heavy and Light Industrial Use (M-2 and M-1)	<ul style="list-style-type: none"> Renewable energy projects (e.g., Photovoltaic plus battery energy storage) <ul style="list-style-type: none"> Current Request For Proposals include an expected guarantee commercial operation date (GCOD) of August 2025, developers are encouraged to have a GCOD date of December 2024 Other New industrial uses 	<ul style="list-style-type: none"> Other New industrial uses

Over the initial 10-year development period, the estimated development cost for the Miki Basin Industrial Park is \$78.8 million.



**DESCRIPTION OF THE
EXISTING ENVIRONMENT,
POTENTIAL IMPACTS, AND
MITIGATION MEASURES**



II. DESCRIPTION OF THE EXISTING ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

A. PHYSICAL SETTING

1. Surrounding Land Uses

a. Existing Conditions

The proposed Miki Basin Industrial Park will be located in an area that is approximately four (4) miles southwest of Lānaʻi City on land adjoining the Lānaʻi Airport, the Maui Electric Company (MECO) 5-acre power plant and the existing 20-acre Miki Basin Industrial Condominium. Kaumālapaʻu Highway is located to the north, while Miki Road runs through the project area. Beyond Kaumālapaʻu Highway and along Miki Road are largely vacant, undeveloped lands that were formerly used for pineapple cultivation.

b. Potential Impacts and Mitigation Measures

The Miki Basin Industrial Park will be located on lands formerly part of a large pineapple plantation. The lands have lain fallow since the plantation closed in 1992, and are now overgrown with a dense grassland and shrubs. The proposed Miki Basin Industrial Park will be compatible with existing industrial uses on neighboring properties and has been designated by the Lānaʻi Community Plan for industrial use. In this regard, the proposed action is not anticipated to have significant adverse effects on the neighboring facilities or the Lānaʻi Airport. Building the industrial park will allow existing industrial facilities currently scattered in business and residential areas in Lānaʻi City to relocate to more appropriate locations having the infrastructure and buffers necessary for industrial uses.

2. Climate

a. Existing Conditions

Like most areas of Hawaiʻi, the climate of Lānaʻi is relatively uniform year round. The tropical latitude of Lānaʻi, its position relative to storm tracts and the Pacific anticyclone, and the surrounding ocean combine to produce this stable climate. Variation in climate among different regions on Lānaʻi is largely left to local terrain. Daily temperatures in the region range between

an average low of 67.8 degrees and a high of 75.1 degrees Fahrenheit. Temperature data collected at the Lānaʻi Airport station show that on average, January is the coolest month and August as the warmest month (County of Maui, Office of Economic Development, 2019).

Recent rainfall gauge data was not available for Lānaʻi Airport, however, past data shows that rainfall in the region is seasonal, with the wettest month being January and the driest month being July. Precipitation data for Lānaʻi shows an average annual rainfall of 15.59 inches (County of Maui, Office of Economic Development, 2019).

b. Potential Impacts and Mitigation Measures

The proposed Miki Basin Industrial Park involves a 200-acre master-planned light and heavy industrial development. The proposed project is not anticipated to adversely impact climatic conditions in and around the area.

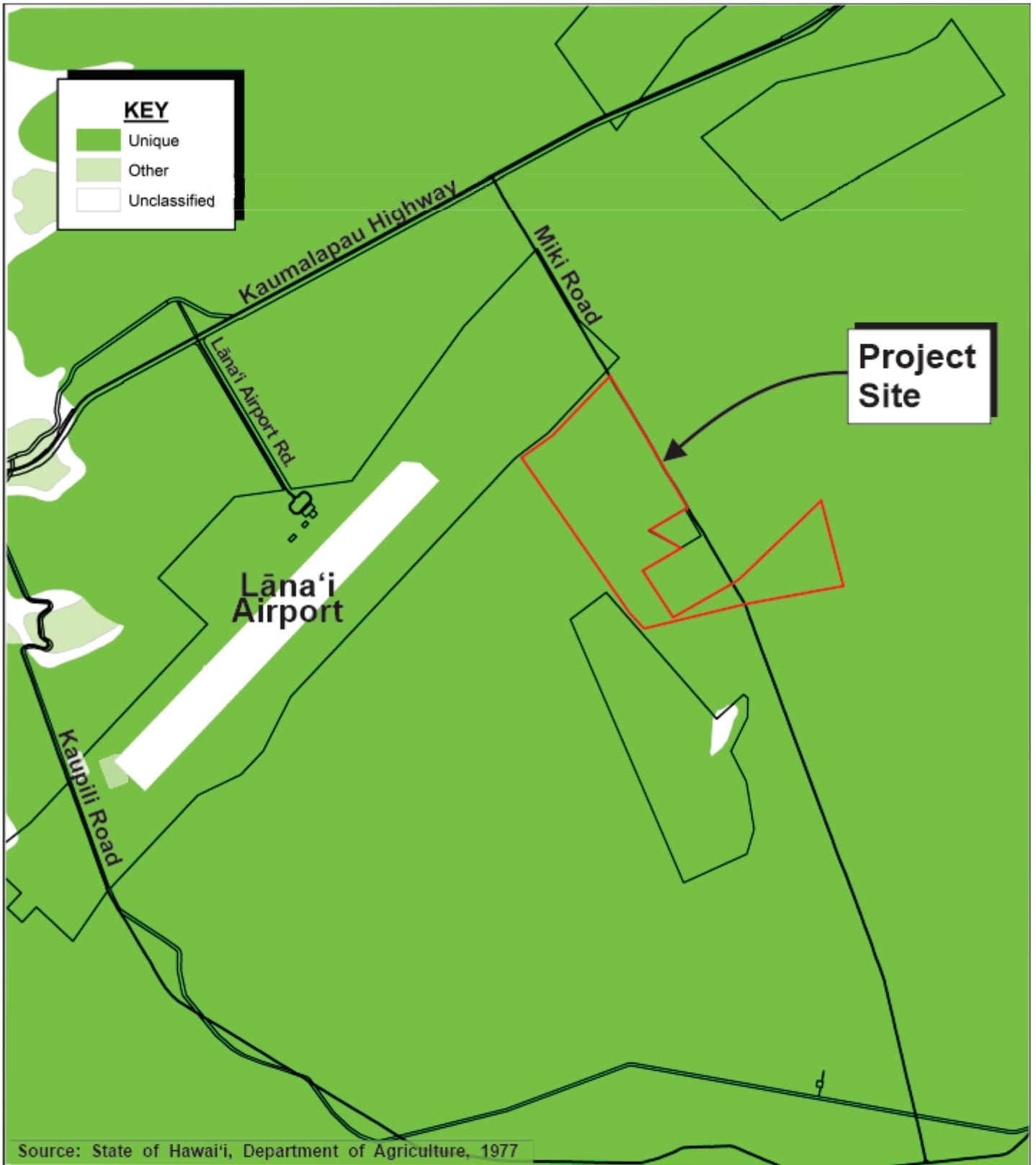
3. Agriculture

a. Existing Conditions

In 1977, the State of Hawaiʻi, Department of Agriculture developed a classification system to identify Agricultural Lands of Importance to the State of Hawaiʻi (ALISH), based primarily, though not exclusively, on soil characteristics of the underlying land. The three (3) classes of ALISH lands are “Prime”, “Unique”, and “Other Important” agricultural land, with the remaining non-classified lands termed “Unclassified”. When utilized with modern farming methods, “Prime” agricultural lands have soil quality, growing season, and moisture supply needed to produce sustained crop yields economically; while “Unique” agricultural lands contain a combination of soil quality, growing season, and moisture supply to produce sustained yields of a specific crop. “Other Important” agricultural lands include those important agricultural lands that have not been rated as “Prime” or “Unique”.

The proposed Miki Basin Industrial Park site is located on lands designated as “Unique” given its historic use for pineapple cultivation. See **Figure 4**.

Additionally, the University of Hawaiʻi (UH) 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



Source: State of Hawaiʻi, Department of Agriculture, 1977

Figure 4

Miki Basin Industrial Park
Agricultural Lands of Importance
to the State of Hawaiʻi Map



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Pūlama Lanai/MKBasinExp 1769/Applications/Figures/ALIGH

and “E” representing the lowest. The underlying land for the proposed Miki Basin Industrial Park is characterized by a low productivity rating of “D” for agriculture by the LSB soils rating system. Furthermore, a small portion of the project area has the lowest LSB soils rating of “E.” See **Figure 5**.

Plasch Econ Pacific Inc. and Munekiyo Hiraga prepared an Impacts on Agriculture report, analyzing potential impacts the project has on agricultural resources. See **Appendix “B”**.

The report considers the agricultural conditions of the proposed project area, past agricultural uses of the land, the impact of the project on existing agricultural operations in and near the project area, the impact of the project on the growth of diversified-crop farming, benefits of the project that would offset adverse agricultural impacts, and consistency of the project with State and County agricultural policies.

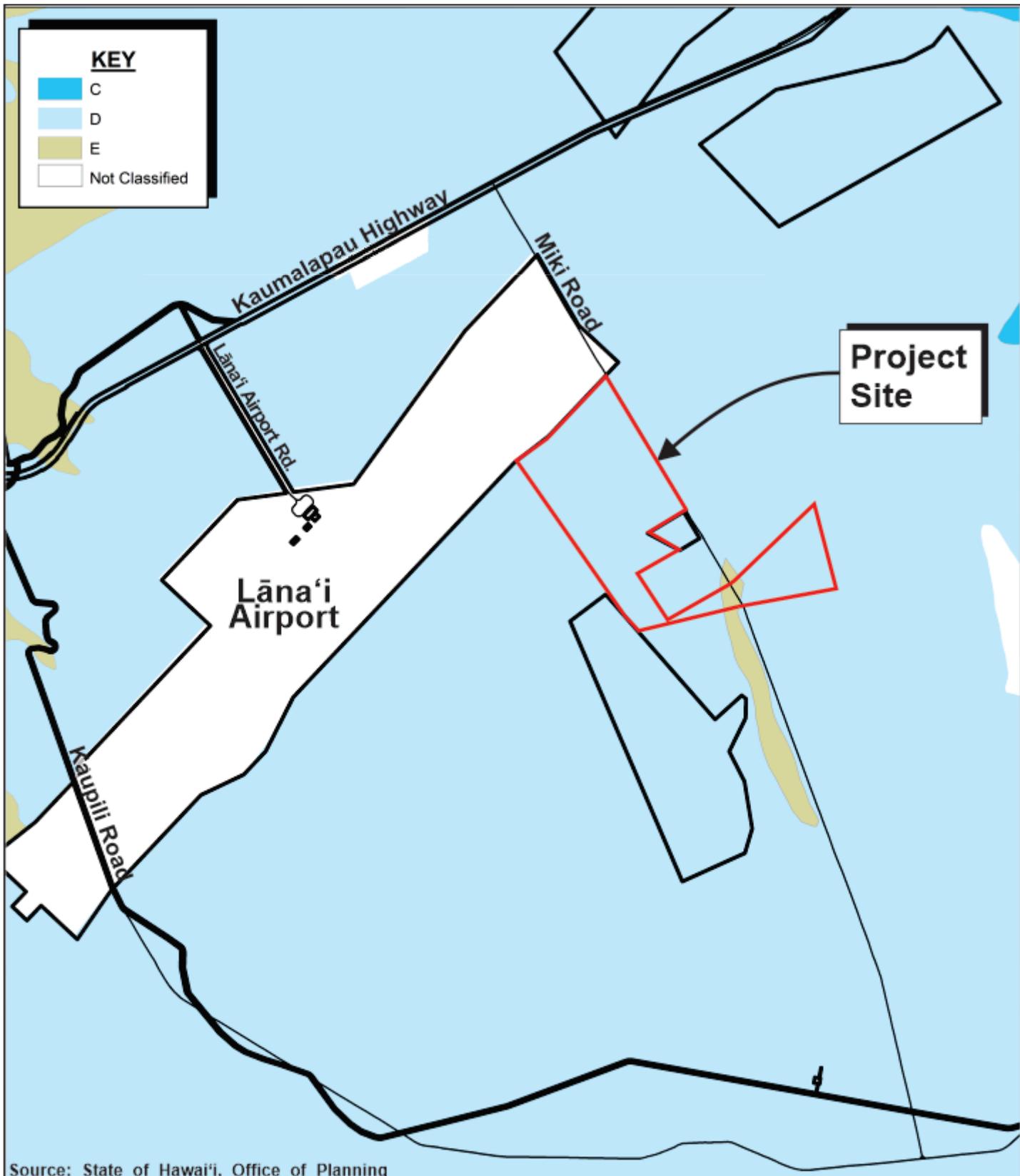
Land in the project area exhibits a number of favorable characteristics for farming, including gently sloping and well drained soils. However, due to the lack of available irrigation water, the project area is not suitable for intensive field farming. The project area and surrounding fields were used for a pineapple production, which only requires relatively little water, from the 1920s to 1992. Since then, the project area and the surrounding fields have been fallow.

The report, prepared in February 2019, identified only one (1) commercial farmer operating on Lāna‘i and noted some part-time farmers who grow crops for personal consumption, and some sell to grocery stores. Since that time, Sensei Farms Lāna‘i has commenced operations of a hydroponic farm and is currently providing fresh produce to businesses on island and exporting to all the major Hawaiian Islands.

b. Potential Impacts and Mitigation Measures

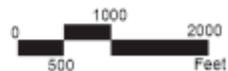
Although the development of the proposed project will result in a loss of 200 acres of agricultural lands on Lāna‘i, the lands are characterized by a low productivity rating and have not been cultivated since the pineapple plantation closed in 1992.

Furthermore, the 200-acre site amounts to only 1.1 percent of the approximately 18,000 acres of former plantation lands on Lāna‘i that remain available for agricultural use.



Source: State of Hawai'i, Office of Planning

Figure 5 Miki Basin Industrial Park
Land Study Bureau Map



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The lack of significant growth of diversified crops reflects increased competition resulting from technology and other advances that have improved the delivery of fresh produce (faster, less spoilage, better coordination of supply to demand), along with trade agreements which increased food exports to the U.S. from low-cost producers in Mexico, Central America, South America, and elsewhere. While trucking distances to Lānaʻi City and Mānele Resort are short, Lānaʻi farmers are at a competitive disadvantage in supplying the Oʻahu and mainland markets because of shipping costs. Refer to **Appendix “B”**.

The loss of 200 acres of agriculture land on Lānaʻi, plus the loss of agricultural land due to other projects (i.e., the cumulative impact), is too small to affect the growth of diversified agriculture on Lānaʻi or Statewide.

Sensei Farms Lānaʻi has developed a hydroponic farm to supply fresh produce to local markets, and to off-island markets. There are currently six (6) greenhouses in operation, which are powered by an off grid photovoltaic and battery energy storage system. There are plans to expand the operations.

The loss of 200 acres of agricultural land will be offset by the benefits of the project, including:

- (1) employment generated by construction activity and onsite commercial and industrial activity;
- (2) offsite economic activity generated by the purchases of goods and services by construction companies and the families of construction workers;
- (3) tax revenues derived from County property taxes and State taxes (excise, personal income, and corporate income); and
- (4) goods and services provided by businesses of the project.

The project will not have any adverse effects on any existing onsite agricultural operations since the land has not been cultivated since the pineapple plantation closed in 1992. Therefore, the impacts on agriculture will be less than significant.

4. Topography and Soils Characteristics

a. Existing Conditions

The project area is situated on gently to moderately sloping lands that were part of a large pineapple plantation. These lands have lain fallow since the plantation closed in 1992, and are now overgrown with a dense grassland and shrubs.

Soils consist of three (3) series characterized as Waikapū silty clay loam (WRA, 0 to 3 percent slopes), Molokai silty clay loam (MuA, 0 to 3 percent slopes; MuB, 3 to 7 percent slopes; MuC, 7 to 15 percent slopes and Uwala silty clay loam (UwB, 2 to 7 percent slopes; UwC, 7 to 15 percent slopes), which are all variants of deep, well-drained soils of the upland plateau of Lānaʻi (U.S. Department of Agriculture (USDA), 1972). See **Figure 6**.

b. Potential Impacts and Mitigation Measures

Grubbing and grading will be required for project implementation. The project will comply with Chapter 20.08, Soil Erosion and Sediment Control, of the Maui County Code. An erosion control plan will be prepared to minimize soil erosion from wind and rain, and, if applicable, a grading plan will be prepared and submitted for review and approval to the Development Services Administration, County of Maui, Department of Public Works. No significant impacts on geological resources are noted.

Both short-term construction and long-term maintenance Best Management Practices (BMPs) will be included in any permit conditions. Implementation of BMPs will ensure that the alterations to the terrain minimize erosion, water quality degradation and other environmental impacts. Upon completion of construction, significant adverse impacts to topography or soil characteristics are not anticipated.

5. Flood, Tsunami Hazards and Sea Level Rise

a. Existing Conditions

As indicated by the Flood Insurance Rate Map for the County of Maui, the project site is located within Zone X. The Zone X designation corresponds to areas of minimal flood hazard, which are the areas outside the Special Flood Hazard Area and higher than the elevation of the 0.2-percent annual chance flood. See **Figure 7**.

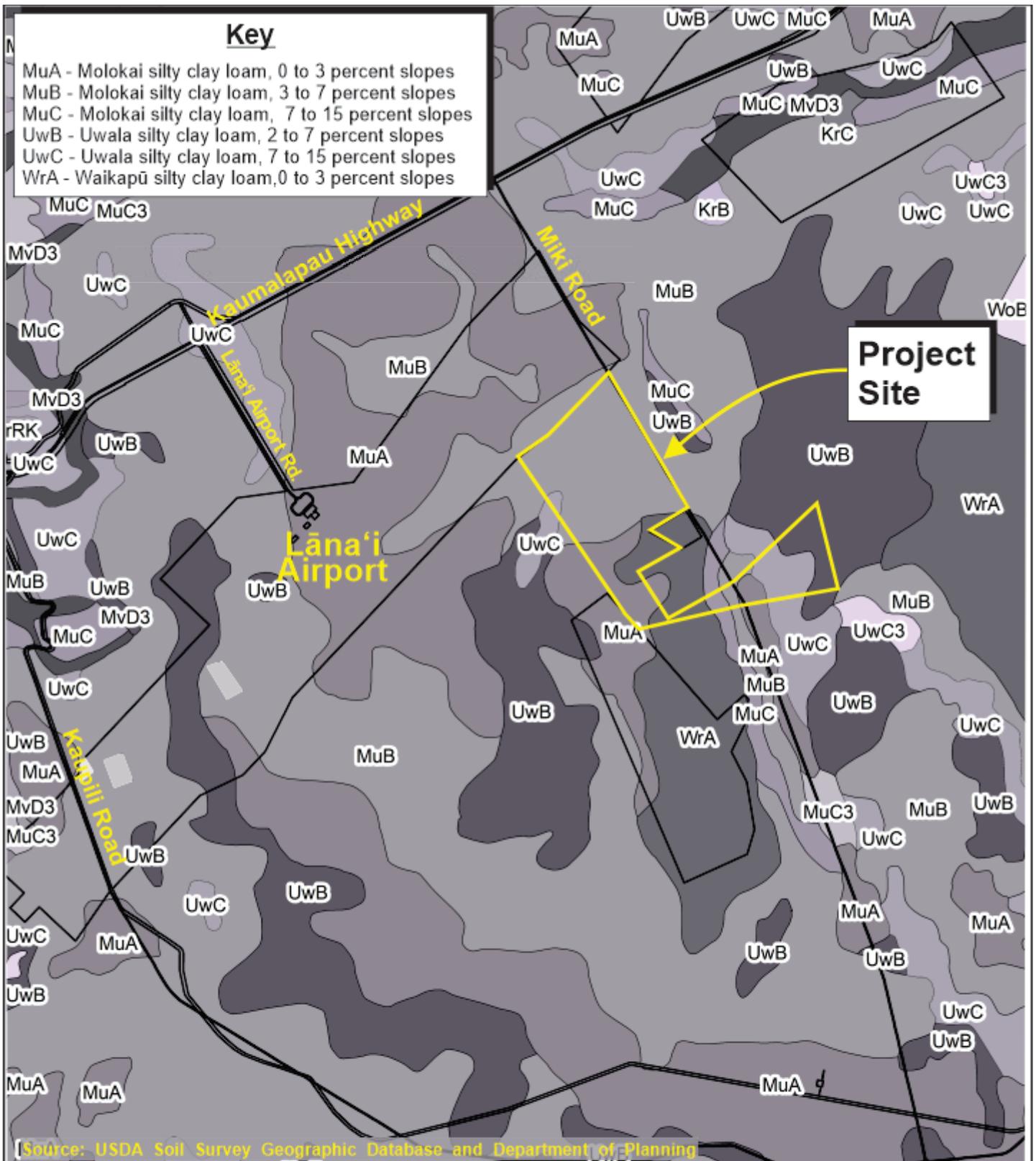
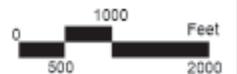


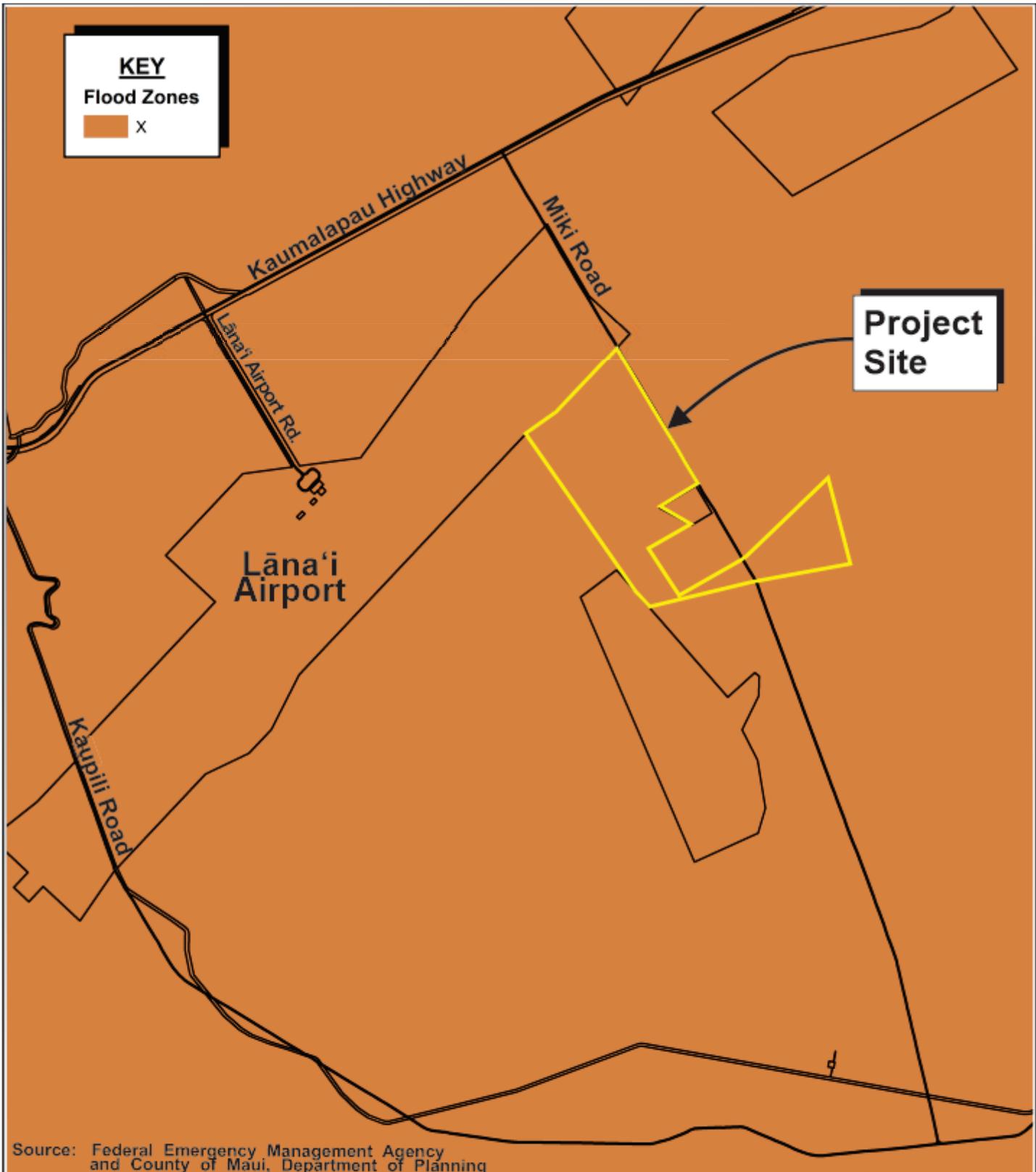
Figure 6 Miki Basin Industrial Park
Soil Classification Map



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Pūlama Lānaʻi/MikiBasinExp 1769/Applications/Figures/SC/LG



Source: Federal Emergency Management Agency and County of Maui, Department of Planning

Figure 7 Miki Basin Industrial Park
Flood Insurance Rate Map



Prepared for: Lanai Resorts LLC, a Hawaii Limited Liability Company doing business as Pūlama Lāna'i



Pūlama Lanai/MikiBasinExp 1769/Applications/Figures/FIRM

The proposed project is approximately 3.5 miles inland from the shoreline and at a significantly high elevation, thus, the project site is not subject to any foreseeable negative impacts from tsunamis or sea level rise. The proposed improvements are located outside of the projected 3.2-ft. sea level rise hazard area as identified in the Hawai'i Sea Level Rise Vulnerability and Adaptation Report published in 2017 by the Hawai'i Climate Change Mitigation and Adaptation Commission

b. Potential Impacts and Mitigation Measures

Due to the project location, significant adverse impacts related to flood hazards, tsunamis, or sea level rise are not anticipated.

6. Streams and Wetlands

a. Existing Conditions

Although historical evidence suggests the existence of perennial streams, no surface water resources currently exist on the island. There are also no wetlands located on or in the immediate vicinity of the proposed project site (County of Maui, Department of Water Supply, 2011).

b. Potential Impacts and Mitigation Measures

No surface water resources currently exist on Lāna'i, thus there will be no impacts to streams or wetlands.

7. Flora and Fauna

a. Existing Conditions

Robert Hobdy prepared a Flora and Fauna Study for the proposed project in April 2018. See **Appendix "C"**.

(1) Flora

The entire project area has lain fallow from agricultural use for 25 years, with some grazing occurring during a few of these years. The vegetation was a dense growth of grasses and shrubs. Thirty-nine (39) plant species were recorded during the survey. Two (2) species were abundant throughout the project area, Guinea grass (*Megathyrsus maximus*) and lantana (*Lantana camara*). Another two (2) species were common, sourgrass (*Digitaria insularis*) and Madagascar fireweed (*Senecio madagascariensis*). The remaining 35 species were either of uncommon or rare occurrence.

Just three (3) common native plant species were found, 'ilima (*Sida fallax*), 'uhaloa (*Waltheria indica*) and 'a'ali'i (*Dodonaea viscosa*), all of which are widespread and common throughout Hawai'i. These have persisted here in small numbers due to their hardy nature.

(2) **Fauna**

Just one (1) mammal species was observed in the project area. A herd of about 20 axis deer was seen and trails, tracks and feeding damage were everywhere. A special effort was made to look for evidence indicating the presence of ōpe'ape'a, or Hawaiian hoary bat, by conducting an evening survey at two (2) locations within the project area. A bat detecting device was employed, set to frequency of 27,000 Hertz that these bats are known to use when echolocating for flying insects. No bats were detected with the use of this device.

Other non-native mammals likely to frequent this area include rats (*Rattus spp.*), mice (*Mus domesticus*), feral cats (*Felis catus*) and occasionally domestic dogs (*Canis familiaris*).

Birdlife was of moderate occurrence in the project area. Twelve (12) species were noted in the Flora and Fauna Study. Eight (8) bird species were of modest occurrence, cattle egret (*Bubulcus ibis*), zebra dove (*Geopelia striata*), nutmeg mannikin (*Lonchura punctulata*), gray francolin (*Francolinus pondicerianus*), northern mockingbird (*Mimus polyglottos*), common myna (*Acridotheres tristis*), Eurasian sky lark (*Alauda arvensis*), and Pacific golden-plover (*Pluvialis fulva*). The other four (4) species were of rare occurrence.

Two (2) native bird species were recorded, the indigenous and migratory kōlea or Pacific golden-plover and the endemic pueo or Hawaiian owl (*Asio flammeus sandwichensis*). A few other non-native bird species may occasionally occur in this area, but this habitat is unsuitable for Hawai'i's native forest birds or seabirds.

Insect life was rather sparse in this habitat and no native insect species were seen.

b. **Potential Impacts and Mitigation Measures**

(1) **Flora**

According to the Flora and Fauna Study, the vegetation in the project area is dominated by hardy, invasive non-native species. Just three (3) common native plant species, 'ilima, 'uhaloa and 'a'ali'i, were found, none of which are of any conservation concern. No special habitats for native plants were found. Because of the above information, it is determined that there is nothing of special botanical concern with regard to this project. No recommendations with reference to plants were deemed necessary. Refer to **Appendix "C"**.

(2) **Fauna**

The fauna recorded in this project area is largely non-native in character. Axis deer are abundant throughout the area and have significantly modified the habitat by reducing plant species to a few hardy dominants. This in turn has a somewhat limiting effect on resource availability for other mammals, birds and insects.

Two (2) indigenous seabirds, the endangered 'ua'u and the threatened 'a'o, while not nesting in the project area, do fly over it during dusk to access their burrows high in the mountains and again at dawn to head out to sea. Young birds taking their first fledging flights are inexperienced fliers. They often are disoriented by bright lights and crash into light structures where they become vulnerable to injury and predators. The Flora and Fauna Study recommended that any significant outdoor lighting associated with the proposed project be hooded to direct the light downward to mitigate this threat.

No other recommendations with reference to fauna were deemed necessary in the study. Refer to **Appendix "C"**.

The U.S. Fish and Wildlife Service (USFWS) was consulted for the proposed project and recommended avoidance and minimization measures be implemented for the project as it relates to the endangered Hawaiian petrel (*Pterodroma sandwichensis*) which may occur in the vicinity or pass through the project area:

- The proposed project will use appropriate lighting so as not to unnecessarily attract seabirds.

- The project will not have nighttime construction occurring during the fledging season (September 15 through December 15).
- Use of lower-power (180 Watt) monochromatic and low-pressure sodium lighting (as opposed to the more common full-spectrum and high-pressure sodium lighting), which provides high contrast with sharply reduced brightness and glare, yet the yellow light does not attract insects and is not believed to be used for avian navigation.
- Use of light fixtures with “top-visor” shielding to minimize the potential for stray light up-scatter and side-scatter, so that the bulb is not visible at lamp height from the side.
- Installation of automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.
- Limiting light levels and hours of use to the minimum levels allowable under Occupational Safety and Health Administration (OSHA) worker safety and security.

The USFWS also provided additional information on listed species that may occur or transit through the proposed project area, along with recommended avoidance and minimization measures for the Hawaiian hoary bat, Blackburn's sphinx moth, and Hawaiian seabirds. See **Chapter IX**. The measures will be incorporated into the project plans, as applicable.

8. **Archaeological Resources**

a. **Existing Conditions**

T. S. Dye & Colleagues, Archaeologists prepared an Archaeological Inventory Survey (AIS) with subsurface testing, for the Miki Basin Industrial Park on May 9, 2018. See **Appendix “D-1”**. The State Historic Preservation Division (SHPD) accepted the AIS on August 4, 2020. See **Appendix “D-2”**.

A 100 percent pedestrian survey of the area was conducted and 31 backhoe trenches were excavated. No artifacts were collected from any of the trenches excavated.

The pedestrian and survey subsurface testing resulted in the identification and documentation of two (2) secondarily deposited historic scatters and two (2) historic properties, designated Site 50-40-98-1980 and Site 50-40-98-1981. Site 50-40-98-1980 is comprised of two (2) features including a lithic scatter and an eroded exposed fire-pit. Site 50-40-98-1981 is a subsurface truncated fire-pit feature. Both historic properties are evaluated as significant for the important information on Hawaiian history and prehistory that they have yielded.

b. Potential Impacts and Mitigation Measures

The AIS recommended that a data recovery plan be developed for Sites 50-40-98-1980 and 50-40-98-1981, and that this plan be implemented prior to proposed construction activities within the parcel. SHPD concurred with this recommended mitigation. Refer to **Appendix “D-2”**. The Applicant has prepared an Archaeological Data Recovery Plan and Archaeological Data Recovery Report that have been submitted to SHPD for review. See **Appendix “D-3”**.

The AIS also noted that the two (2) secondary artifact scatters lack integrity of setting, location, and association with other sites and features, and thus do not represent historic properties. No further investigations of the scatters are warranted.

The Applicant will comply with all applicable County, State and Federal laws and rules regarding the treatment of archaeological and historic sites. Should evidence of archaeological or cultural resources be encountered during site preparation work or during drilling, then activities at the site will be suspended and Pūlama Lāna‘i and the SHPD will be contacted immediately for review, evaluation, and recommendations on how to preserve or avoid damage to the resources.

9. Cultural Resources

a. Existing Conditions

Attestation letters, interviews with lineal descendants of Lāna‘i, and a Ka Pa‘akai Analysis and Determination were conducted to provide cultural background and research of the proposed project area. See **Appendix “D-4”**.

The AIS prepared for the proposed project included research compliant with guidelines for development of a Cultural Impact Assessment (CIA) study. Two (2) letters from Kepā Maly confirmed the requirements required

under the Hawai'i Supreme Court's holding in Ka Pa'akai O Ka 'Aina v. Land Use Commission, State of Hawai'i, 7 P.3d 1068, 94 Hawai'i 31 (2000). Information from these letters is provided below. Refer to **Appendix "D-4"**.

The AIS includes descriptions of traditional knowledge of place, and traditional and customary practices as documented in Hawaiian language accounts from Lāna'i. There are also cited important historical accounts penned by foreign residents and visitors, documenting the changes in land use, access and residency from the 1840s to the 1950s.

As a result of the rapid decline of the native Hawaiian population on Lāna'i, and early control of nearly all the land on the island by non-native business interests, little documentation pertaining to the extent to which traditional and customary native Hawaiian rights might be exercised in the project area survived the passing of time. No native tenant kuleana (property rights) or Royal Patent Grants were issued for lands within the project area. By the 1870s, control of the petition area lands was held under one (1) individual, who also posted notices advising against trespass. By the 1920s, the entire area was dedicated to cultivation of pineapple. Through the 1930s, the project area included a residential field camp for Japanese employees of the plantation and their families.

Cultivation of pineapple and maintenance of support infrastructure, such as roadways, waterlines and stockpile sites, were the only land uses in the area until the close of the plantation in 1992. The project area was completely cleared and cultivated in pineapple for nearly 70 years. The land was bulldozed, plowed, graded, and planted with pineapples multiple times during that period. Because of the heavy use of pesticides and growth hormones, it would have been highly unlikely that plants of medicinal or other cultural uses would have been gathered across these fields.

Since the close of the pineapple plantation over 30 years ago, a few native plant species have volunteered across the nearly 20,000 acres of former pineapple fields. Most notable are the indigenous 'a'ali'i (*Dodonaea viscosa*), 'ilima (*Sida fallax*), naio (*Myoporum sandwicense*), and the 'uhaloa (*Waltheria indica*). While each of the plants have cultural value and uses, none are rare, and all grow throughout the Pālāwai-Miki Region of Lāna'i.

b. Potential Impacts and Mitigation Measures

The Ka Pa'akai Analysis and Determination consisted of three (3) parts in evaluating the proposed site for the Miki Basin Industrial Park:

- (1) The identification of valued cultural, historical, or natural resources in the project area, including the extent to which traditional and customary native Hawaiian rights are exercised in the project area.
- (2) The extent to which those resources—including traditional and customary native Hawaiian rights—will be affected or impaired by the proposed action.
- (3) The feasible action, if any, to be taken to reasonably protect native Hawaiian rights if they are found to exist.

There were references to gathering of ‘a‘alii and ‘uhaloa in the project area for adornments and la‘au lapa‘au by one of the interviewees. Therefore, per the Ka Pa‘akai analysis, the first test identified cultural resources and traditional practices in the project area.

The second test considers potential impacts to these resources and practices resulting from the proposed project. Both ‘a‘alii and ‘uhaloa are common throughout the Pālāwai-Miki Region of Lāna‘i and prevalent in the surrounding areas of the project, which is also noted by Kepā in his letter dated September 24, 2019. The project is not anticipated to affect the availability of these cultural resources and the project will not affect access to these resources in the region. Therefore, the project is not anticipated to have an impact on this practice in the ahupua‘a.

Both interviewees also mentioned deer hunting for subsistence. Although not a traditional cultural practice due to the lack of deer present in pre-contact Hawai‘i, it should be noted that Pūlama Lāna‘i manages hunting in the area and deer is abundant in the vicinity of the project area. The project will not affect access to deer for subsistence hunting.

One of the interviewees mentioned a cave in the project area and the use as a lookout for canoes. In the AIS, the extensive research did not reveal either a cave or the use of the area as a lookout for canoes.

Due to the project’s lack of impact to traditional or customary practices, feasible action to be taken to reasonably protect native Hawaiian rights is not required.

10. **Air Quality**

a. **Existing Conditions**

The State of Hawai'i, Department of Health (DOH), Clean Air Branch (CAB) maintains air quality monitoring stations throughout the state; however, no monitoring stations are located on the island of Lāna'i. While airplane exhaust from landing and departing aircrafts and emissions from the MECO power plant may affect the surrounding area, air quality in the region is generally good due to the prevailing trade winds.

b. **Potential Impacts and Mitigation Measures**

In the short term, construction related activities for the proposed project will be the primary source of airborne pollutants affecting the surrounding area. Site work involving clearing, grubbing, and grading operations will generate fugitive dust. Appropriate BMPs, such as frequent watering of exposed surfaces and regular maintenance of construction equipment, will be utilized to minimize air quality impacts associated with project construction.

From a long-term perspective, any future industrial activities which may have air quality impacts will be regulated by the DOH. As previously noted, 127 acres of the Miki Basin Industrial Area will be utilized for renewable energy projects (photovoltaic plus battery storage), which will not generate adverse air quality impacts. Other future uses include the relocation of an existing concrete recycling and rock crushing operation, and for the storage and stockpiling of aggregate and construction materials.

Stockpile sites are generally left uncovered based on the need to transfer aggregate materials into and out of storage frequently. The generation of dust is the primary emission or by-product associated with the stockpile site. Dust can be generated during the process of building the stockpile when the materials are subject to being moved, and from strong wind, and when the material is moved from the stockpile into waiting trucks.

BMPs employed at the site to address these problems would principally consist of adhering to environmental regulations for the storage and use of the aggregate stockpiles. The stockpile sites will be separated from each other to ensure against inadvertent mixing of dissimilar materials, and moisture will be controlled to prevent degradation of the different aggregate grades stored onsite.

Dust control would be handled by use of regular wetting of the crushed concrete and rock, and materials storage areas with a sufficient amount of

water to saturate the area without causing runoff. The water for the water truck will be supplied by the Lānaʻi Water Company.

While specific uses for the 26 acres of new industrial space have not been solidified, many of the potential uses contemplated generally do not represent noxious uses such as warehouses and testing facilities, and would not be a source of air pollution. It is noted that before any air pollution sources can be built, an application must be filed with the DOH with detailed information on such sources. If deemed appropriate, the DOH may require the applicant to assess the air quality impact of the proposed emissions. A permit from the DOH will be required for air pollution sources.

11. **Greenhouse Gas Considerations**

a. **Existing Conditions**

Greenhouse gases (GHG) (carbon dioxide, methane, nitrous oxide, and fluorinated gases) trap heat in the earth's atmosphere. In the context of climate and ocean warming, increases in levels of atmospheric GHG have been attributed to human activity (IPCC, 2017). 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 89.7 percent of GHG emissions (Hawai'i Department of Health, 2019). Other sources of GHG emissions include industrial facilities, agriculture and forestry, and waste treatment, such as landfills, composting, and wastewater treatment.

The Federal Greenhouse Gas Reporting Program (40 CFR Part 98) requires mandatory reporting of GHG emissions from sources that emit 25,000 metric tons or more of carbon dioxide equivalent (CO₂ EQ) per year in the United States. Categories of use which are generally associated with this level of reporting include power plants, petroleum and natural gas systems, refineries and other heavy manufacturing processes. On Lānaʻi, there are no facilities operating at or above the 25,000 metric ton level (U.S. EPA, 2019).

b. **Potential Impacts and Mitigation Measures**

The proposed project will include 127 acres for renewable energy projects, including photovoltaic equipment with battery energy storage. This action is in line with Pūlama Lānaʻi's goal to reduce its dependence on fossil fuels and GHG emitting infrastructure. Furthermore, future plans for the relocation of an existing concrete recycling and rock crushing operation,

and existing asphalt plant will not generate new sources of GHG emissions on the island.

In the context of the GHG Reporting Program (25,000 metric tons of CO₂ EQ), the relative effects GHG emissions (CO₂ EQ) during construction from earthmoving equipment and transportation of materials to and from the project site, will be short term and are not considered significant. Based on the foregoing, the proposed action is not anticipated to create significant direct and indirect foreseeable GHG emissions. This action does not fall within the threshold of mandatory GHG reporting.

12. **Noise**

a. **Existing Conditions**

The existing noise environment in and around the project study area is dominated by noise from airport-related activities, including roadway use and aircraft taxiing, taking off, and landing at the airport. Operations at the bordering Miki Basin Industrial Condominium and MECO power plant also contribute noise to the surrounding area. The nearest noise-sensitive areas to the project study area are located in Lānaʻi City, approximately two (2) miles to the northeast of the airport. No noise-sensitive areas are present within the project study area, and no incompatible land uses are present within the project study area.

b. **Potential Impacts and Mitigation Measures**

Ambient noise conditions may be temporarily affected by construction activities. Heavy construction machinery, such as backhoes, dump trucks, front-end loaders, paving equipment, and material-transport vehicles are anticipated to be the dominant noise-generating sources during the construction period of the proposed improvements. Sound attenuating construction equipment will be used where practicable and necessary, to mitigate noise impacts caused by construction. Night-time construction activity is not anticipated for the proposed project.

Although the proposed Miki Basin Industrial Park will create additional noise from vehicular use and repair work, this will pale in comparison to the sound of aircraft engines and will only marginally affect the existing environment. The distance between the proposed Miki Basin Industrial Park and existing noise sensitive areas also mitigates potential impacts.

Future individual users will also be responsible for complying with all applicable DOH rules and regulations relating to noise impacts. Any activity

that exceeds the State noise levels established by Chapter 11-46, Hawai'i Administrative Rules (HAR) "Community Noise Control" will seek a Noise Permit.

The Applicant will work to minimize noise emissions at the concrete recycling and rock crushing operation, including the use of all combustion powered equipment and vehicles. Any equipment found to be in poor condition will be repaired or replaced, and mufflers shall be used in accordance with federal and state laws and regulations. Furthermore, the relocation site was selected, in part, due to its close proximity to similar industrial uses, as well as its distance from noise-sensitive areas.

13. Hazardous Materials

a. Existing Conditions

TRC Environmental Corporation (TRC) prepared a Phase I Environmental Site Assessment (ESA) of the approximately 200-acre proposed project site. See **Appendix "E"**. The Phase I ESA notes that the site is believed to always have been undeveloped and utilized for agricultural purposes associated with pineapple cultivation.

No transformers were observed on the site. Utility owned pole-mounted transformers are located adjacent to the property area. It is unknown if the transformers may contain polychlorinated biphenyls (PCBs).

Based on information obtained from the site reconnaissance and available information, no underground storage tanks (USTs) or above ground storage tanks (ASTs) are located on the site.

Freedom of Information Act (FOIA) record reviews were completed by TRC of Hawai'i DOH's available records. DOH records did not indicate any concerns associated with the site.

The Phase I ESA has revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the site. RECs are defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The assessment has revealed no evidence of Historical Recognized Environmental Conditions (HRECs) in connection with the site.

b. Potential Impacts and Mitigation Measures

The Phase I ESA did not identify RECs, HRECs, or de minimis conditions which require mitigation. From a long-term perspective, it is noted that operations of future industrial activities are regulated by applicable federal and state law and industry standards.

At the concrete recycling and rock crushing operation, the types of materials processed include different types of cement that are free of paint or other hazardous coatings or products. The size of any individual piece must be three (3) inches in diameter (across any dimension) or less. If there is rebar embedded in the concrete, it will be broken up onsite, and the rebar removed. The rebar will be shipped off-island for appropriate disposal in a landfill. The size of the rocks collected would be similar in dimension.

14. Scenic and Open Space Resources

a. Existing Conditions

The proposed project is located approximately four (4) miles southwest of Lānaʻi City and abuts the southeast end of Lānaʻi Airport. Additionally, the proposed project is not located near traditional access or walking trails between the coast or upland areas.

b. Potential Impacts and Mitigation Measures

The proposed Miki Basin Industrial Park will have complementary uses to the neighboring facilities and no significant adverse impacts to open space or scenic resources are anticipated as a result of the project. The project is also not within or a part of a scenic corridor. As such, the proposed project will not adversely affect scenic views.

15. Beach and Mountain Access

a. Existing Conditions

The project is located approximately six (6) miles from the nearest beach and approximately ten (10) miles from the peak of Lānaʻihale, the highest point on the island.

b. Potential Impacts and Mitigation Measures

There are no traditional access trails identified in close proximity to the proposed project area. Accordingly, there are no anticipated adverse impacts to beach and mountain access from the proposed project.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population and Demography

a. Existing Conditions

Maui County's population in 2019 is estimated at approximately 167,400 according to the U.S. Census Bureau, an increase of approximately 8.0 percent since 2010, when the population stood at 154,924. The population on Lāna'i has fluctuated over the decade. In 2010, the island's population was 3,135 residents. Throughout most of the decade, the U.S. Census Bureau's five-year population estimate for Lāna'i ranged from approximately 3,100 residents to 3,500 residents.² However, in 2018 and 2019, the five-year population estimate dipped below 3,000 residents; in 2019, the U.S. Census Bureau's five-year population estimate was 2,730 residents (U.S. Census Bureau, 2019).

The Lāna'i Community Plan, which was updated and approved by the Maui County Council in 2016, notes that the island's population was forecast to be 4,020 by 2030. It was noted that increased economic activity and development plans on the island may result in population growing beyond the original forecast to up to 6,000 residents (County of Maui, Department of Planning, 2016).

b. Potential Impacts and Mitigation Measures

The proposed project is not a direct population generator and, thus, not anticipated to have a significant adverse impact on population or demographic trends on Lāna'i. Building the proposed Miki Basin Industrial Park will allow existing industrial facilities currently scattered in business and residential areas in Lāna'i City to relocate to more appropriate locations having the infrastructure and buffers necessary for industrial uses.

2. Economy

a. Existing Conditions

Hawai'i's economy through 2019 was strong, with record-setting visitor arrivals and low unemployment. However, the COVID-19 pandemic has

² Five-year population estimates are reported by the U.S. Census Bureau through its American Community Survey, which is an ongoing survey that provides data every year. The five-year estimates are "period" estimates that represent data collected over a five-year period of time.

had far reaching impacts on the economy on Lānaʻi, in Hawaiʻi, and across the nation and world. Stay-at-home regulations and travel quarantines aimed to curb the spread of COVID-19 virus in Hawaiʻi caused many businesses to shut down or drastically reduce operations. Unemployment in Lānaʻi and the State reached record levels in 2020 but has improved in 2021. In November 2020, unemployment in Lānaʻi stood at 29.3 percent. In July 2021, unemployment in Lānaʻi stood at 3.8 percent (Department of Labor and Industrial Relations, 2021).

Since the 1990s, the two (2) resorts on Lānaʻi have been the primary driving forces for the economy. Four Seasons Resort Lānaʻi and Sensei Lānaʻi, a Four Seasons Resort, feature 213 and 96 luxury rooms and suites, respectively. In addition, both resorts include single-family homes and multi-family homes for retirees, part-time residents, visitors and managers. The purchase of goods and services by visitors, retirees, part-time residents, the hotel, and hotel employees generate most of the jobs on Lānaʻi. Sensei Farms was established in recent years and has been providing produce to the resorts, restaurants, and businesses on island. In 2020, it began exporting produce to every island in Hawaiʻi. This new enterprise provides diversity for the economy. See **Appendix “F”**.

According to data from the State Department of Labor and Industrial relations, there were 1,500 (annual average) non-agricultural jobs on Lānaʻi in 2020, compared to 1,600 (annual average) jobs in 2019. Jobs in the leisure and hospitality industry accounted for 600 (annual average) jobs (State Department of Labor and Industrial Relations, 2020).

b. Potential Impacts and Mitigation Measures

An Economic, Population and Fiscal Impacts Report was prepared for the project by Plasch Econ Pacific Inc. See **Appendix “F”**.

i. Development Period

Over the initial 10-year development period, total construction expenditures for the project are estimated at about \$78.8 million. This translates to an average of about \$7.9 million per year, though it is noted that in practice, construction expenditures will vary from year to year. Development activities will generate indirect sales associated with supplying goods and services to construction companies and to the families of construction workers. Construction expenditures, plus indirect sales related to construction, are expected to average about \$12.8 million per year based on State economic multipliers. During the development period, construction

employment is expected to average about 19 jobs per year with direct payroll of \$1.7 million per year. In addition to direct construction and related jobs, project development will support indirect jobs associated with supplying goods and services to construction companies and to families of construction workers.

During construction, the State will net approximately \$5.6 million in tax revenues, or about \$560,000 per year. Most of the revenues will be derived from general excise taxes and corporate and personal income taxes. The County derives negligible tax revenues from development activity. Pūlama Lānaʻi will provide or finance its fair share of infrastructure and facilities to support the project. As such, State and County expenditures to support the project are expected to be negligible.

ii. **Operational Period**

By 2030, new economic activities at the Miki Basin Industrial Park are expected to generate about \$17.1 million per year in revenues. Industrial activities will generate approximately 60 new jobs with total payroll estimated at \$2.8 million.

The project is estimated to generate additional property tax revenues to the County of Maui in the amount of about \$380,000 per year by 2030. Increased State tax revenues at operations is estimated at \$670,000 per year, including excise taxes and corporate and personal income taxes. Inasmuch as the project is expected to be developed in conjunction with forecasted population growth for Lānaʻi, neither the State nor the County are anticipated to be required to realize increased expenditures to support operations of the project. As such, the project would have a net positive fiscal impact for the State and County. Refer to **Appendix “F”**.

C. **PUBLIC SERVICES**

1. **Police and Fire Protection**

a. **Existing Conditions**

The project site is within the service area of the Maui Police Department’s District II Lānaʻi patrol district which services the island of Lānaʻi. The Lānaʻi Police Station is located at 855 Fraser Avenue in Lānaʻi City, which is approximately three (3) miles to the northeast of the project site. The district

includes two (2) motorized beats, each patrolled by one (1) officer. There are 11 full-time officers on Lānaʻi including one (1) Lieutenant and two (2) Sergeants and a School Resource Officer. They work out of an 8,000 square-foot facility that includes three (3) jail cells, a juvenile cell, and office space.

Fire prevention, suppression, and protection services for the island of Lānaʻi are provided by the County Department of Fire and Public Safety's Lānaʻi Fire Station. The Lānaʻi Station is located at 1345 Fraser Avenue in Lānaʻi City, which is approximately three (3) miles to the northeast of the project site. The station includes a total staffing of 18 personnel. Three (3) captains, six (6) Firefighter III, and nine (9) Firefighter I. Lānaʻi Station houses one (1) engine company and one (1) tanker. There are six (6) personnel on duty daily (County of Maui, Department of Fire and Public Safety, 2014-2015). Lānaʻi City is approximately four (4) miles from the project site.

b. Potential Impacts and Mitigation Measures

The proposed activity is not anticipated to adversely impact public services or facilities and utilities, and will not expand the service limits for public services and infrastructure.

2. Medical Services

a. Existing Conditions

On July 1, 2017, Maui Memorial Medical Center, Maui Memorial Medical Center Outpatient Clinic, Kula Hospital, Kula Clinic, and Lānaʻi Community Hospital became part of Maui Health System, which is affiliated with Kaiser Permanente. These facilities operate as vital community hospitals, open to everyone regardless of health coverage.

Lānaʻi Community Hospital is the only hospital on the island of Lānaʻi. It is the sister hospital to Kula Hospital and Maui Memorial Medical Center. It has limited 24-hour emergency care, acute care and diagnostic imaging. It also provides long-term care (including skilled and intermediate nursing care).

b. Potential Impacts and Mitigation Measures

The proposed project will not adversely affect medical services in the area. During project construction, detour routes will not be necessary. As such,

medical responders and services will continue to have access to the areas surrounding the project site.

3. Airports

a. Existing Conditions

The proposed project is located adjacent to and east of the Lānaʻi Airport. The airport has a single runway and primarily serves scheduled interisland and commuter/air taxi traffic. The airport complex includes a terminal, parking, rental car facilities, cargo, and airport support services. The portion of the airport property that is immediately adjacent to the project site consists of vacant land. The airport runway is located over 1,500 feet from the nearest property boundary.

b. Potential Impacts and Mitigation Measures

While the proposed project is adjacent to the Lānaʻi Airport, the area immediately adjacent to the project site consists of vacant land. The Miki Basin Industrial Park will comply with all applicable requirements and regulations regarding development near the airport, including requirements pertaining to the development of solar energy facilities.

4. Solid Waste

a. Existing Conditions

The Lānaʻi Landfill on Kaumālapaʻu Highway accepts municipal solid waste and construction debris dropped-off from commercial and residential customers. In addition, personal delivery to the landfill of municipal solid waste, green waste, and trash is available.

Pūlama Lānaʻi sponsors rural recycling collection events for hard to recycle items including: appliances, small scrap metal and vehicle batteries and tires. The County has recycling programs for computers/electronics and household batteries.

Pūlama Lānaʻi provides green waste recycling with subsequent compost available to residents. Hawaiʻi DOH, in conjunction with Maui Disposal, provides refundable glass and can recycling.

The County, through the Department of Environmental Management (DEM), provides residential application-based refuse pick up and disposal services on Lānaʻi.

b. Potential Impacts and Mitigation Measures

During the initial short-term construction phase of the project, the contractor will develop and implement a construction-generated waste disposal plan. Appropriate construction debris will be taken to the landfill.

A large proportion of the Miki Basin Industrial Park, 127 acres, is proposed for renewable energy uses such as photovoltaic plus battery energy storage, which would not be a generator of new solid waste. Appropriate decommissioning practices in compliance with federal, state, and local regulations will be implemented at the end of the useful life of the renewable energy project. Individual users at the Miki Basin Industrial Park will be responsible for disposing of solid waste, recyclables, and green waste consistent with State and County regulations and programs.

With respect to the concrete recycling and crushing operation, the operator will manage solid waste disposal consistent with the County programs on the island. Most of the materials and by-products would consist of rock, aggregate, and concrete cement that is planned to be recycled as much as possible to reduce the need for costly importation of building materials. Materials that are considered construction and demolition debris waste would be handled and disposed of in accordance with State and County regulations and laws. Inasmuch as the concrete crushing operation represents a relocation of an existing use, significant new solid waste generation is not anticipated.

Based on the foregoing, the proposed Miki Basin Industrial Park is not anticipated to generate a significant adverse impact related to solid waste disposal considerations.

5. Education

a. Existing Conditions

Lānaʻi High and Elementary School reported the enrollment of 565 students for the 2020-2021 school year (DOE, Official Enrollment County School Year 2020-2021). It is the largest of six (6) kindergarten through grade 12 public schools in the Department of Education (DOE) system. It is the only school that serves educational needs on the island of Lānaʻi.

b. Potential Impacts and Proposed Mitigation Measures

The proposed Miki Basin Industrial Park will allow existing industrial facilities currently scattered in business and residential areas in Lānaʻi City

to relocate to more appropriate locations having the infrastructure and buffers necessary for industrial uses. The project is not a population generator and, as such, adverse impacts on educational facilities are not anticipated.

6. Recreational Resources

a. Existing Conditions

The Maui County Department of Parks and Recreation and Lānaʻi public schools maintain a number of recreational resources on the island of Lānaʻi. County parks and facilities in Lānaʻi City include: the Lānaʻi Community Center, the Lānaʻi Gym and Tennis Courts, and the Lānaʻi Little League Field, Fraser Avenue Park and Kaumālapaʻu Highway/Fraser Avenue Park.

Pūlama Lānaʻi also owns and maintains a number of recreational facilities that are available for public use including Dole Park, Olopuā Woods Park, Waialua Park, Hulopoʻe Beach Park, and the Lānaʻi Recreation Center.

Other recreational facilities operated by Pūlama Lānaʻi include the 18-hole championship golf course at Mānele Resort and the 9-hole Cavendish Golf Course.

b. Potential Impacts and Mitigation Measures

The proposed action is not expected to generate a need for additional recreational facilities. There are no anticipated adverse impacts to existing recreational facilities and resources.

D. INFRASTRUCTURE

1. Roadways

a. Existing Conditions

A Traffic Impact Analysis Report (TIAR) was prepared by Austin, Tsutsumi, and Associates, Inc. on June 3, 2021, to evaluate the traffic impacts resulting from the proposed 200-acre Miki Basin Industrial Park. See **Appendix “G”**.

The following are brief descriptions of the existing roadways studied within the vicinity of the project:

- **Kaumālapa‘u Highway** - Kaumālapa‘u Highway is generally an east-west, two-way, two-lane state-owned roadway that runs perpendicular to Miki Road. This roadway begins to the west at the Fuel Depot and terminates to the east at its intersection with Lanai Avenue/Queens Street. The speed limit along Kaumālapa‘u Highway is 45 miles per hour (mph) near Miki Road.
- **Miki Road** - Miki Road is generally a north-south, two-way privately owned roadway that begins to the north at its intersection with Kaumālapa‘u Highway and extends approximately 2.95 miles to the south – primarily through undeveloped land. The roadway is only approximately 13 to 15 feet wide, and therefore requires vehicles to pull off to the unpaved shoulder when encountering approaching vehicles traveling in the opposite direction.

Due to the prolonged disruptions to both residential and visitor traffic in the Hawai‘i region as a result of the impacts of the COVID-19 pandemic, collecting new traffic count data at this time would be atypical. Previously collected data in conjunction with available traffic volume data from the Hawai‘i Department of Transportation (HDOT) were instead used to estimate the existing 2020 traffic volumes at the study intersections.

The TIAR included a Level Of Service (LOS) analysis for the various study intersections surrounding the project area. LOS is a qualitative measure used to describe the conditions of traffic flow at intersections, with values ranging from free-flow conditions at LOS A to congested conditions at LOS F. The Kaumālapa‘u Highway/Miki Road intersection currently operates with all movements at Level of Service (LOS) B or better during the AM and PM peak hours of traffic. No significant delays or queuing were previously observed during the 2018 data collection at the intersection during either peak hour of traffic.

b. Potential Impacts and Mitigation Measures

It is assumed that at least two (2) driveway access points to the project site will be provided along Miki Road. Project Driveway 1 provides access to the light and heavy industrial areas west of Miki Road and Project Driveway 2 provides access to the light industrial area east of Miki Road. Refer to **Appendix “G”**.

The project is anticipated to generate 161 trips during the weekday AM peak hour of traffic and 163 trips during the weekday PM peak hour of traffic by 2040.

Upon completion of the project, all intersection movements are forecast to operate at LOS B or better during the AM and PM peak hours of traffic. Miki Road is privately-owned; the levels of service for the proposed uses on such are acceptable and not significant.

The TIAR noted the following improvements are recommended when warranted:

- Widen Miki Road between its intersection with Kaumālapā'u Highway to the project driveway(s). Miki Road is currently estimated to be 13 feet wide, and should be widened to accommodate the design vehicle (lowboy with crane) and full side-by-side bidirectional travel with intersection geometries capable of accommodating turning movements.
- Provide an exclusive westbound left-turn deceleration lane.

2. Water

a. Existing Conditions

i. Water System

Akinaka & Associates, Ltd. prepared a Water Master Plan for Mānele Bay Water System (Public Water System 238 ("PWS 238")), which provides service to the project area. The study analyzes the existing water distribution system and capacity of PWS 238. In particular for this Draft EA, the study provides a recommendation for the new and incremental forecasted water demand for the Miki Basin Industrial Park as it relates to PWS 238. See **Appendix "H-1"**.

PWS 238 is owned, operated and maintained by the Lāna'i Water Company. PWS 238 is sourced by Well No. 2 (State Well No. 5-4953-001) and Well No. 4 (State Well No. 5-4952-002). PWS 238 provides water service to Mānele, Hulopo'e and the Pālāwai Irrigation Grid. Water from the wells is either stored in the existing 0.5 million gallon (MG) Hi'i Tank, 1.0 MG concrete Hi'i Reservoir, or fed directly into the distribution system depending on the demand. PWS 238 consists of 10-inch, 12-inch, and 16-inch transmission mains. PWS 238 is interconnected with the Lāna'i City Water System (Public Water System 237 ("PWS 237")). During emergencies, PWS 237 can be connected to PWS 238 by opening a valve.

The existing average daily water usage of PWS 238 is estimated at 433,000 gallons per day (GPD).

Existing water demand for the Concrete Batch Plant (CBP) is 3,500 GPD, which is currently provided by PWS 238. Existing water demand for the asphalt plant is 1,000 GPD, which is currently provided by PWS 237. The asphalt plant will have a new demand of 1,000 GPD on PWS 238, when it is relocated into the Miki Basin Industrial Park.

ii. **Water Availability**

There are two (2) aquifers on Lānaʻi, the Leeward Aquifer system and Windward Aquifer system, each with a sustainable yield of 3.0 million gallons per day (MGD). Together, the total sustainable yield for the island of Lānaʻi is 6.0 MGD.

Lānaʻi Water Company provides Periodic Water Reports (PWR) to the Maui County Department of Water Supply and State of Hawaiʻi Commission on Water Resource Management (“CWRM”). The PWR can be accessed each month from the Lānaʻi Water Company’s website.³ The PWR contains data sets of gallons of water pumped, water use on the island, water well levels, and water temperature and chlorides. CWRM publishes on their website a twelve (12) month moving average (“12MAV”) monthly pumpage chart relative to the island’s 6.0 MGD sustainable yield.⁴ In the context of the island’s sustainable yield of 6.0 MGD, the CWRM established a management guideline trigger of 4.3 MGD to initiate proceedings to designate Lānaʻi as a groundwater management area (County of Maui, Department of Water Supply, 2011). Lānaʻi Water Company has a data set containing water readings from 1926 through today. The current daily water demand on Lānaʻi, last updated on August 2021, is 1.517 MGD. The current daily water demand is significantly lower than the 4.3 MGD trigger set by the CWRM in 1990 and the 6.0 MGD sustainable yield for the island of Lānaʻi. **Table 3** below is reproduced from the CWRM website for Lānaʻi.

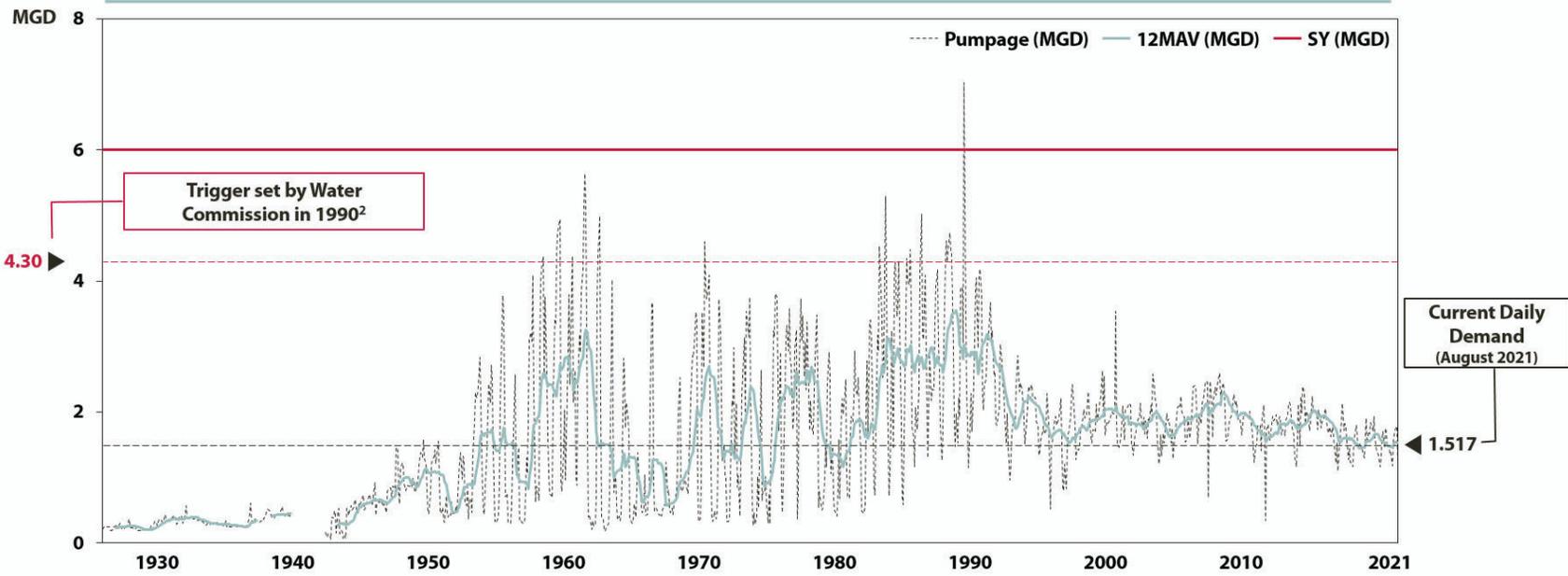
³ See hyperlink <https://lanaiwatercompany.com/water-reports/>

⁴ See hyperlink https://files.hawaii.gov/dlnr/cwrmm/monitoringdata/pump_lanai.pdf

Table 3. Lana'i Monthly Pumpage Chart

LĀNA‘I MONTHLY PUMPAGE CHART¹

Lāna‘i Monthly Pumpage Chart¹



1. Downloaded from http://files.hawaii.gov/dlnr/cwrm/monitoringdata/pump_lanai.pdf, Adopted from LPC Workshop Item D1 on 16SEPT21, slide 12 of 15, presented by CWRM.
 2. March 29, 1990 CWRM Non-Designation Decisions Condition #5d. See also Ibid slide 3 of 15.

b. Potential Impacts and Mitigation Measures

i. Water System

The near-term Miki Basin Industrial Park’s anticipated uses include the relocation of the CBP and the asphalt plant. These near-term uses are expected to have an incremental demand of 2,625 GPD for the CBP and a new demand of 1,000 GPD for the asphalt plant on PWS 238. In the long term, the new Industrial Uses are expected to have a new demand of 156,000 GPD on PWS 238.

According to the Water Master Plan for PWS 238, the full build out of the Miki Basin Industrial Park’s new or incremental estimated water demand on PWS 238 is 159,625 GPD. The estimated water demand on PWS 238 for the full buildout of the Miki Basin Industrial Park is 163,125 GPD, which includes the existing and new or incremental estimated water demand. **Table 4** below (Figure A in **Appendix “H-1”**) provides a summary of the estimated water demand for the Miki Basin Industrial Park.

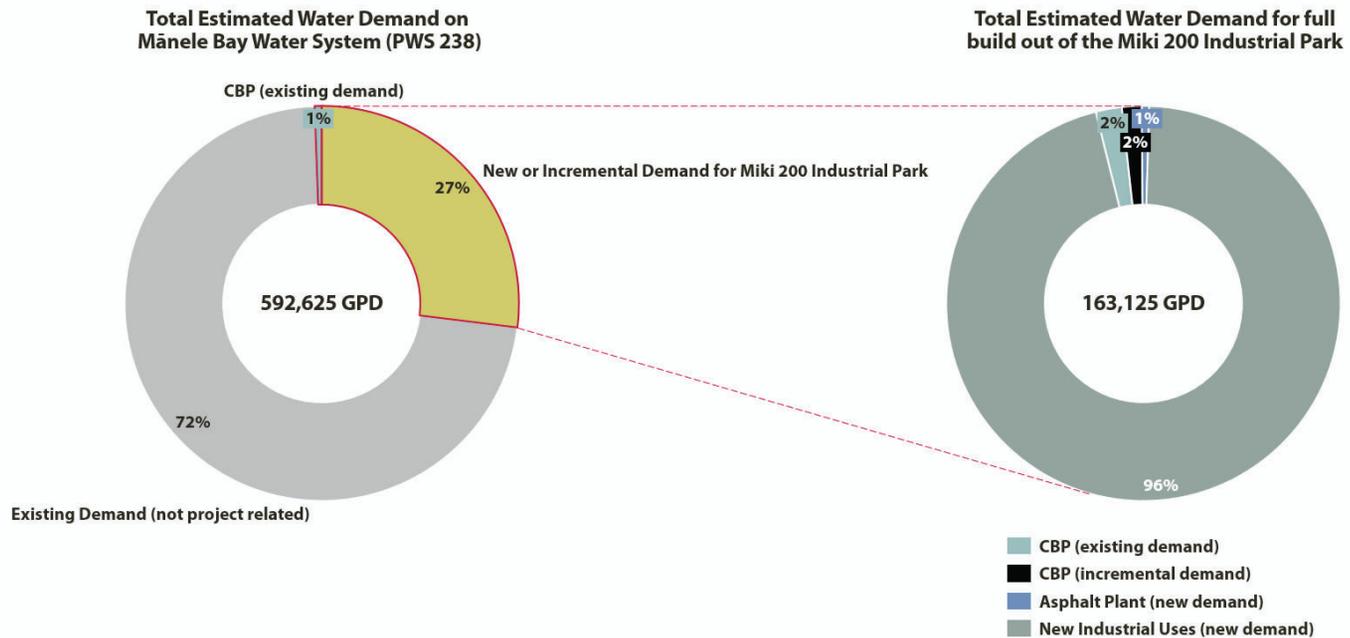
Table 4. Summary of Estimated Water Demand at Miki Basin Industrial Park

Description	Acres	Existing Water Demand on Mānele Bay Water System (PWS 238) (GPD)	New or Incremental Water Demand on Mānele Bay Water System (PWS 238) (GPD)	Full Build Out of Industrial Park Water Demand on Mānele Bay Water System (PWS 238) (GPD)
CBP	14.5	3,500	2,625	6,125
Asphalt Plant	12.5	--	1,000	1,000
Renewable Energy Projects	127.0	--	--	--
New Industrial Uses	26.0	--	156,000	156,000
Infrastructure	20.0	--	--	--
TOTAL	200.0	3,500	159,625	163,125

The projected average day demand for PWS 238, including full buildout of the Miki Basin Industrial Park and existing demands (not Miki Basin Industrial Park related), is 592,625 GPD. **Table 5**, pie chart (Figure B in **Appendix “H-1”**), below provides a visual summary of the percentages of existing, new or incremental water demands on PWS 238 for the Miki Basin Industrial Park.

Table 5. Average Day Demand for PWS 238 with Full Buildout of Miki Basin Industrial Park

AT FULL BUILD OUT, THE PROJECT IS ONLY 28% OF THE TOTAL ESTIMATED DEMAND ON PWS 238



~5% of the incremental or new demand for the Miki 200 project will come online within the first five years. The remaining ~96% is not contemplated until later in the development timeline.

The Water Master Plan notes that PWS 238 does not have adequate well-pump capacity (source) for the full buildout of the Miki Basin Industrial Park, however, there is enough storage to support the full buildout with the existing tank and reservoir. Refer to **Appendix “H-1”**.

Although the transmission mains do meet Water Systems Standards (WSS) for fire flow protection, the existing water system does not meet the WSS in other aspects. There is an existing pressure reducing valve (PRV) that has an outflow limit that could be lowered. If a booster pump could be added to the system, the PRV can be set lower, and the booster could pump the water so that there can be enough pressure to distribute water uphill.

The Water Master Plan, included in **Appendix “H-1”**, includes a detailed list of improvements that will be required to support full buildout of the industrial park. These improvements include modifying or replacing the existing PRV, drilling a new source or multiple sources to obtain an additional minimum pump capacity of 426 gallons per minute (GPM), and evaluating the condition of sections of the Pālāwai Irrigation Grid to determine the need for pipe repair, replacement or possible abandonment.

In response to the need for new water source, a “New Well Supply Alternatives” report was completed by Tom Nance Water Resource Engineering. The report considered alternatives, including available supply in the Leeward Aquifer System, well installed pumping capacity versus its long-term sustainable supply, and current sources of supply for PWS 238. See **Appendix “H-2”**.

Three (3) alternative well sites were evaluated, with the recommended site located 2,000 feet northwest of existing Well No. 2 at the top of a former pineapple field and accessed by old plantation roads. This proposed well site is far enough away from existing wells so as not to impact their sustainable supplies. A well at this site would encounter high-level, drinking water quality groundwater and could meet or exceed the necessary 426 GPM capacity to ensure adequate supply for the full build out of the Miki Basin Industrial Park. Refer to **Appendix “H-2”**.

Pūlama Lāna’i will conform with the requirements of the Hawaii Safe Drinking Water Branch and County of Maui Water System Standards in developing a safe drinking water system, and any

other associated regulatory entity as it relates to installation, inspection and maintenance of water systems on the site. Additionally, the design and operations of facilities will include measures which will promote the conservation of water resources.

ii. **Water Availability**

The New Well Supply Alternatives report prepared by Tom Nance Water Resource Engineering concluded that a new well to supply the Miki Basin Industrial Park project can be accommodated within the Leeward Aquifer System's 3.0 MGD sustainable yield. Refer to **Appendix "H-2"**.

The water demand for the proposed project is also analyzed in the context of the 6.0 MGD sustainable yield for the island as a whole. **Table 6** below was created to provide a perspective of the incremental demand for the full build out of the Miki Basin Industrial Park's additional water demand on the island as well as other proposed or approved projects on the island. On the far left, the current water demand on Lāna'i is represented as a light aqua bar (1.517 MGD), the next additional incremental demand in the red bar is the full build out for the Miki Basin Industrial Park (0.159 MGD), followed by the gray bar for other proposed or approved projects (0.260 MGD). The total forecasted water demand for Lāna'i (summation of the values) is 1.936 MGD, which is 55 percent less than the 4.3 MGD trigger set by CWRM and 68 percent less than the sustainable yield of 6 MGD for Lāna'i.

Based on the foregoing, significant adverse impacts to water resources are not anticipated as a result of the proposed project.

3. **Wastewater**

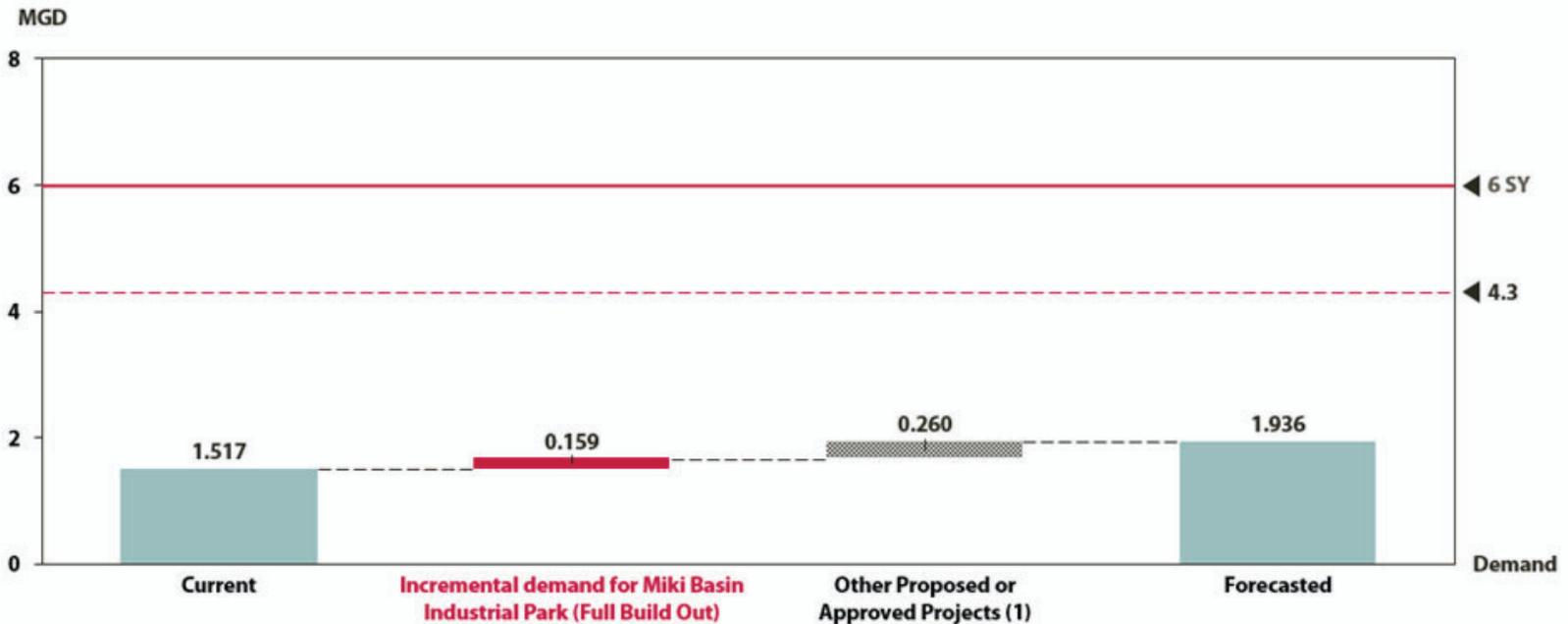
a. **Existing Conditions**

Akinaka & Associates, Ltd. prepared a Wastewater Master Plan to identify and review the condition of the existing systems and analyze the existing systems for projected wastewater estimates for the project. See **Appendix "I"**.

There is currently no existing County or privately owned or operated wastewater treatment system in the vicinity of the proposed 200-acre Miki Basin Industrial Park. Wastewater is currently treated via onsite individual wastewater systems.

Table 6. Forecasted Cumulative Water Demand for Island of Lānaʻi

THE PROPOSED WATER DEMAND FOR THE MIKI BASIN INDUSTRIAL PARK WOULD NOT EXCEED THE SUSTAINABLE YIELD OR TRIGGER CWRM ACTION



1. Other Proposed or Approved Projects include projects that have been submitted or approved to/by a State or County entity but not yet constructed. Proposed or approved projects and their permit numbers are included here: DHHL water reservation, Kōʻele Project District Amendment (CPA 2021/0001, CIZ 2021/0001, PH1 2021/001, EA 2021/0002) less existing uses because that demand is part of the "Current" demand, and Hōkiūao 201H Resolution No. 21-136, adjusted to 150 homes.

b. Potential Impacts and Mitigation Measures

According to the Akinaka & Associates, Ltd. Wastewater Master Plan for the proposed 200-acre Miki Basin Industrial Park, the construction of onsite Individual Wastewater Systems (IWS), decentralized Wastewater Treatment Plants (WWTP) and collection systems will be required to support development activity.

Each development within the industrial park will be required to provide its own wastewater treatment system and associated wastewater collection system. The type of treatment system used will be determined by the size and type of development. Sizing of each system will be determined during the design phase of each development.

Since specific development plans for the industrial park are not yet available, proposed wastewater flows for buildout of the industrial park are based on the proposed land use and an estimated developable area for each parcel. The proposed design average wastewater flow for full buildout of the industrial park is 80,179 GPD, with a design peak flow of 333,688 GPD.

Onsite IWS systems and decentralized WWTPs are regulated by the Department of Health (DOH). IWS systems can be used as a temporary onsite means of wastewater disposal in lieu of a WWTP under certain conditions. Where developments do not meet the requirements for an IWS, decentralized WWTPs are recommended. WWTPs can be sized to accommodate flows from multiple properties located in the same general area. Depending on the development timeline, construction of the WWTP can be phased such that the system can be adapted and expanded to accommodate additional flows at a later date.

It is anticipated that the concrete facility and asphalt plant may be the first sites developed, and will require the installation of an IWS septic system. The wastewater flows generated from these facilities are minimal and could be managed with an IWS even after development of a nearby decentralized WWTP. The light industrial area west of Miki Road would produce the majority of the projected design wastewater flow. A WWTP developed at the lowest point in the project site on the southwestern edge of the light industrial area west of Miki Road could collect the wastewater from this area without the need for pump stations and force mains. Refer to **Appendix "I"**.

The wastewater system for the Miki Basin Industrial Park will be designed in conformance with the requirements of the DOH and the County of Maui

to ensure proper handling and treatment of wastewater generated by the project.

4. Drainage

a. Existing Conditions

R.M. Towill Corporation prepared a Drainage Report on July 9, 2021, to determine that the offsite and onsite drainage system requirements for the proposed Miki Basin Industrial Park meet the County of Maui Storm Drainage Standards. See **Appendix “J”**.

Offsite runoff generated from the area north of Miki Road sheet flows and is intercepted by an unlined ditch along Miki Road. Once in the unlined ditch, the runoff flows towards the southeast direction to a low point in Miki Road, near the existing MECO facility.

The existing onsite terrain is covered with vegetation and slopes at about five (5) percent from Miki Road toward the southeast. There is no existing storm drain system within the project area.

Offsite runoff, including runoff generated from the MECO facility, is diverted around the Miki Basin Industrial Condominium site and is discharged into an existing drainageway. Runoff generated within the existing Miki Basin Industrial Condominium site is collected by an onsite drainage system and is discharged offsite.

b. Potential Impacts and Mitigation Measures

The proposed development will increase the amount of impervious area within the project. Offsite runoff will be intercepted before entering the project site by proposed drainage ditches. The drainage ditches will divert runoff around the perimeter of the project site to an offsite discharge point downstream. Onsite runoff will be collected by a proposed underground storm drain system consisting of pipes and inlets.

Existing drainage patterns will be maintained by discharging intercepted offsite runoff to its original flow path. Offsite runoff will be collected by interceptor ditches located on the perimeter of the site that discharge to existing drainageway and ultimately to Miki Basin.

The proposed concrete rectangular drainage ditches vary in size from 8 feet by 8 feet to 2 feet by 3 feet. The ditches are sized to accommodate the

peak runoff flow from the 100-year, 24-hour storm and 10-year, 1-hour storm where necessary and provide a minimum 2-foot freeboard.

The development of the proposed industrial parcels will increase the runoff onsite by 141.36 cfs based on a 100-year, 24-hour storm. The additional flow generated within the proposed parcels can be accommodated by the existing Miki Basin and Pālāwai Basin. The additional runoff volume is negligible compared to the available basin capacity. Stormwater treatment will not be provided for this project since the runoff flows into an existing offsite sump with no outlet to the ocean. Applicable law will be followed to minimize soil movement, erosion and compaction during all project actions.

Development of the project will include the implementation of site-specific BMPs during the construction to provide erosion control and minimize impacts to downstream properties.

Stormwater runoff from stockpiles will be significantly reduced, if needed, by using sheet plastic or other impervious material to prevent the comingling of stormwater with sediments in the aggregate. With or without this control, the management of stormwater runoff will also be directed or diverted from discharging into waters of the state by use of detention or retention basins, or other drainage control device(s).

The project will also include post-construction BMPs, which will improve the quality of stormwater runoff from the proposed development. The drainage design criteria will be to minimize any alterations to the natural pattern of the existing onsite surface runoff. The proposed drainage plan will meet the requirements of Chapter 4, *“Rules for the Design of Storm Drainage Facilities in the County of Maui”* and Chapter 111, *“Rules for the Design of Storm Water Treatment Best Management Practices”*.

Based on the foregoing,, the proposed 200-acre industrial development will not have an adverse impact on any existing downstream properties.

5. Electricity, Telephone Systems, and Cable Television Services

a. Existing Conditions

The MECO powerplant is adjacent to the proposed project and provides energy to Lāna’i Airport operations. The electrical service lines to the Airport are underground, running from Kaumālapa’u Highway along the Airport access road to the Airport.

b. Potential Impacts and Mitigation Measures

The Miki Basin Industrial Park will include 127 acres for renewable energy projects, including photovoltaic equipment with battery energy storage.

The project is not anticipated to have an adverse impact on existing electrical, telephone, or cable television systems, nor is it expected to extend existing service area limits. Early project coordination will be carried out with the service providers to ensure services can be delivered to the project site in a timely basis.

E. CUMULATIVE AND SECONDARY IMPACTS

Cumulative impacts are defined by Title 11, Chapter 200.1, Hawai'i Administrative Rules (HAR), Environmental Impact Statement Rules as:

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

A "secondary impact" or "indirect effect" is defined by Title 11, Chapter 200.1, HAR as

...effects which are caused by the action and later in time or farther removed in distance, but is still reasonably foreseeable.

The context for analyzing secondary and cumulative impacts is defined by the time horizon within which "reasonably foreseeable" conditions may occur. From a local planning standpoint, the future context for development is established by the Maui County General Plan (General Plan) and the Lāna'i Community Plan. The General Plan defines parameters for growth. The document plans for the horizon year 2030 and "reasonably foreseeable" conditions may be considered within this future context.

Whereas the Countywide Policy Plan covers planning goals and objectives at the broadest levels, the regional Community Plans consider specific regional needs and opportunities. The Lāna'i Community Plan (LCP) identifies fostering a robust and diversified economy as a critical component to establishing a sustainable and resilient future for Lāna`i. The LCP explains:

This requires diversifying the tourism industry, supporting agriculture, encouraging new industries, expanding education and support services for small businesses, and providing necessary infrastructure, land, and affordable sea and air transportation options. Lowering energy costs by reducing dependence on fossil fuels and increasing renewable energy is

also key to providing stronger economic opportunities and becoming more sustainable.

This will be achieved by increasing the generation and use of renewable energy sources, promoting the use of electric vehicles, and exploring options for biofuels, biodiesel, and waste-to-energy technology. Water resources will be used in a sustainable and economic manner by recycling one hundred percent of wastewater for irrigation and exploring options for reuse of household graywater for lawn and garden irrigation. (LCP, p. 2 12)

The Miki Basin Industrial Park is anticipated to be developed over a period of 20 years, depending on future economic and population growth, and market conditions. It is expected that there will be a need for industrial zoned lands on the island of Lānaʻi, considering there is none available presently. In addition to providing land for renewable energy uses and relocation of existing facilities, the project area will provide light and heavy industrial space as well as warehouse and baseyard space for existing and new businesses on the island. Possible new future industrial uses include a slaughterhouse, warehouse space for cold storage, laboratory/testing facilities, niche product development, automotive services, multi-media facility, animal hospital, and other industrial related uses allowed under “M-1, Light Industrial” and “M-2, Heavy Industrial” zoning. These businesses will generate sales in the local economy and support employment.

The site is well-suited for industrial development. As previously mentioned, the project area is adjacent to existing industrial uses including the Lānaʻi Airport, the Miki Basin Industrial Condominium, and MECO generating facility.

At 3.2 miles southwest of Lānaʻi City, it is far enough removed from the island’s main business center and residential area as to minimize those impacts common to industrial areas, such as noise, odors, and heavy vehicles. Yet, the project area is close enough to be conveniently accessible to businesses, residents, and the workforce.

Development of the 200-acre industrial park will allow existing industrial facilities currently scattered in business and residential areas in Lānaʻi City to relocate to more appropriate locations having the infrastructure and buffers necessary for industrial uses; and provide opportunities for future industrial development on Lānaʻi, which will add to the diversification of Lānaʻi’s economy and thereby contribute to the island’s resiliency and sustainability.

The proposed Miki Basin Industrial Park is not anticipated to result in significant impacts that will not be mitigated. It is not part of a larger action and will not result in significant cumulative impacts. The project is not a population generator and will not result in significant adverse secondary impacts.

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



III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS

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. These land use districts are designated "Urban", "Rural", "Agricultural", and "Conservation". The project site is located within the "Agricultural" district. See **Figure 8**. The Applicant will seek a District Boundary Amendment from the State of Hawai'i Land Use Commission (SLUC) to designate the subject property "Urban". Pursuant to Chapter 205, Hawai'i Revised Statutes (HRS), the "Urban" districts shall include uses or activities provided by ordinances or regulations of the County in which the "Urban" district is located. Section E below, outlines the County of Maui's zoning regulations that are applicable to the proposed project. The proposed project is consistent with the "Urban" district designation.

Land Use Commission Rules, Chapter 15-15, HAR

Reclassification of the subject property must meet the following standards of the Urban District as set forth in the Land Use Commission Rules, Chapter 15-15-18, HAR:

1. *It shall include lands characterized by "city-like" concentration of people, structure, streets, urban level of services and other related land uses.*

Response: The subject action involves a reclassification of district boundaries to enable implementation of the master-planned Miki Basin Industrial Park, which is a 200-acre light and heavy industrial development located in an area called for in the Lāna'i Community Plan. The project site is designated "Light Industrial" and "Heavy Industrial" by the Lāna'i Community Plan and is located in the vicinity of similar land uses. The Applicant will develop the major common infrastructure, such as roads, electric and water utility lines. The lands and surrounding areas are characterized as having "city-like" structures, streets, urban level of services, and other related land uses.

2. *It shall take into consideration the following specific factors*
 - A. *Proximity to centers of trading and employment except where the development would generate new centers of trading and employment.*

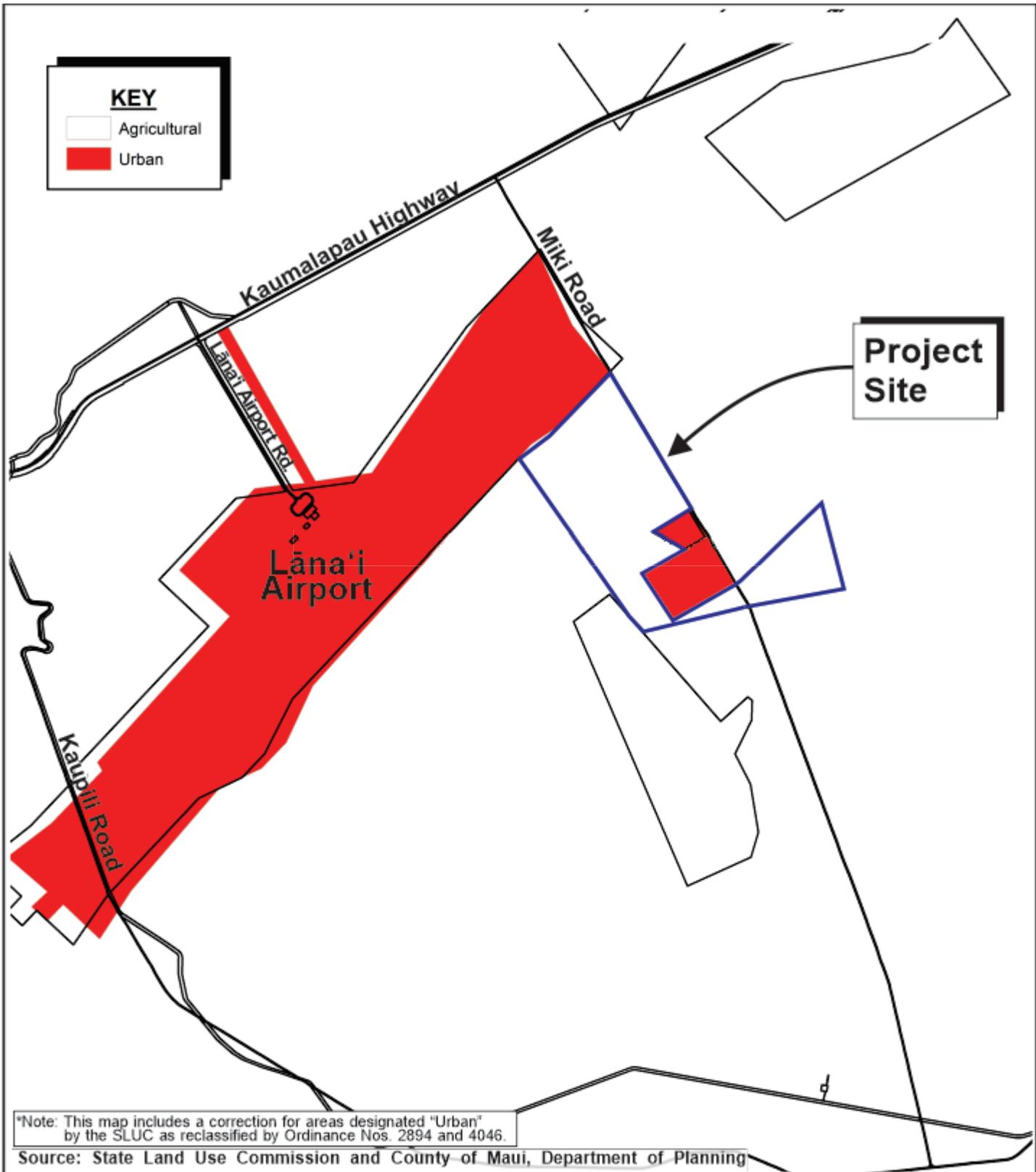


Figure 8

Miki Basin Industrial Park
State Land Use Designation Map



Prepared for: Lanai Resorts LLC, a Hawaii Limited Liability Company doing business as Pūlama Lāna'i



Fulama Lanai/MKBasinExp 1769/Applications/Figures/SLUD

B. *Availability of basic services such as schools, parks, wastewater systems, solid waste disposal, drainage, water, transportation systems, public utilities, and police and fire protection.*

C. *Sufficient reserve areas for foreseeable urban growth*

Response: (A.) The Miki Basin Industrial Park is located on land adjoining the Lānaʻi Airport, the Maui Electric Company (MECO) 5-acre power plant and the existing 20-acre Miki Basin Industrial Condominium. The proposed project will complement the existing industrial uses in the vicinity, as envisioned by the Lānaʻi Community Plan.

(B.) The implementation of the project will include provisions for services, such as wastewater systems, water systems, and drainage improvements. It is within the service area of local police, hospitals, and fire prevention services and would not extend their service boundaries. It is also accessible to private waste disposal services, and adjacent to major transportation routes.

(C.) The Lānaʻi Community Plan identified the Miki Basin area as a logical area for the expansion of industrial uses due to its proximity to similar existing facilities.

3. *It shall include lands with satisfactory topography, drainage, and reasonably free from danger of any flood, tsunami, unstable soil condition, and other adverse environmental effects.*

Response: The subject property has a significantly high elevation at well over 1,000 feet above sea level. The existing onsite terrain is covered with vegetation and slopes at about five (5) percent from Miki Road toward the southeast. The site is free from danger of any flood, tsunami, unstable soil conditions and other adverse environmental effects. The subject property is located in Flood Zone X (unshaded) on the Flood Insurance Rate Map for the area, and not within the tsunami evacuation area. Additional runoff generated within the proposed industrial parcels can be accommodated by the existing Miki Basin and Pālāwai Basin. Development of the project will include the implementation of site-specific, best management practices (BMPs) during the construction to provide erosion control and minimize impacts to downstream properties.

4. *Land contiguous with existing urban areas shall be given more consideration than non-contiguous land, and particularly when indicated for future urban use on state or county general plans.*

Response: The Miki Basin Industrial Park is located on land adjoining the Lānaʻi Airport, the MECO 5-acre power plant and the existing 20-acre Miki Basin Industrial Condominium, which are all designated “Urban”. The project is a 200-acre light and heavy industrial development located in an area called for in the Lānaʻi Community Plan.

5. *It shall include lands in appropriate locations for new urban concentrations and shall give consideration to areas of urban growth as shown on the state and county general plans.*

Response: The project site is located in an area designated for light industrial and heavy industrial uses in the Lānaʻi Community Plan. It also is located on land adjoining the Lānaʻi Airport, MECO power plant, and the 20-acre Miki Basin Industrial Condominium which are designated “Urban” by the State Land Use Commission.

6. *It may include lands which do not conform to the standards in paragraph (1) to (5):*

A. *When surrounded by or adjacent to existing urban development; and*

B. *Only when those lands represent a minor portion of this district*

Response: The Miki Basin Industrial Park includes lands which conform to the standards in paragraphs (1) to (5). The 200-acre project site is adjacent to existing urban development and represents a small portion of the approximately 18,000 acres that were previously used for growing pineapple, and approximately 45,000 acres of State Agricultural Land on Lānaʻi.

7. *It shall not include lands, the urbanization of which will not contribute toward scattered spot urban development, necessitating unreasonable investment in public infrastructure or support services.*

Response: The Miki Basin Industrial Park is comprehensively designed and intended to meet future industrial, commercial, and public/quasi-public land use requirements, integrated with the existing urban services in Lānaʻi. Due to the concentration of industrial type uses in the Miki Basin area, namely the adjacent Lānaʻi Airport, the MECO 5-acre power plant, and the existing 20-acre Miki Basin Industrial Condominium, the urbanization of the project area would

not contribute towards scattered development, but would consolidate a range of land uses for similar purposes.

8. *It may include lands with a general slope of twenty percent or more if the commission finds that those lands are desirable and suitable for urban purposes and that the design and construction controls, as adopted by any federal, state or county agency, are adequate to protect the public health, welfare and safety, and the public's interest in the aesthetic quality of the landscape.*

Response: The project area is relatively flat, with slopes at about five (5) percent from Miki Road toward the southeast.

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. The Plan consists of three (3) parts. Part I includes the Overall Theme, Goals, Objectives, and Policies; Part II includes Planning, Coordination, and Implementation; and Part III establishes Priority Guidelines. Part II of the State Plan covers its administrative structure and implementation process.

The overall theme of the Hawai'i State Plan is governed by the following general principles.

1. Individual and family self-sufficiency
2. Social and economic mobility
3. Community or social well-being

In consonance with the foregoing principles, the Hawai'i State Plan identifies three (3) clarifying goals:

1. A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai'i's present and future generations.
2. A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.
3. Physical, social, and economic well-being, for individuals and families in Hawai'i, that nourishes a sense of community responsibility, of caring, and of participation in community life.

This section of the environmental assessment examines the applicability of the proposed action as it relates to the objectives, policies, and priority guidelines of the Hawai'i State Plan, as set forth in HRS Sections 226-5 through 226-27.

The table below summarizes the relationship between the proposed action and the goals of the Hawai'i State Plan. The relationship between the action and the goals are categorized into the following groups. More detailed analysis and discussion, including the methodology used, is presented in **Appendix "K-1"**.

1. **Directly applicable**: the action and its potential effects directly advances or promotes the objective, policy or priority guideline.
2. **Indirectly applicable**: the action and its potential effects indirectly supports or advances the objective, policy or priority guideline.
3. **Not applicable**: the action and its potential effects have no direct or indirect relationship to the objectives and policies of the Hawai'i State Plan.

In general, a proposed action's applicability to the objectives, policies and priority guidelines of the Hawai'i State Plan is judged on the basis of the action's direct or indirect relationship to the respective objectives, policies and priority directions. It is recognized that the categorization of "applicability" is subject to interpretation and should be appropriately considered in the context of local and regional conditions. The analysis presented in **Table 7** and summarized below focuses on key elements of the proposed action's relationship to the Hawai'i State Plan. Detailed discussion on the applicability of the proposed action to each goal and related objectives, policies, and implementing actions of the Hawai'i State Plan is provided in **Appendix "K-1"**.

Table 7. Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies (Chapters 226-1 to 226-27)

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
HRS 226-1: Findings and Purpose			
HRS 226-2: Definitions			
HRS 226-3: Overall Theme			
HRS 226-4: State Goals. In order to guarantee, for the present and future generations, those elements of choice and mobility that insure that individuals and groups may approach their desired levels of self-reliance and self determination, it shall be the goal of the State to achieve: (1) A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawaii's present and future generations. (2) A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people. (3) Physical, social, and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring, and of participation in community life.			

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Chapter 226-5 Objective and Policies for Population			
Objective: It shall be the objective in planning for the State's population to guide population growth to be consistent with the achievement of physical, economic and social objectives contained in this chapter.	✓		
Chapter 226-6 Objectives and policies for the economy -- in general			
Objectives: Planning for the State's economy in general shall be directed toward achievement of the following objectives:			
(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii's people, while at the same time stimulating the development and expansion of economic activities capitalizing on defense, dual-use, and science and technology assets, particularly on the neighbor islands where employment opportunities may be limited.		✓	
(2) A steadily growing and diversified economic base that is not overly dependent on a few industries, and includes the development and expansion of industries on the neighbor islands.		✓	
Chapter 226-7 Objectives and policies for the economy -- agriculture.			
Objectives: Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:			
(1) Viability of Hawaii's sugar and pineapple industries.			✓
(2) Growth and development of diversified agriculture throughout the State.			✓
(3) An agriculture industry that continues to constitute a dynamic and essential component of Hawaii's strategic, economic, and social well-being.			✓
Chapter 226-8 Objective and policies for the economy -- visitor industry.			
Objective: Planning for the State's economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawaii's economy.			✓
Chapter 226-9 Objective and policies for the economy -- federal expenditures.			
Objective: Planning for the State's economy with regard to federal expenditures shall be directed towards achievement of the objective of a stable federal investment base as an integral component of Hawaii's economy.			✓
Chapter 226-10 Objective and policies for the economy -- potential growth and innovative activities.			
Objective: Planning for the State's economy with regard to potential growth and innovative activities shall be directed towards achievement of the objective of development and expansion of potential growth and innovative activities that serve to increase and diversify Hawaii's economic base.		✓	

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Chapter 226-10.5 Objectives and policies for the economy – – information industry.			
Objective: Planning for the State's economy with regard to telecommunications and information technology shall be directed toward recognizing that broadband and wireless communication capability and infrastructure are foundations for an innovative economy and positioning Hawaii as a leader in broadband and wireless communications and applications in the Pacific Region.			✓
Chapter 226-11 Objectives and policies for the physical environment – – land based, shoreline, and marine resources.			
Objectives: Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:			
(1) Prudent use of Hawaii's land-based, shoreline, and marine resources.		✓	
(2) Effective protection of Hawaii's unique and fragile environmental resources.			✓
Chapter 226-12 Objective and policies for the physical environment – – scenic, natural beauty, and historic resources.			
Objective: Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaii's scenic assets, natural beauty, and multi-cultural/historical resources.		✓	
Chapter 226-13 Objectives and policies for the physical environment – – land, air, and water quality.			
Objectives: Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives.			
(1) Maintenance and pursuit of improved quality in Hawaii's land, air, and water resources.	✓		
(2) Greater public awareness and appreciation of Hawaii's environmental resources.		✓	
Chapter 226-14 Objective and policies for facility systems – – in general.			
Objective: Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.		✓	
Chapter 226-15 Objectives and policies for facility systems – – solid and liquid waste.			
Objectives: Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:			
(1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.		✓	
(2) Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.	✓		

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Chapter 226-16 Objective and policies for facility systems – – water.			
Objective: Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.	✓		
Chapter 226-17 Objectives and policies for facility systems – – transportation.			
Objectives: Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives:			
(1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.			✓
(2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.			✓
Chapter 226-18 Objectives and policies for facility systems – – energy.			
Objectives: Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:			
(1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;		✓	
(2) Increased energy security and self-sufficiency through the reduction and ultimate elimination of Hawaii's dependence on imported fuels for electrical generation and ground transportation.	✓		
(3) Greater diversification of energy generation in the face of threats to Hawaii's energy supplies and systems;		✓	
(4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use; and	✓		
(5) Utility models that make the social and financial interests of Hawaii's utility customers a priority.			✓
Chapter 226-18.5 Objectives and policies for facility systems – – telecommunications.			
Objectives: Planning for the State's telecommunications facility systems shall be directed towards the achievement of dependable, efficient, and economical statewide telecommunications systems capable of supporting the needs of the people.			✓
Chapter 226-19 Objectives and policies for socio-cultural advancement – – housing.			
Objectives: Planning for the State's socio-cultural advancement with regard to housing shall be directed toward the achievement of the following objectives:			✓
(1) Greater opportunities for Hawaii's people to secure reasonably priced, safe, sanitary, and livable homes, located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals, through collaboration and cooperation between government and nonprofit and for-profit developers to ensure that more affordable housing is made available to very low-, low- and moderate-income segments of Hawaii's population.			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
(2) The orderly development of residential areas sensitive to community needs and other land uses.			✓
(3) The development and provision of affordable rental housing by the State to meet the housing needs of Hawaii's people.			✓
Chapter 226-20 Objectives and policies for socio-cultural advancement – – health.			
Objectives: Planning for the State's socio-cultural advancement with regard to health shall be directed towards achievement of the following objectives:			
(1) Fulfillment of basic individual health needs of the general public.			✓
(2) Maintenance of sanitary and environmentally healthful conditions in Hawaii's communities.			✓
(3) Elimination of health disparities by identifying and addressing social determinants of health.			✓
Chapter 226-21 Objectives and policies for Socio-cultural advancement – – education.			
Objective: Planning for the State's socio-cultural advancement with regard to education shall be directed towards achievement of the objective of the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations.		✓	
Chapter 226-22 Objective and policies for socio-cultural advancement – – social services.			
Objective: Planning for the State's socio-cultural advancement with regard to social services shall be directed towards the achievement of the objective of improved public and private social services and activities that enable individuals, families, and groups to become more self-reliant and confident to improve their well-being.			✓
Chapter 226-23 Objective and policies for socio-cultural advancement – – leisure.			
Objective: Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.			✓
Chapter 226-24 Objective and policies for socio-cultural advancement – – individual rights and personal well-being.			
Objective: Planning for the State's socio-cultural advancement with regard to individual rights and personal well-being shall be directed towards achievement of the objective of increased opportunities and protection of individual rights to enable individuals to fulfill their socio-economic needs and aspirations.			✓
Chapter 226-25 Objective and policies for socio-cultural advancement – – culture.			
Objective: Planning for the State's socio-cultural advancement with regard to culture shall be directed toward the achievement of the objective of enhancement of cultural identities, traditions, values, customs, and arts of Hawaii's people.		✓	

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Chapter 226-26 Objectives and policies for socio-cultural advancement – – public safety.			
Objective: Planning for the State's socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives:			
(1) Assurance of public safety and adequate protection of life and property for all people.			✓
(2) Optimum organizational readiness and capability in all phases of emergency management to maintain the strength, resources, and social and economic well-being of the community in the event of civil disruptions, wars, natural disasters, and other major disturbances.			✓
(3) Promotion of a sense of community responsibility for the welfare and safety of Hawaii's people.			✓
Chapter 226-27 Objectives and policies for socio-cultural advancement – – government.			
Objectives: Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives:			
(1) Efficient, effective, and responsive government services at all levels in the State.			✓
(2) Fiscal integrity, responsibility, and efficiency in the state government and county governments.			✓

The proposed Miki Basin Industrial Park is consistent with the State Plan's goals and objectives. The project strengthens the state's economy through short-term employment via construction development as well as long-term opportunities in industrial and renewable energy industries. Construction BMPs will be used to manage and minimize land, air and water quality impacts, while the industrial park's planned 127 acres of renewable energy projects will reduce Lāna'i's future greenhouse gas emissions.

The Applicant will be responsible for providing code compliant wastewater systems. The Applicant will also ensure the adequacy of water supply and transmission/distribution capacity. Once the project is completed, individual users within the industrial park will be responsible for managing private solid waste collection services and promoting the conservation of water resources.

Priority Guidelines

"Priority guidelines" means those guidelines which shall take precedence when addressing areas of statewide concern. This section addresses applicability criteria to the priority guidelines set forth in HRS 226-103.

Priority guidelines of the Hawai'i State Plan covers the economy, population growth and land resources, crime and criminal justice, affordable housing, quality education, sustainability, and climate change adaptation.

Table 8 below summarizes the relationship between the proposed action and the priority guidelines of the Hawai'i State Plan. More detailed discussion is presented in **Appendix "K-1"**.

Table 8. Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies (Chapters 226-101 to 226-109)

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	N/A
Chapter 226-101: Purpose. The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.			
Chapter 226-102: Overall direction. The State shall strive to improve the quality of life for Hawaii's present and future population through the pursuit of desirable courses of action in seven major areas of statewide concern which merit priority attention: economic development, population growth and land resource management, affordable housing, crime and criminal justice, quality education, principles of sustainability, and climate change adaptation.			
Chapter 226-103: Economic priority guidelines.			
(a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawaii's people and achieve a stable and diversified economy:	✓		
(b) Priority guidelines to promote the economic health and quality of the visitor industry:			✓
(c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:			✓
(d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:			✓
(e) Priority guidelines for water use and development:		✓	
(f) Priority guidelines for energy use and development:	✓		
(g) Priority guidelines to promote the development of the information industry:			✓
Chapter 226-104: Population growth and land resources priority guidelines.			
(a) Priority guidelines to effect desired statewide growth and distribution:			✓
(b) Priority guidelines for regional growth distribution and land resource utilization:	✓		
Chapter 226-105: Crime and criminal justice.			
Priority guidelines in the area of crime and criminal justice:			✓
Chapter 226-106: Affordable housing.			
Priority guidelines for the provision of affordable housing:			✓
Chapter 226-107: Quality education.			
Priority guidelines to promote quality education:			✓
CHAPTER 226-108: Sustainability			
Priority guidelines and principles to promote sustainability shall include:		✓	
CHAPTER 226-109: Climate change adaptation			
Priority guidelines and principles to promote climate change adaptation shall include:		✓	

The proposed Miki Basin Industrial Park is directly applicable to Hawai'i's priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawai'i's people and achieve a stable and diversified economy. The project provides short-term employment via construction development, as well as long-term opportunities in industrial and renewable energy industries. The industrial park includes 127 acres of renewable energy projects (e.g., photovoltaic plus battery energy storage).

The proposed project implements the vision for placement of industrial land uses on the island and expands upon the much-needed industrially zoned land area called for in the Lāna'i Community Plan. While the underlying lands are designated "Agricultural" by the State Land Use Commission and County zoning, the Community Plan's "Light Industrial" and "Heavy Industrial" land use designations recognize the need to provide for these critical economic development uses which may include relocation of uses from Lanai City. This location, adjacent to Lāna'i Airport, also assures that sensitive environments such as shoreline areas, open spaces, and scenic resources will be avoided.

C. STATE FUNCTIONAL PLAN

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

Thirteen (13) Functional Plans have been prepared by State agencies. **Table 9** provides an assessment of the relationship between the proposed action and each of the 13 Functional Plans.

Table 9. Relationship Between the Proposed Miki Basin Industrial Project and the State Functional Plans

State Functional Plan		State Coordinating Agency	Purpose	Analysis
1	Agriculture Functional Plan (1991)	Department of Agriculture	Continued viability of agriculture throughout the State	Although the development of the proposed project will result in a loss of 200 acres of agricultural lands on Lānaʻi, the lands are characterized by a low productivity rating and have not been cultivated since the pineapple plantation closed in 1992. Furthermore, the 200-acre site amounts to only 1.1 percent of the approximately 18,000 acres of former plantation lands on Lānaʻi that remain available for agricultural use. The lack of significant growth of diversified crops reflects increased competition from resulting from technology and other advances that have improved the delivery of fresh produce (faster, less spoilage, better coordination of supply to demand), along with trade agreements which increased food exports to the U.S. from low-cost producers in Mexico, Central America, South America, and elsewhere. Refer to Appendix “B” .
2	Conservation Lands State Functional Plan (1991)	Department of Land and Natural Resources	Addresses issues of population and economic growth and its strain on current natural resources; broadening public use of natural resources while protecting lands and shorelines from overuse; additionally, promotes the aquaculture industry	The proposed project will not utilize any State Conservation lands. Similarly, the project is located inland, and not near the coastline. The proposed action is not anticipated to contravene the objectives and policies of this functional plan.
3	Education State Functional Plan (1989)	Department of Education	Improvements to Hawaiʻi’s educational curriculum, quality of educational staff, and access to adequate facilities	The proposed project will not create new demands on public education. The proposed action is not anticipated to contravene the objectives and policies of this functional plan.

Table 9. Relationship Between the Proposed Miki Basin Industrial Project and the State Functional Plans
(continued)

State Functional Plan		State Coordinating Agency	Purpose	Analysis
4	Employment State Functional Plan (1990)	Department of Labor and Industrial Relations	Improve the qualifications, productivity, and effectiveness of the State's workforce through better education and training of workers as well as efficient planning of economic development, employment opportunities, and training activities	The project provides short-term employment via construction development as well as long-term opportunities in industrial and renewable energy industries. This will provide local residents with opportunities to successfully compete in the workforce and potentially start new businesses that create more job opportunities. The proposed action is not anticipated to contravene the objectives and policies of this functional plan.
5	Energy State Functional Plan (1991)	Department of Business, Economic Development and Tourism	Lessen the reliance on petroleum and other fossil fuels in favor of alternative sources of energy so as to keep up with the State's increasing energy demands while also becoming a more sustainable island state; achieving dependable, efficient, and economical statewide energy systems	The proposed action is supportive of the Energy State Functional Plan's objectives and policies. The proposed Miki Basin Industrial Park includes 127 acres of renewable energy projects (e.g., photovoltaic plus battery energy storage), which will reduce Lāna'i's long-term dependence on fossil fuels and decrease greenhouse gas emissions.
6	Health State Functional Plan (1989)	Department of Health	Improve health care system by providing for those who don't have access to private health care providers; increasing preventative health measures; addressing 'quality of care' elements in private and public sectors to cut increasing costs	The proposed action is not anticipated to contravene the objectives and policies of this functional plan.
7	Higher Education Functional Plan (1984)	University of Hawai'i	Prepare Hawai'i's citizens for the demands of an increasingly complex world through providing technical and intellectual tools	The proposed action is not anticipated to contravene the objectives and policies of this functional plan.

Table 9. Relationship Between the Proposed Miki Basin Industrial Project and the State Functional Plans
(continued)

State Functional Plan		State Coordinating Agency	Purpose	Analysis
8	Historic Preservation State Functional Plan (1991)	Department of Land and Natural Resources	Preservation of historic properties, records, artifacts and oral histories; provide public with information/education on the ethnic and cultural heritages and history of Hawai'i	An Archaeological Inventory Survey (AIS) was prepared for sites within the Miki Basin Industrial Park. A data recovery plan will be implemented prior to proposed construction activities, and research questions will be developed and addressed through data yielded by laboratory testing. Refer to Appendix "D-1" . The AIS also included research compliant with guidelines for development of a Cultural Impact Assessment (CIA) study. The proposed project will not have any significant negative impact on traditional and customary practices. Refer to Appendix "D-4" . The proposed action is in consonance with this functional plan.
9	Housing State Functional Plan (2017)	Hawai'i Housing Finance and Development Corporation	Based largely on joint public/private efforts to finance, build, and maintain an adequate supply of affordable housing. It will be a working tool to guide the State, the counties, as well as the private sector in meeting the overall goal that every Hawaii resident will have the opportunity to live in a safe, decent and affordable home.	The proposed action is not anticipated to contravene the objectives and policies of this functional plan.
10	Human Services State Functional Plan (1989)	Department of Human Services	Refining support systems for families and individuals by improving elderly care, increasing preventative measures to combat child/spousal abuse and neglect; providing means for 'self-sufficiency'	The proposed action is not anticipated to contravene the objectives and policies of this functional plan.

Table 9. Relationship Between the Proposed Miki Basin Industrial Project and the State Functional Plans
(continued)

State Functional Plan		State Coordinating Agency	Purpose	Analysis
11	Recreation State Functional Plan (1991)	Department of Land and Natural Resources	Manage the use of recreational resources via addressing issues: (1) ocean and shoreline recreation, (2) mauka, urban, and other recreation opportunities, (3) public access to shoreline and upland recreation areas, (4) resource conservation and management, (5) management of recreation programs/facilities/areas, and (6) wetlands protection and management	The proposed action is not anticipated to contravene the objectives and policies of this functional plan.
12	Tourism State Functional Plan (1991)	Department of Business, Economic Development and Tourism	Balance tourism/economic growth with environmental and community concerns; development that is cognizant of the limited land and water resources of the islands; maintaining friendly relations between tourists and community members; development of a productive workforce and enhancement of career and employment opportunities in the visitor industry	The proposed action is not anticipated to contravene the objectives and policies of this functional plan.
13	Transportation State Functional Plan (1991)	Department of Transportation	Development of a safer, more efficient transportation system that also is consistent with planned physical and economic growth of the state; construction of facility and infrastructure improvements; develop a transportation system balanced with new alternatives; pursue land use initiatives which help reduce travel demand	The proposed project will be implemented in proximity to existing State and County roadway facilities. The project's Traffic Impact Analysis Report (TIAR) identifies recommended traffic improvements to be implemented with the project. Refer to Appendix "G" .

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 Maui County Code, 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.

1. Countywide Policy Plan

The Countywide Policy Plan was adopted in March 2010 and is a comprehensive policy document for the islands of Maui County to the year 2030. The plan replaces the General Plan of the County of Maui 1990 Update and provides the policy framework for the development of the Maui Island Plan as well as for updating the nine (9) detailed Community Plans. The Countywide Policy Plan provides broad goals, objectives, policies and implementing actions that portray the desired direction of the County's future. Goals are intended to describe a desirable condition of the County by the year 2030 and are intentionally general. Objectives tend to be more specific and may be regarded as milestones to achieve the larger goals. Policies are not intended as regulations, but instead provide a general guideline for County decision makers, departments, and collaborating organizations toward the attainment of goals and objectives. Implementing actions are specific tasks, procedures, programs, or techniques that carry out policy.

The table below summarizes the relationship between the proposed action and the 11 goals of the Countywide Policy Plan. The relationship between the action and the goals are categorized into the following groups. More detailed analysis and discussion, including the methodology used, is presented in **Appendix "K-2"**.

1. **Directly applicable:** the action and its potential effects directly advances, promotes or affects the relevant goal, objective, or policy.

2. **Indirectly applicable:** the action and its potential effects indirectly supports, advances or affects the objective, policy or priority guideline.
3. **Not applicable:** the action and its potential effects have no direct or indirect relationship to the objectives and policies of the Countywide Policy Plan.

In general, a proposed action’s applicability to the goals, objectives, policies and implementing actions of the Countywide Policy Plan is judged on the basis of the action’s direct or indirect relationship to the respective objectives, policies and priority directions. It is recognized that the categorization of “applicability” is subject to interpretation and should be appropriately considered in the context of local and regional conditions. The analysis presented in **Table 10** and summarized below focuses on key elements of the proposed action’s relationship to the Countywide Policy Plan. Detailed discussion on the applicability of the proposed action to each goal and related objectives, policies, and implementing actions of the Countywide Policy Plan is provided in **Appendix “K-2”**.

Table 10. Countywide Policy Plan

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
A. PROTECT THE NATURAL ENVIRONMENT			
Goal: Maui County’s natural environment and distinctive open spaces will be preserved, managed, and cared for in perpetuity.		✓	
B. PRESERVE LOCAL CULTURES AND TRADITIONS			
Goal: Maui County will foster a spirit of pono and protect, perpetuate, and reinvigorate its residents’ multi-cultural values and traditions to ensure that current and future generations will enjoy the benefits of their rich island heritage.		✓	
C. IMPROVE EDUCATION			
Goal: Residents will have access to lifelong formal and informal educational options enabling them to realize their ambitions.			✓
D. STRENGTHEN SOCIAL AND HEALTHCARE SERVICES			
Goal: Health and social services in Maui County will fully and comprehensively serve all segments of the population.			✓
E. EXPAND HOUSING OPPORTUNITIES FOR RESIDENTS			
Goal: Quality, island-appropriate housing will be available to all residents.			✓
F. STRENGTHEN THE LOCAL ECONOMY			
Goal: Maui County’s economy will be diverse, sustainable, and supportive of community values.	✓		
G. IMPROVE PARKS AND PUBLIC FACILITIES			
Goal: A full range of island-appropriate public facilities and recreational opportunities will be provided to improve the quality of life for residents and visitors.			✓
H. DIVERSIFY TRANSPORTATION OPTIONS			
Goal: Maui County will have an efficient, economical, and environmentally sensitive means of moving people and goods.		✓	

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
I. IMPROVE PHYSICAL INFRASTRUCTURE			
Goal: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.		✓	
J. PROMOTE SUSTAINABLE LAND USE AND GROWTH MANAGEMENT			
Goal: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.		✓	
K. STRIVE FOR GOOD GOVERNANCE			
Goal: Government services will be transparent, effective, efficient, and responsive to the needs of residents.	✓		
L. MITIGATE CLIMATE CHANGE AND WORK TOWARD RESILIENCE			
Goal: Minimize the causes and negative effects of climate change.	✓		

The proposed Miki Basin Industrial Park directly or indirectly promotes many of the goals and objectives of the Countywide Policy Plan. This includes the project's investment in the local economy, which will support local businesses that are linked to the construction, industrial, and renewable energy industries. From a long-term perspective, the proposed action supports economic diversification and the overall business environment by providing opportunities for new enterprises to establish places of operations for their respective ventures. The project also implements the vision for placement of industrial land uses on the island and expands upon the much-needed industrially zoned land area called for in the Lāna'i Community Plan. The project directly supports the objective of mitigating climate change, with 127 acres proposed for renewable energy use that will reduce the island's dependence on fossil fuels.

The proposed action directly promotes civic engagement and good governance through the Chapter 343, HRS, Environmental Assessment (EA) and land use entitlements processes. Public participation is promoted through the review process for the Draft EA and land use applications, as well as through the Urban Design Review Board and Lāna'i Planning Commission proceedings. Additionally, the applicant has undertaken a community outreach process designed to inform the larger community of the proposed project. Collectively, the foregoing processes support community-based decision-making.

2. Lāna'i Community Plan

The project site is located in the Lāna'i Community Plan region which is one (1) of nine (9) Community Plan regions established in the County of Maui. Planning for each region is guided by the respective Community Plans, which are designed to implement the Maui County General Plan. Each Community Plan contains

recommendations and standards which guide the sequencing, patterns, and characteristics of future development in the region.

The Lānaʻi Community Plan was adopted by the County of Maui through Ordinance No. 4343 which took effect on July 26, 2016.

Land use guidelines are set forth by the Lānaʻi Community Plan Land Use Map. See **Figure 9**. The project site is designated as "Light Industrial" and "Heavy Industrial" by the Community Plan. The project is consistent with the following objectives and policies of the Lānaʻi Community Plan:

HAZARD MITIGATION

Goal:

Lanaʻi will be prepared for natural disasters.

Policy:

- 3. Encourage economic diversity, environmental health, infrastructure, maintenance, and hazard preparedness to improve the community's resiliency.*

Analysis:

The proposed Miki Basin Industrial Park will include 127 acres for renewable energy projects (e.g., photovoltaic plus battery energy storage), which aim to improve the overall resiliency and sustainability of Lānaʻi. The planned increase in renewable energy projects will also reduce the island's reliance on fossil fuel, currently imported from off-island and used to generate electricity by Maui Electric Company.

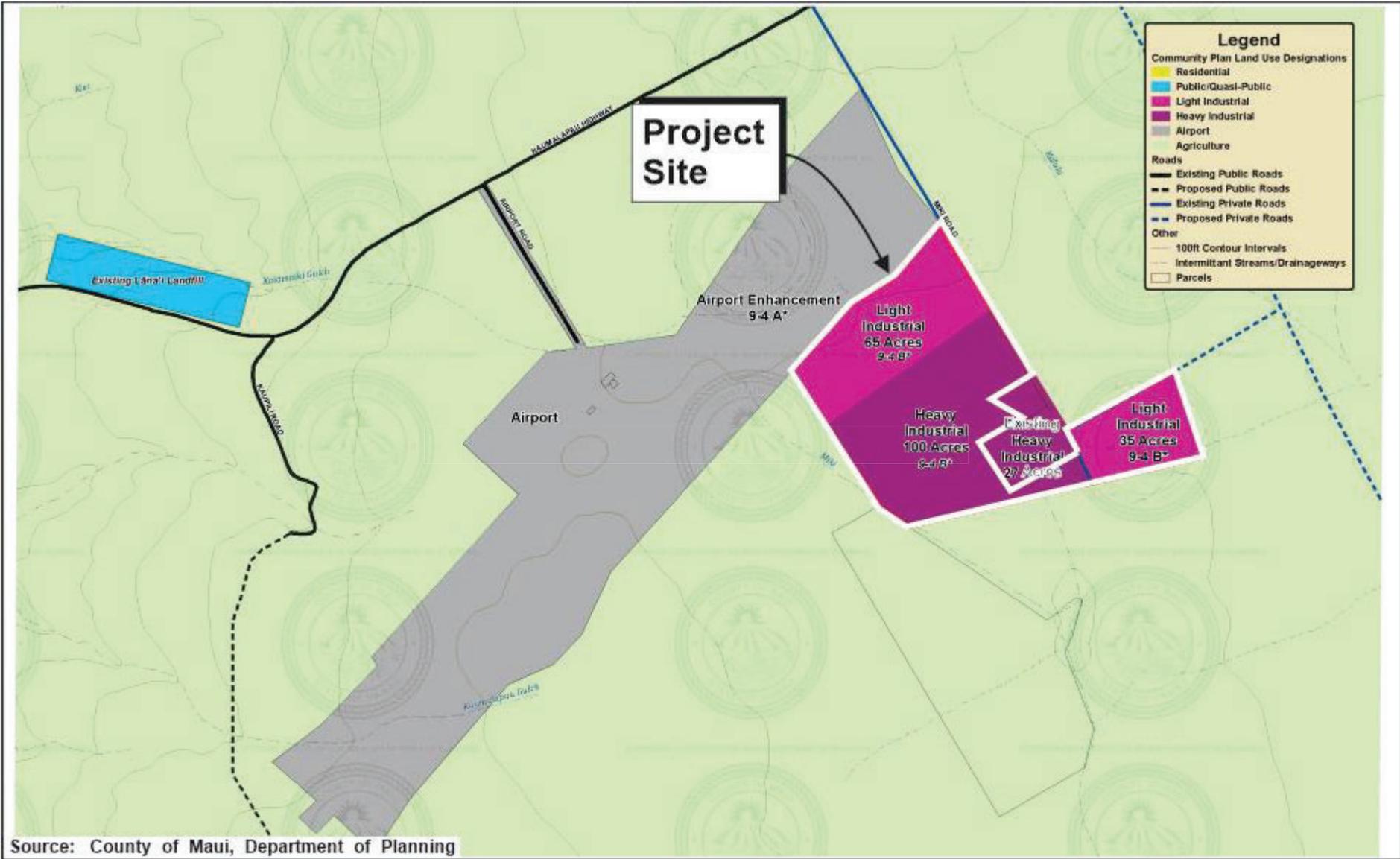
CULTURAL, HISTORIC, AND SCENIC RESOURCES

Goal:

Lānaʻi's diverse cultural, archaeological, and historic resources and practices, and scenic resources will be protected for future generations.

Policy:

- 9. Require developments to mitigate their impacts on historic, cultural, natural, and scenic resources.*



Source: County of Maui, Department of Planning

Figure 9

Miki Basin Industrial Park
Lāna'i Community Plan Map

NOT TO SCALE



Prepared for: Lanai Resorts LLC, a Hawaii Limited Liability Company doing business as Pūlama Lāna'i



Analysis: The proposed project has been designed so as to not impede scenic views from upland areas. An AIS has been prepared and accepted by the SHPD. The Applicant will abide by the recommendations and requirements from the SHPD.

ECONOMIC DEVELOPMENT

Goal:

A stable, sustainable, and diverse economy that is consistent and compatible with Lana'i's rural island lifestyle.

Policy:

1. *Support diversification of Lana'i's economy.*

Analysis: While much of Lānaʻi's economy relies on the visitor industry, the proposed Miki Basin Industrial Park will include 127 acres for renewable energy projects (e.g., Photovoltaic plus battery energy storage) and 26 acres for new industrial uses. Possible new future industrial uses include a slaughterhouse, warehouse space for cold storage, laboratory/testing facilities, niche product development, automotive services, multi-media facility and an animal hospital. These new uses will further the diversification of the island's economy.

Policy:

8. *Encourage and support lease and fee simple land ownership options for residential commercial, and industrial properties.*

Analysis: The Applicant may lease land within the Miki Basin Industrial Park for individuals to pursue industrial operations and businesses. The Applicant will develop the major common infrastructure, such as roads and electric and water utility lines, to support the industrial park, while individual users will be responsible for vertical development on their particular properties and for compliance with applicable regulatory requirements associated with their individual developments.

INFRASTRUCTURE AND UTILITIES (ENERGY)

Goal:

Increase the proportion of electricity that is generated from renewable sources to reduce electricity costs and Lana'i's dependence on fossil fuels.

Policy:

1. *Support the increased use of renewable energy sources.*

Analysis:

As previously mentioned, the proposed Miki Basin Industrial Park will include 127 acres for renewable energy projects (e.g., photovoltaic plus battery energy storage), which will reduce Lāna'i's reliance on fossil fuel.

LAND USE

Goal:

Lana'i will have an efficient and sustainable land use pattern that protects agricultural lands, open space, natural systems, and rural and urban character.

Policy:

2. *Limit new residential, commercial, or industrial development to existing communities and proposed expansion areas as shown on the Lana'i Community Plan land use maps.*

Analysis:

The proposed project implements the vision for placement of industrial land uses on the island and expands upon the much-needed industrially zoned land area called for in the Lāna'i Community Plan.

Policy:

10. *Ensure all lands are zoned and zoning standards are consistent with community plan policies and land use designations as shown on Maps 9.2 through 9.6.*

Analysis:

The project area is designated "Agricultural" by the State Land Use Commission (SLUC) and "Agricultural" and "Interim" by the Maui County Zoning. The proposed action would seek to align the State and County land use designations to districts similar to the "Light Industrial" and "Heavy Industrial" designation by the Lāna'i

Community Plan. The Applicant will seek a District Boundary Amendment (DBA) from SLUC to designate the subject property “Urban”, as well as a Change of Zoning (CIZ) request from “Agricultural” and “Interim” to “M-1, Light Industrial” and “M-2, Heavy Industrial” to the Maui County Council. The EA will serve as the primary supporting document for the DBA and CIZ processes.

E. COUNTY ZONING

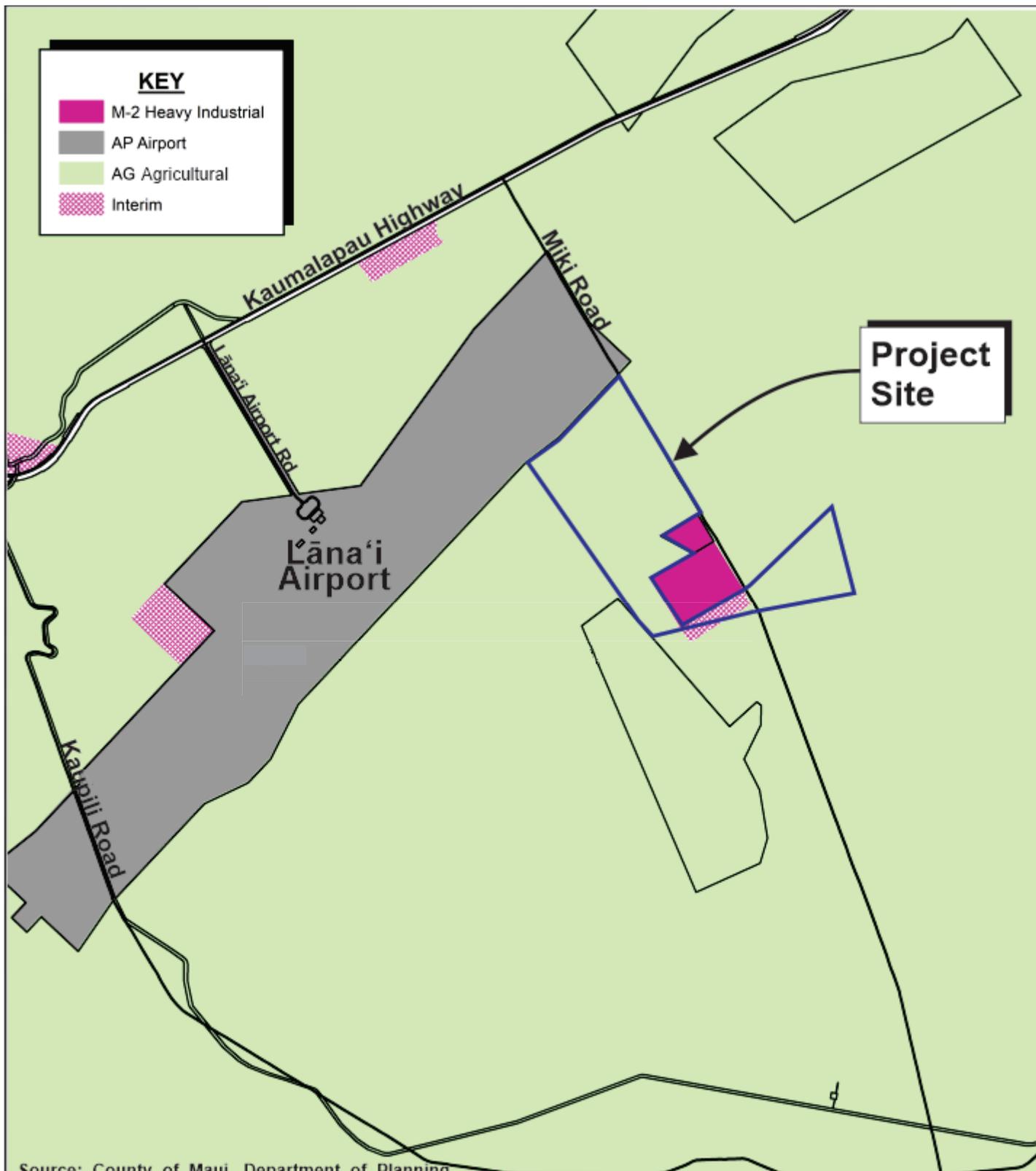
The land underlying the proposed project site are zoned “Agricultural”, with a small portion zoned “Interim” by the Maui County Zoning. See **Figure 10**. The Applicant will seek a Change of Zoning (CIZ) request to the Maui County Council for “M-1, Light Industrial” and “M-2, Heavy Industrial” designation, similar to the designation called for in the Lāna‘i Community Plan. The EA will serve as the primary supporting document for the CIZ process.

Pūlama Lāna‘i will work with Maui County in establishing the allowable uses in the Miki Basin Industrial Park from the overall permitted uses allowed by zoning. The Miki Basin Industrial Park will focus on Light and Heavy Industrial uses, including renewable energy uses, an asphalt plant, a concrete recycling and rock crushing operation, and materials storage and stockpiling of aggregate and construction materials. Possible new future industrial uses in the project area include a slaughterhouse, warehouse space for cold storage, laboratory/testing facilities, niche product development, automotive services, multimedia facility, animal hospital, and other industrial related uses allowed under “M-1, Light Industrial” and “M-2, Heavy Industrial” zoning. It is noted that certain uses, including asphalt plant and rock crushing operations, are identified as special uses by the zoning ordinance and the applicable County Special Use Permit will be obtained.

MCC, Section 19.510.040 outlines the criteria which a project must meet in order to be granted a CIZ by the Maui County Council. The proposed project was evaluated with respect to these criteria as discussed below:

1. **The proposed request meets the intent of the general plan and the objectives and policies of the community plans of the county.**

As previously discussed, the proposed project implements the vision for placement of industrial land uses on the island and expands upon the much-needed industrially zoned land area called for in the Lāna‘i Community Plan. The community plan states: *“The existing industrial uses on Miki Road will be expanded into a proposed industrial area of approximately 200 acres”*.



Source: County of Maui, Department of Planning

Figure 10 Miki Basin Industrial Park
Maui County Zoning Map



Prepared for: Lanai Resorts LLC, a Hawaii Limited Liability Company doing business as Pūlama Lānaʻi



Pūlama Lanai/MikiBasinExp: 1769/Applications/Figures/MauiCountyZoning

2. **The proposed request is consistent with the applicable community plan land use map of the county.**

As previously discussed, the Lānaʻi Community Plan already designates the project area with the appropriate land use of “Light Industrial” and “Heavy Industrial”.

3. **The proposed request meets the intent and purpose of the district being requested.**

The proposed Miki Basin Industrial Park conforms to the requested “M-1, Light Industrial” District designation, which includes “*warehousing and distribution types of activity, and permits most compounding, assembly, or treatment of articles or materials,*” according to MCC Chapter 19.24. The project also conforms to the requested “M-2, Heavy Industrial” District designation, which includes the “*manufacture or treatment of goods from raw materials,*” according to MCC Chapter 19.26.

The industrial park includes the concrete recycling and rock crushing operation, and materials storage and stockpiling of aggregate and construction materials. Possible new future industrial uses in the project area include a slaughterhouse, warehouse space for cold storage, laboratory/testing facilities, niche product development, automotive services, multi-media facility, animal hospital, and other industrial related uses allowed under “M-1, Light Industrial” and “M-2, Heavy Industrial” zoning.

4. **The application, if granted, would not adversely affect or interfere with public or private schools, parks, playgrounds, water systems, sewage and solid waste disposal, drainage, roadway and transportation systems, or other public requirements, conveniences and improvements.**

The application, if granted, will not adversely affect or interfere with public or private schools, parks, playgrounds as the proposed development is not considered a direct population generator, and will not necessitate an expansion of existing services or provision of new social services.

However, with regards to infrastructure, the proposed Miki Basin Industrial Park project will be developed to include all required infrastructural systems needed to support the project. A Traffic Impact Analysis Report, Water Master Plan, a study on new well supply alternatives for the Mānele Bay Water System, Wastewater Master Plan, and Drainage Report were all prepared for the project, which assessed existing infrastructure, projected project demand and needs, and proposed infrastructure systems to support the proposed project to ensure the proposed development’s infrastructural needs are appropriately addressed. Refer

to Appendix “G”, Appendix “H-1”, Appendix “H-2”, Appendix “I”, and Appendix “J”.

5. **The application, if granted, would not adversely impact the social, cultural, economic, environmental, and ecological character and quality of the surrounding area.**

As previously discussed, the proposed project is located on land adjoining the Lānaʻi Airport, the Maui Electric Company (MECO) 5-acre power plant, and the existing 20-acre Miki Basin Industrial Condominium. The master-planned project is a 200-acre light and heavy industrial development located in an area called for in the Lānaʻi Community Plan. It would not adversely impact social, cultural, economic, environmental, and ecological character and quality of the area.

6. **If the application change in zoning involves the establishment of an agricultural district with a minimum lot size of two acres, an agricultural feasibility study shall be required and reviewed by the department of agriculture and the United States Soil and Conservation Service.**

The CIZ does not involve the establishment of an agricultural district. The request is for a change in zoning to “M-1, Light Industrial” and “M-2, Heavy Industrial”.

During the CIZ process, it is understood that the County Council may establish conditions of zoning which are recorded in a unilateral agreement against the property. Conditions of zoning may require preparation of a compliance report addressing compliance and fulfillment of the conditions.

Additionally, MCC, Section 19.30A.020 outlines criteria applied to agricultural lands for determining whether those lands should be retained in the agricultural district. If two (2) of the following three (3) criteria are met, the lands are given high priority for retention:

- A. *Agricultural Lands of Importance to the State of Hawaiʻi (ALISH);*
- B. *Lands not classified by the ALISH system whose agricultural land suitability, based on soil, topographic, and climatic conditions, supports the production of agricultural commodities, including but not limited to coffee, taro, watercress, ginger, orchard and flower crops and nonirrigated pineapple. In addition, these lands shall include lands used for intensive animal husbandry, and lands in agricultural cultivation in five of the ten years immediately preceding the date of approval of this chapter; and*
- C. *Lands which have seventy-five percent or more of their boundaries contiguous to lands within the agricultural district.*

Although the lands underlying the proposed project meet both Criteria A and C, there are several reasons supporting the proposed rezoning of the lands from “Agricultural” to “M-1, Light Industrial” and “M-2, Heavy Industrial”.

1. **Important Agricultural Lands**

As previously mentioned, the lands underlying the proposed project site are not designated as Important Agricultural Lands (IAL) and there are no IAL lands in the vicinity of the proposed project.

2. **Agriculture Functional Plan**

The Agriculture Functional Plan supports a system of standards, criteria, and procedures “to redesignate parcels of ‘important agricultural lands’ to ‘urban’ or ‘other use’ upon a demonstrated change of economic or social conditions, where the requested redesignation will provide greater benefits to the public than its retention in the IAL district” (State of Hawai‘i, Department of Agriculture, 1991). Although the project site is not designated IAL, economic and social conditions have evolved over the years, with plantation agriculture declining in Hawai‘i. Furthermore, the proposed use of the lands for the Miki Basin Industrial Park project would consolidate industrial uses to a location near similar facilities and activities. These uses would provide long-term public benefit. As such, the proposed rezoning of land from “Agricultural” to “M-1, Light Industrial” and “M-2, Heavy Industrial” is anticipated to provide greater benefits to the public than retaining the land in an underutilized agricultural designation.

3. **Lāna‘i Community Plan**

The proposed project implements the vision for placement of industrial land uses on the island and expands upon the much-needed industrially zoned land area called for in the Lāna‘i Community Plan. In this regard, the proposed rezoning is supported by the Lāna‘i Community Plan.

4. **Impacts on Agriculture**

An Impacts on Agriculture report was prepared for the proposed project to analyze potential impacts the project has on agricultural resources. Refer to **Appendix “B”**. The loss of 200 acres of agriculture land on Lāna‘i, plus the loss of agricultural land due to other projects (i.e., the cumulative impact), is too small to affect the growth of diversified agriculture on Lāna‘i or Statewide. The project will also not have any adverse effects on any existing onsite agricultural operations since the land has not been cultivated since the pineapple plantation closed in 1992.

The impacts on agriculture will be offset by the benefits of the project, including:

- (1) employment generated by construction activity and onsite commercial and industrial activity;

- (2) offsite economic activity generated by the purchases of goods and services by construction companies and the families of construction workers;
- (3) tax revenues derived from County property taxes and State taxes (excise, personal income, and corporate income); and
- (4) goods and services provided by businesses of the project.

F. LĀNA‘I WATER USE AND DEVELOPMENT PLAN

The Lāna‘i Water Use and Development Plan (WUDP) is part of the requirements of HRS Section 174(C)-31, HAR Section 13-7-170, and Maui County Code Section 2.88A. The amended version of the Lāna‘i Water Use and Development Plan (WUDP), was submitted to the Maui County Council Chair by the Maui County Director of Water Supply on February 25, 2011. The WUDP was formerly adopted by the Commission on Water Resource Management (CWRM) on August 15, 2012, almost ten (10) years ago. The applicant acquired the assets on Lāna‘i during 2012 and was not part of the stakeholder group that participated in the many planning sessions for the WUDP. As such, many of the proposed projects included in the WUDP have either changed significantly or are not being considered. The discussion on water demand presented in **Table 6** in Chapter II is based on a more realistic projected water demand as the applicant has included the water demand for projects that have been submitted or approved in the entitlement and permitting processes.

G. HAWAI‘I COASTAL ZONE MANAGEMENT PROGRAM

The Hawai‘i Coastal Zone Management Program (HCZMP), as formalized in Chapter 205A-2, HRS, establishes objectives and policies for the preservation, protection, and restoration of natural resources of Hawai‘i’s coastal zone. The applicability of coastal zone management considerations applies to all lands in the State of Hawai‘i and, as such, has been reviewed and assessed as follows.

1. Recreational Resources

Objective:

Provide coastal recreational opportunities accessible to the public.

Policies:

- a. *Improve coordination and funding of coastal recreational planning and management; and*
- b. *Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:*

- i. *Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;*
- ii. *Requiring restoration of coastal resources that have recreational and ecosystem value including, but not limited to coral reefs, surfing sites, fishponds, sand beaches, and coastal dunes when these resources will be unavoidably damaged by development; or requiring monetary compensation to the State for recreation when restoration is not feasible or desirable;*
- iii. *Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;*
- iv. *Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;*
- v. *Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;*
- vi. *Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;*
- vii. *Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and*
- viii. *Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.*

Response: The project is not located in proximity to the shoreline. The proposed project will not impact coastal recreational resources, nor will it affect public shoreline access and activities.

2. Historic Resources

Objective:

Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Policies:

- a. *Identify and analyze significant archaeological resources;*
- b. *Maximize information retention through preservation of remains and artifacts or salvage operations; and*
- c. *Support state goals for protection, restoration, interpretation, and display of historic resources.*

Response: An Archaeological Inventory Survey (AIS) was accepted for sites within the Miki Basin Industrial Park. A data recovery plan will be implemented prior to the proposed construction activities, and research questions will be developed and addressed through data yielded by laboratory testing.

Additionally, the Applicant will comply with all applicable County, State and Federal laws and rules regarding the treatment of archaeological and historic sites. Should evidence of archaeological or cultural resources be encountered during site preparation work or during drilling, then activities at the site will be suspended and Pūlama Lānaʻi and the DLNR State Historic Preservation Division (SHPD) will be contacted immediately for review, evaluation, and recommendations on how to preserve or avoid damage to the resources.

3. Scenic and Open Space Resources

Objective:

Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Policies:

- a. *Identify valued scenic resources in the coastal zone management area;*
- b. *Ensure that new developments are compatible with their visual environment by designing and locating those developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;*
- c. *Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and*
- d. *Encourage those developments that are not coastal dependent to locate in inland areas.*

Response: The proposed project is located inland and not on or near the shoreline. The proposed project is not anticipated to adversely impact coastal scenic and open space resources.

4. **Coastal Ecosystems**

Objective:

Protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes, from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

- a. *Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;*
- b. *Improve the technical basis for natural resource management;*
- c. *Preserve valuable coastal ecosystems of significant biological or economic importance, including reefs, beaches, and dunes;*
- d. *Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and*
- e. *Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.*

Response: The proposed project is located inland, away from coastal ecosystems and is, therefore, not anticipated to have adverse impacts on coastal/shoreline resources, including reefs and marine resources. Appropriate BMPs will be utilized to ensure that construction runoff is appropriately detained, minimizing any impact on coastal waters. In addition, an application for a National Pollutant Discharge Elimination System (NPDES) permit for construction will be submitted to the State Department of Health (DOH) for review and approval prior to the start of construction.

5. Economic Uses

Objective:

Provide public or private facilities and improvements important to the State's economy in suitable locations.

Policies:

- a. *Concentrate coastal dependent development in appropriate areas;*
- b. *Ensure that coastal dependent development and coastal related development are located, designed, and constructed to minimize exposure to coastal hazards and adverse social, visual, and environmental impacts in the coastal zone management area; and*
- c. *Direct the location and expansion of coastal development to areas designated and used for that development and permit reasonable long-term growth at those areas, and permit coastal development outside of designated areas when:*
 - i. *Use of designated locations is not feasible;*
 - ii. *Adverse environmental effects and risks from coastal hazards are minimized; and*
 - iii. *The development is important to the State's economy.*

Response: The proposed project is not a coastal dependent development. The project site is located inland from the shoreline. The proposed project will support economic diversity through the development of industrial and renewable energy projects. The development will also stimulate the economy through the generation of construction jobs. The proposed project does not contravene the objective and policies for economic use.

6. Coastal Hazards

Objective:

Reduce hazard to life and property from coastal hazards.

Policies:

- a. *Develop and communicate adequate information about the risk of coastal hazards;*
- b. *Control development, including planning and zoning control, in areas subject to coastal hazards;*

- c. *Ensure that developments comply with requirements of the National Flood Insurance Program; and*
- d. *Prevent coastal flooding from inland projects.*

Response: According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the area, the project site falls within Zone X (shaded), an area of minimal flooding. In addition, the project site is not located within the projected 3.2-foot sea level rise exposure area or tsunami evacuation zone. Drainage improvements will be designed in accordance with the Drainage Standards of the County of Maui to ensure that the project will not adversely affect downstream properties from the effects of flooding and erosion. Adverse impacts to hazard-sensitive areas are not anticipated.

7. **Managing Development**

Objective:

Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Policies:

- a. *Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;*
- b. *Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and*
- c. *Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.*

Response: Opportunities for agency and public review of the proposed action are provided pursuant to Chapter 343, HRS approval process. A summary of the consultation efforts is provided in Chapter VIII.

8. **Public Participation**

Objective:

Stimulate public awareness, education, and participation in coastal management.

Policies:

- a. *Promote public involvement in coastal zone management processes;*
- b. *Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and*
- c. *Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.*

Response: The project has, and will continue to address public awareness, education, and participation objectives. As noted above, the Applicant has undertaken consultation with government and community stakeholders. Refer to Chapter VIII. Opportunities for agency and public review of the proposed action are also provided through the comment processes pursuant to Chapter 343, HRS.

9. Beach Protection

Objective:

- A. *Protect beaches and coastal dunes for:*
 - (i) *Public use and recreation;*
 - (ii) *The benefit of coastal ecosystem; and*
 - (iii) *Use as natural buffers against coastal hazards; and*
- B. *Coordinate and fund beach management and protection.*

Policies:

- a. *Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;*
- b. *Prohibit construction of private shoreline hardening structures, including seawalls and reventments, at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;*
- c. *Minimize the construction of public shoreline hardening structures, including seawalls and revetments at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;*

- d. *Minimize grading of and damage to coastal dunes;*
- e. *Prohibit private property owners from creating a public nuisance by inducing or cultivating the private property owner's vegetation in a beach transit corridor; and*
- f. *Prohibit private property owners from creating a public nuisance by allowing the private property owner's unmaintained vegetation to interfere or encroach upon a beach transit corridor.*

Response: The project site is located inland, away from the shoreline and is not anticipated to impact shoreline processes.

10. **Marine and Coastal Resources**

Objective:

Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

Policies:

- a. *Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;*
- b. *Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;*
- c. *Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;*
- d. *Promote research, study, and understanding of ocean and coastal processes, impacts of climate change and sea level rise, marine life, and other ocean resources to acquire and inventory information necessary to understand how coastal development activities relate to and impact ocean and coastal resources; and*
- e. *Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.*

Response: The project site is located inland, away from the ocean and is, therefore, not anticipated to have an impact on marine or coastal resources.

**UNAVOIDABLE ADVERSE
ENVIRONMENTAL EFFECTS
AND IRREVERSIBLE AND
IRRETRIEVABLE
COMMITMENTS OF
RESOURCES**

IV

IV. UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

In the short term, the proposed project will result in unavoidable construction-related impacts, including air quality impacts during construction and noise impacts generated by construction equipment and activities. Air quality impacts will be mitigated by following Best Management Practices (BMPs) during construction to minimize air quality impacts to surrounding properties such as dust screens around active construction areas and regular sprinkling of water to reduce dust. In addition, there may be temporary noise impacts associated with construction equipment and vehicles. These noise and air quality impacts will be temporary in nature, occurring only during the construction period, and will be mitigated to the extent practicable through implementation of BMPs.

The proposed project commits 200 acres of land for the construction of the proposed Miki Basin Industrial Park. Other resources which will be committed in the implementation of the proposed action include material and fuel resources. The project will result in short-term beneficial impacts related to temporary construction employment and spending.

In the long term, mitigation measures will be implemented to reduce impacts from the relocated asphalt plant, concrete recycling and rock crushing operation, as well as materials storage and stockpiling of aggregate and construction materials. At the relocated concrete recycling and rock crushing operation, dust control would be handled by use of regular wetting of the crushed concrete and rock, and materials storage areas with a sufficient amount of water to saturate the area without causing runoff.

Cement processed at the concrete recycling and rock crushing operation will also be free of paint or other hazardous coatings or products. If there is rebar embedded in the concrete, it will be broken up onsite, and the rebar removed. The rebar will be shipped off-island for appropriate disposal in a landfill. The size of the rocks collected would be three (3) inches in diameter (across any dimension) or less.

The Applicant will work to minimize noise emissions at the relocated facilities, including the use of all combustion powered equipment and vehicles. Any equipment found to be in poor condition will be repaired or replaced, and mufflers shall be used in accordance with federal and state laws and regulations. Considering the project represents the relocation of existing facilities, significant increases in noise generation are not anticipated. It should be noted that the relocation site was selected, in part, due its close proximity to similar industrial uses, as well as its distance from noise-sensitive areas.

Construction of the industrial park will allow existing industrial facilities currently scattered in business and residential areas in Lānaʻi City to relocate to more appropriate locations having the

infrastructure and buffers necessary for industrial uses. The proposed action also provides opportunities for future industrial development on Lānaʻi, which will add to the diversification of Lānaʻi's economy and, thereby, contribute to the island's resiliency and sustainability.

**ALTERNATIVES TO THE
PROPOSED ACTION**



V. ALTERNATIVES TO THE PROPOSED ACTION

A. PREFERRED ALTERNATIVE

The Miki Basin Industrial Park described in Chapter I represents the preferred alternative for the 200-acre project. The proposed Miki Basin Industrial Park will include 127 acres for renewable energy projects (e.g., photovoltaic plus battery energy storage), 20 acres for infrastructure purposes (10 percent of the project area which will be used for roads, common areas, and other related uses), 12.5 acres for the relocation of an existing asphalt plant, and 26 acres for new industrial uses. The remaining 14.5 acres will be used for the relocation of an existing concrete recycling and rock crushing operation, and for the materials storage and stockpiling of aggregate and construction materials.

Over 85 percent of the project area has been allocated for specific uses. Possible new future industrial uses include a slaughterhouse, warehouse space for cold storage, laboratory/testing facilities, niche product development, automotive services, multi-media facility, animal hospital, and other industrial related uses allowed under “M-1, Light Industrial” and “M-2, Heavy Industrial” zoning.

As a master-planned project, Pūlama Lāna‘i will develop the major common infrastructure, such as roads and electric and water utility lines. Individual uses within the Miki Basin Industrial Park will be responsible for vertical development on their particular properties and for compliance with applicable regulatory requirements associated with their individual developments. Improved lots will be offered for lease.

The preferred alternative is consistent with and will implement the Lāna‘i Community Plan.

B. NO ACTION ALTERNATIVE

Under the “no action” alternative, the project site would remain “as is”. The “no action” alternative is not considered to be in the best interest of Lāna‘i residents as the “no action” alternative would not allow existing industrial facilities currently scattered in business and residential areas to relocate to more appropriate locations having the infrastructure and buffers necessary for industrial uses. This alternative would also inhibit the implementation of the Lāna‘i Community Plan. For these reasons, the No Action Alternative is not being considered.

C. DEFERRED ACTION ALTERNATIVE

A deferral of the proposed action means that the development proposal would be pursued at a later point in time. The deferral alternative is not considered viable from a project implementation standpoint. The Applicant’s commitment to planning, design, and construction of the Miki Basin Industrial Park allows for the project to proceed at this time.

Delays in project implementation will likely result in higher development costs and greater uncertainty. The Applicant believes that the project can be viably developed under current market and financing conditions. With this in mind, the “deferred action alternative” is not considered appropriate.

D. SITE PLAN ALTERNATIVES

Various site plan alternatives have been considered for the Miki Basin Industrial Park. As previously noted, a Draft Environmental Assessment (EA) was previously published for the Miki Basin Industrial Park on November 23, 2019. The proposed action contemplated in the November 2019 Draft EA was 100 acres of light industrial uses and 100 acres of heavy industrial uses. Since that time, additional planning has led to the refinement of the uses within the Miki Basin Industrial Park. The Preferred Alternative identifies specific uses that will occupy the Miki Basin Industrial Park, including renewable energy projects and a mix of relocated and new industrial uses.

**SIGNIFICANCE CRITERIA
ASSESSMENT**

VI

VI. SIGNIFICANCE CRITERIA ASSESSMENT

The proposed project involves the development of the Miki Basin Industrial Park, a 200-acre master-planned light and heavy industrial development, on land adjoining the Lānaʻi Airport, the Maui Electric Company (MECO) 5-acre power plant, and the existing 20-acre Miki Basin Industrial Condominium.

Pursuant to Chapter 343, Hawaiʻi Revised Statutes (HRS), and Chapter 200.1 (Title 11), Environmental Impact Statement Rules, Hawaiʻi Administrative Rules (HAR), the proposed action, its expected primary and secondary consequences, and the cumulative as well as the short-term and long-term effects of the action have been evaluated in accordance with the Significance Criteria of Section 11-200.1-13 of the Administrative Rules. Discussion of project conformance to the Significance Criteria is as follows:

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

There are no known rare, threatened, or endangered species of flora, fauna, avifauna, or important habitats located within the project site. As noted earlier, an Archaeological Inventory Survey (AIS) has been accepted by SHPD on the project area and two (2) historic sites were evaluated as significant. Refer to **Appendix “D-1”**.

In addition, mitigation measures include preparation and implementation of an Archaeological Data Recovery Plan and Archaeological Data Recovery Report prior to construction activities. Refer to **Appendix “D-3”**. These measures will mitigate potentially adverse effects of the industrial development in accordance with the rules of the State Historic Preservation Division (SHPD) to ensure that if human skeletal remains are identified during subsurface work, that the protocol concerning the inadvertent discovery of human remains pursuant to the HAR is followed. Subsequent to mitigation, the project will have a less than significant impact. A Ka Paʻakai Analysis and Determination conducted for the project determined that the availability and accessibility of cultural resources in the region will not be significantly impacted. Refer to **Appendix “D-4”**.

The proposed project is not anticipated to involve an irrevocable commitment to loss or destruction of any natural or cultural resource.

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

The entire project area has lain fallow from agricultural use for over 30 years, with some grazing occurring during a few of these years. The vegetation is a dense growth of grasses and shrubs. The land is characterized as having a low productivity rating of “D” for agriculture by the Land Study Bureau (LSB) soils rating system.

There are no significant adverse impacts to climate, topography, or soils anticipated to result from the proposed project. There are also no known rare, threatened, or endangered species of flora, fauna, or avifauna located within the project site. Refer to **Appendix “C”**.

The proposed project will relocate existing industrial facilities to a more appropriate community-planned location, and the commitment of land resources for the proposed action will not curtail the range of beneficial uses of the environment.

The proposed project will not detract from the island’s inventory of agricultural lands and will not present any adverse effects on agricultural production.

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

The proposed project involves the development of the Miki Basin Industrial Park, a 200-acre master-planned light and heavy industrial development. The proposed project does not conflict with the State’s Environmental Policy and Guidelines as set forth in Chapter 344, HRS.

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

The proposed project will have a positive short-term effect on economic and social welfare by providing construction and construction-related employment. From a long-term perspective, the proposed project will allow existing industrial facilities currently scattered in business and residential areas in Lāna’i City to relocate to more appropriate locations having the infrastructure and buffers necessary for industrial uses. The proposed action also provides opportunities for future industrial development on Lāna’i, including 127 acres for renewable energy projects, which will add to the diversification of Lāna’i’s economy and contribute to the island’s resiliency and sustainability.

As mentioned earlier, a Ka Pa’akai Analysis and Determination conducted for the project determined that the availability and accessibility of cultural resources in the region will not be significantly impacted. No substantial adverse long-term economic or social welfare impacts to the community, County, or State are anticipated.

5. Have a substantial adverse effect on public health.

A temporary increase in noise during construction is anticipated; however, this impact will be a minor, short-term inconvenience and will be minimized by the limitations on the hours of construction activity. A temporary increase in dust and debris also is anticipated to affect the air quality within the immediate vicinity of the project area.

From a long-term perspective, industrial uses at the Miki Basin Industrial Park will be required to comply with government regulations pertaining to air quality, noise, solid and

liquid waste, drainage, and other impacts. As appropriate, mitigation measures and Best Management Practices (BMPs) will be implemented for specific uses within the project. For example, dust control measures will be implemented at the concrete recycling and rock crushing operation and proper equipment maintenance will be utilized to minimize noise impacts.

As noted in various drafts of the Lānaʻi Community Plan, the island's primary industrial areas are located southwest of Lānaʻi City, near the Lānaʻi Airport, and at Kaumālapaʻu Harbor. These are purposefully placed to be removed from residential and other uses that may be negatively impacted by industrial uses.

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

The proposed project involves the development of the Miki Basin Industrial Park, a 200-acre master-planned light and heavy industrial development. As a master-planned project, Pūlama Lānaʻi will develop the major common infrastructure, such as roads and electric and water utility lines.

The project is not anticipated to involve substantial secondary impacts due to population change. Secondary impacts on public facilities are also not anticipated. The Applicant will provide the necessary onsite and offsite infrastructure to support the proposed project. No substantial changes or effects on public facilities are expected with project implementation.

As such, the project is not anticipated to result in significant adverse secondary impacts. The proposed infrastructure improvements are not anticipated to significantly adversely impact public facilities or services.

7. Involve a substantial degradation of environmental quality.

No substantial degradation of environmental quality resulting from the action is anticipated. BMPs and appropriate erosion control measures will be utilized during the construction period. Drainage system improvements will be constructed in accordance with applicable regulatory design standards to ensure that surface runoff will not have an adverse effect on adjacent or downstream properties. Any potential short-term impacts to air and noise quality during the construction phase of the project will be mitigated through employing BMPs. In the long term, the project will not adversely impact air quality and ambient noise.

From a long-term perspective, activities which may have air or noise quality impacts will be regulated by the State Department of Health (DOH). As previously noted, 127 acres of the Miki Basin Industrial Park will be utilized for renewable energy projects (photovoltaic plus battery storage), which will not generate adverse air quality impacts. Other future

uses include the relocation of existing facilities, which are not anticipated to represent new air or noise quality impacts on Lānaʻi.

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

The Miki Basin Industrial Park site is well-suited for industrial development. It is adjacent to the most significant industrial uses on Lānaʻi, the Lānaʻi Airport, the Miki Basin Industrial Condominium, and Maui Electric Company's (MECO) generating facility. Development of the 200-acre industrial park will allow existing industrial facilities currently scattered in business and residential areas in Lānaʻi City to relocate to more appropriate locations having the infrastructure and buffers necessary for industrial uses. The project will also provide opportunities for future industrial development on Lānaʻi, which will add to the diversification of Lānaʻi's economy. The project does not represent a commitment to larger actions and no significant adverse cumulative impacts are anticipated.

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

Rare, threatened or endangered species of flora, fauna, avifauna or their habitats are not expected to be adversely affected by the proposed project as none were identified in the biological resources survey conducted for the project. Refer to **Appendix "C"**.

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

Construction activities will result in short-term air quality and noise impacts. BMPs for dust control measures, such as temporary diversion channels and retention basin, regular watering and sprinkling, and erection of dust screens will be implemented to minimize construction-related air quality impacts, as warranted. Equipment mufflers or other noise attenuating equipment, as well as proper equipment and vehicle maintenance and other BMPs are anticipated to mitigate noise from construction activities. Erosion control measures implemented during construction will reduce the amount of silt and stormwater runoff flowing downstream.

As mentioned previously, activities which may have air or noise quality impacts will be regulated by the DOH. At the concrete recycling and rock crushing operation, the Applicant will store and transport loose aggregates and materials in a manner that will minimize particulate emissions into the air. Depending on the prevailing weather conditions and the nature of the materials being stored or stockpiled, the aggregates and rock materials may be covered or periodically sprayed with water to minimize the generation of dust.

The Applicant will work to minimize noise emissions, including the use of all combustion powered equipment and vehicles. Any equipment found to be in poor condition will be repaired or replaced, and mufflers shall be used in accordance with federal and state laws

and regulations. It should be noted that the relocation site was selected, in part, due its close proximity to similar industrial uses, as well as its distance from noise-sensitive areas.

The Miki Basin Industrial Park will also utilize 127 acres for renewable energy projects (photovoltaic plus battery storage), which will not generate adverse air quality impacts. While specific uses for the 26 acres of new industrial space have not been solidified, many of the the potential uses contemplated, such as warehouses and testing facilities, do not represent noxious uses that would be a source of air pollution. It is noted that before any air pollution sources can be built an application must be filed with the DOH with detailed information on such sources.

11. **Have a substantial adverse effect on or is 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 project site is situated inland and is not anticipated to have any adverse impact upon coastal waters or resources, beaches, estuaries, or other fresh water bodies.

According to the Federal Emergency Management Agency's Flood Insurance Rate Maps currently in effect, the project site falls within Zone X (unshaded), an area of minimal flooding. The project site is located outside of the tsunami inundation zone. In addition, the project site is located outside of the 3.2-foot projected 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 is low-profile and is not located within a scenic view corridor. Impacts to visual and aesthetic resources will be mitigated through the project's layout and design. As such, the proposed project is not anticipated to adversely affect scenic view corridors.

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

Pūlama Lāna'i will ensure that the industrial park incorporates, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship.

The proposed project will include 127 acres for renewable energy projects, including photovoltaic equipment with battery energy storage. These renewable energy projects will offset fossil fuels currently used by MECO.

Based on the aforementioned findings, the State of Hawai'i, Land Use Commission has determined that the proposed project will result in a Finding of No Significant Impact (FONSI).

**LIST OF PERMITS AND
APPROVALS**

VII

VII. LIST OF PERMITS AND APPROVALS

The following permits and approvals will be required prior to the implementation of the project:

State of Hawai'i

1. Chapter 343 Hawai'i Revised Statutes, Environmental Assessment
2. Land Use District Boundary Amendment Approval (Land Use Commission)
3. National Pollutant Discharge Elimination System (NPDES), as applicable
4. Community Noise Permit, as applicable
5. Permit to Perform Work Upon State Highways, as applicable
6. Permit to Operate or Transport Oversize and/or Overweight Vehicles and Loads Over State Highways, as applicable

County of Maui

1. Maui County Code, Title 19, Change of Zoning (CIZ)
2. County Special Use Permit (asphalt plant and rock crushing operation) and/or other Title 19 approvals, as applicable
3. Construction Permits (Grading, Building, Electrical, and Plumbing)

**PARTIES CONSULTED
DURING THE
PREPARATION OF THE
DRAFT ENVIRONMENTAL
ASSESSMENT; LETTERS
RECEIVED AND
RESPONSES TO
SUBSTANTIVE
COMMENTS**

VIII

VIII. PARTIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

During the Lānaʻi Community Plan process, the proposed 200-acre Industrial land was publicly discussed at ten (10) Lānaʻi Community Plan Advisory Council meetings, four (4) Lānaʻi Planning Commission meetings, and three (3) Maui County Council meetings as part of an update to the Lānaʻi Community Plan. A public community meeting was also held on Lānaʻi on October 22, 2018. The project was explained, and questions were asked and answered.

As previously noted, a Draft Environmental Assessment (EA) for the Miki Basin Industrial Park was previously published on November 23, 2019. Because additional detail has become available on the proposed action and technical studies have been updated, a 2nd Draft EA was published. Consultation conducted during the preparation of the November 23, 2019 Draft EA and comments received on that previously published Draft EA informed the preparation of the 2nd Draft EA. Copies of letters received and responses to substantive comments are provided herein.

A. PRECONSULTATION COMMENTS RECEIVED PRIOR TO THE PUBLICATION OF THE NOVEMBER 23, 2019 DRAFT EA AND RESPONSES PROVIDED

On November 9, 2018 pre-assessment consultation and scoping letters were emailed and/or mailed to:

Federal

1. U.S. Department of the Interior, Fish & Wildlife Service

State of Hawai'i

2. Department of Business, Economic Development & Tourism - Office of Planning
3. Department of Health – OEQC
4. Department of Land & Natural Resources
5. State Land Use Commission
6. Department of Transportation
7. Office of Hawaiian Affairs

8. Lāna'i Public and School Library
Statewide Regional Libraries

County of Maui

9. Department of Fire and Public Safety
10. Office of Economic Development
11. Department of Environmental Management
12. Department of Planning
13. Department of Public Works
14. Department of Transportation
15. Department of Water Supply
16. Police Department

B. NOVEMBER 23, 2019 DRAFT EA COMMENTS AND RESPONSES

Copies of the November 23, 2019 Draft EA were sent to the following entities

Federal

1. U.S. Department of the Interior, Fish & Wildlife Service

State of Hawai'i

2. Department of Business, Economic Development & Tourism - Office of Planning
3. Department of Health – Environmental Health Administration
4. Department of Health – OEQC
5. Department of Land & Natural Resources
6. Department of Transportation
7. Office of Hawaiian Affairs
8. Lāna'i Public and School Library

9. Statewide Regional Libraries

County of Maui

10. Department of Fire and Public Safety
11. Department of Environmental Management
12. Department of Housing and Human Concerns
13. Department of Parks and Recreation
14. Department of Planning
15. Department of Public Works
16. Department of Transportation
17. Department of Water Supply
18. Police Department

Copies of comment letters and responses provided are included herein.

**Preconsultation Comments Received
Prior to the Publication of the
November 23, 2019
Draft EA and Responses Provided**

DAVID Y. IGE
Governor

DOUGLAS S. CHIN
Lieutenant Governor

LUIS P. SALAVERIA
Director

MARY ALICE EVANS
Deputy Director



LAND USE COMMISSION
Department of Business, Economic Development & Tourism
State of Hawai'i

DANIEL E. ORODENKER
Executive Officer

BERT SARUWATARI
Planner

SCOTT A.K. DERRICKSON AICP
Planner

RASMI AGRAHARI
Planner

RILEY K. HAKODA
Planner/Chief Clerk

FRED A. TALON
Drafting Technician

November 19, 2018

SSFM International, Inc.
RECEIVED
11-26-2018

Jennifer Scheffel, Senior Environmental Planner
SSFM International Inc.
99 Aupuni Street, Suite 202
Hilo, Hawai'i 96720

Subject: Pūlama Lāna'i Miki Basin 200-acre Industrial Area
Island of Lāna'i
Tax Map Key No.: (2) 4-9-002: 061 (portion)
Pre-Assessment Consultation for Draft Environmental Assessment

Dear Ms. Scheffel:

The Commission has received your letter requesting comments on your pre-assessment Draft Environmental Assessment (DEA) on November 13, 2018. We have the following comments:

The proposed action identifies two steps to be taken: a reclassification of 200 acres by the LUC and then rezoning by the Lāna'i Planning Commission and Maui County Council. However, there is also discussion of a 20-acre proposed Heavy Industrial condominium project. Please clarify whether this additional 20 acres would be part of the reclassification request.

SSFM is indicating that an Environmental Assessment (EA) will be done rather than a Environmental Impact Statement (EIS) to satisfy requirements of Hawai'i Revised Statutes (HRS) Chapter 343. Please provide a discussion on what issues are triggers for HRS Chapter 343 compliance and the rationale for making this early decision to conduct an EA rather than an EIS.

SSFM should indicate which government entity would be the accepting authority for HRS Chapter 343 compliance and the rationale for that choice.

A prior docket, A89-649 Mānele Golf Course, required under Condition 1, that Petitioner convey 25 acres of lands to the State of Hawai'i: a proposed 15-acre industrial parcel and a proposed

10-acre commercial parcel. The assessment should discuss the location of these lands with respect to the proposed district boundary amendment; including whether these lands have been conveyed to the State and how any proposed projects on those lands will interact with Pūlama Lāna'i's proposed development.

Thank you for the opportunity to comment on the subject application. Should you have any questions, please feel free to contact me or Scott Derrickson, AICP of our office at 587-3921.

Sincerely,

Daniel E. Orodener
Executive Officer

cc: Leo Asuncion, State Office of Planning
Michelle Choteau McLean, Maui County Planning
Caron Green, Chair Lāna'i Planning Commission

Ho'okuleana LLC
... to take responsibility ...

Peter T. Young
1539 Kanapu'u Drive
Kailua, Hawai'i 96734
(808) 226-3567 (Cell Phone)
PeterYoung@Hookuleana.com
www.Hookuleana.com



Land Use Commission
235 South Beretania Street, Suite 406
Honolulu, HI 96813

April 19, 2019

Sent only via e-mail to scott.a.derrickson@hawaii.gov

Re: Miki Basin Industrial Park, Lāna'i - Draft Environmental Assessment

Gentlemen:

Thank you for your response to our Pre-Assessment Consultation and Scoping request for the above referenced project (SSFM initially sent the pre-assessment request, I will be preparing the EA).

We acknowledge your comments concerning issues to be included in the Environmental Assessment. Under separate correspondence, we provided information on an unrelated issue concerning 25-acres that were part of a prior LUC action; information on this unrelated 25-acres will not be in the Miki Basin EA.

A draft Environmental Assessment is being prepared and we will be sending you a copy for your review.

Thanks,
HO'OKULEANA LLC



Peter T Young
President

Do well by doing good.



**OFFICE OF PLANNING
STATE OF HAWAII**

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846
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Web: <http://planning.hawaii.gov/>

DAVID Y. IGE
GOVERNOR

LEO R. ASUNCION
DIRECTOR
OFFICE OF PLANNING

DTS201811291657NA

November 30, 2018

Ms. Jennifer M. Scheffel
Senior Environmental Planner
SSFM International, Inc.
99 Aupuni Street, Suite 202
Hilo, Hawaii 96720

SSFM International, Inc.
RECEIVED

12-17-2018

Dear Ms. Scheffel:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment,
Pulama Lanai Miki Basin 200-Acre Industrial Area, Island of Lanai
TMK: (2) 4-9-002: 061 (por)

Thank you for the opportunity to provide comments on the pre-assessment consultation request for the preparation of a Draft Environmental Assessment (Draft EA) on the proposed reclassification and rezoning of land from Agricultural to Urban/Light and Heavy Industrial, on the Island of Lanai.

It is our understanding that Lanai Resorts, LLC, (dba Pulama Lanai) proposes to designate 200 acres of land around the existing Maui Electric Company facility and adjacent to the Lanai Airport as Light and Heavy Industrial Zoning. The site is undeveloped land currently designated as Agriculture for both the State and the County. Pulama Lanai will be requesting the State Land Use Commission (LUC) to reclassify the 200 acres from Agricultural to Urban. The Draft EA is being prepared to support Pulama Lanai's application for reclassification. Subsequently, Pulama Lanai will request the Lanai Planning Commission and Maui County Council to rezone the land to 100 acres of Light Industrial and 100 acres of Heavy Industrial.

The Office of Planning (OP) has reviewed the transmitted material and has the following comments to offer:

1. LUC District Boundary Amendment Issues of Concern
Pulama Lanai will be requesting the LUC to reclassify 200 acres of land from the Agricultural District to the Urban District. OP represents the State as a mandatory party in proceedings before the LUC. In developing its position, OP will be evaluating whether the project meets the LUC decision-making criteria in HRS § 205-17, as well as its conformance with Coastal Zone Management objectives and policies in HRS § 205A-2.

Attached for your consideration is a document entitled "Issues of Concern in District Boundary Amendment Proceedings Based on LUC Decision-Making Criteria." The

Ms. Jennifer M. Scheffel
November 30, 2018
Page 2

DEA should address relevant issues and concerns, particularly the areas of State concern and best practices that could or will be incorporated in the proposed project to address State priority guidelines for sustainability. A short list of resources related to best practices can be found at the OP website at http://hawaii.gov/dbedt/op/land_use.htm.

We also recommend that Pulama Lanai consult with affected State agencies early in the project formulation process; and that they continue to do so in the preparation of the DEA so potential impacts to resources, facilities, and services managed or provided by the State and appropriate mitigation measures are identified in the DEA and subsequent petition.

2. Hawaii State Land Use Approvals

Pulama Lanai states that the subject parcels are adjacent to the Lanai Airport. Also attached for your consideration is OP Technical Assistance Memorandum TAM-2016-1, issued August 1, 2016, which describes various Department of Transportation, Airports Division and Federal Aviation Administration concerns regarding projects near State airports.

3. Hawaii State Planning Act

Hawaii Administrative Rules (HAR) § 11-200-10(4) requires an Environmental Assessment to provide a general description of the action's technical, economic, social, and environmental characteristics.

In this regard, the Draft EA should provide a discussion on the project and its ability to meet State goals and priorities as detailed in HRS Chapter 226. The analysis on the Hawaii State Planning Act should examine the project's consistency with all three parts of HRS Chapter 226 or clarify where the project conflicts with them. If any of these statutes are not applicable to the project, the analysis should affirmatively state such determination, along with discussion paragraphs.

4. Hawaii Coastal Zone Management Program

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 U.S. territorial sea" (HRS § 205A-1).

The proposed action should conform with all the objectives and supporting policies of the Hawaii CZM program, as listed in HRS § 205A-2. Pursuant to HRS § 205A-4, in implementing the objectives of the CZM program, agencies shall give full consideration to ecological, cultural, historic, esthetic, recreational, scenic, open space values, coastal hazards, and economic development. As this project will require the approval of government agencies, the Draft EA should contain analysis on the project's consistency

Ms. Jennifer M. Scheffel
November 30, 2018
Page 3

with HRS § 205A-2.

5. Drainage / Stormwater Runoff Mitigation / Erosion Control

Pursuant to HAR § 11-200-10(6) – identification and summary of impacts and alternatives considered; in order to ensure that the surface water and marine resources of the Island of Lanai remain protected, the effects of stormwater inundation, resulting from the proposed land use changes and ultimately future development activities should be evaluated in the Draft EA.

Issues that may be examined include, but are not limited to, project site characteristics in relation to flood and erosion prone areas, open spaces, the potential vulnerability of surface water resources, drainage infrastructure currently in place, soil absorption characteristics of the area, and examining the amount of permeable versus impervious surfaces in the project area. These items should be considered when developing mitigation measures for the protection for surface water resources and the coastal ecosystem, pursuant to HAR § 11-200-10(7).

If you have any questions regarding this comment letter, please contact Aaron Setogawa of our Land Use Division at (808) 587-2883 or Joshua Hekekoa of our CZM Program at (808) 587-2845.

Sincerely,



Leo R. Asuncion
Director

Enclosure

**Issues of Concern in District Boundary Amendment Proceedings
Based on LUC Decision-Making Criteria**

The following issues are commonly discussed and analyzed for project proposals in petitions and their supporting environmental assessments (EAs) or environmental impact statements (EISs) prepared pursuant to Hawaii Revised Statutes (HRS) Chapter 343. This list reflects the range of issues the State Land Use Commission (LUC) must take into consideration in its decision-making under HRS Chapter 205, and Hawaii Administrative Rules (HAR) Chapter 15-15. This list is not exhaustive or complete.

1. **Water Resources.** Groundwater and surface water resource protection and water quality are critical State issues. A thorough evaluation of these resources includes identifying and discussing: (a) estimated water demand by types of land use; (b) proposed potable and non-potable water sources to be used for the project and measures to reduce water demand and promote water reuse in the project; (c) whether the proposed project is within a designated Water Management Area; (d) the impact of the project on the sustainable yield and water quality of affected aquifers and surface water sources; (e) permits or other approvals required for proposed water source use; and (f) the consistency of the project and impact of the project in terms of proposed water use and system improvements and priorities contained in the county water use and development plan, prepared pursuant to the State Water Code, HRS Chapter 174C.
2. **Agricultural Lands.** Article XI, Section 3, of the Hawaii State Constitution provides that “[t]he State shall conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency, and assure the availability of agriculturally suitable lands.” Protecting agriculture is a policy objective in the Hawaii State Plan, HRS Chapter 226, and in the State Administration’s New Day Comprehensive Plan, which is available at <http://hawaii.gov/gov/about/a-new-day>. Agricultural activity in the vicinity of the proposed project should be identified, and the impact of urban use or conversion of project lands on existing and future agricultural use and the viability of agricultural use of adjoining agricultural lands needs to be examined. Please discuss how the proposed project meets policy objectives to promote and protect agriculture, particularly in cases where the lands have high agricultural value.
3. **Affordable Housing.** Increasing the supply of affordable housing is a critical State and county issue. Every county has an affordable housing policy and both the Hawaii State Plan, HRS Chapter 226, and the State Administration’s New Day Comprehensive Plan identify affordable housing as a policy priority. If applicable, please discuss specifically how the proposed project will meet State and county affordable housing policy objectives, to include a discussion of how the project’s proposed residential product types will be allocated among the market and various affordable housing target populations, and the expected price ranges for the different product types.
4. **Coastal Zone Management (CZM).** The Office of Planning is the lead agency for the Hawaii CZM Program, which is a Federal-State partnership for protecting, restoring, and responsibly developing coastal communities and resources. The coastal zone 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 (HRS § 205A-1). EA/EISs should reference this definition of the coastal zone. State agency actions must be consistent with the CZM program objectives and policies under HRS § 205A-2. The EA/EIS needs to discuss the project in terms of its consistency with the following CZM objective areas.
 - a. **Coastal and Ocean Resources.** The State has an interest in protecting coastal and marine ecosystems and resources, as well as coastal and marine water quality. The EA/EIS should identify any coastal and marine resources and ecosystems that may be impacted by the proposed project, and the potential for nonpoint sources of pollution from the project to adversely affect coastal and marine water quality. Project impacts on existing site and offsite hydrology and measures to manage stormwater and runoff need to be discussed. The Office of Planning recommends the use of low impact development (LID) techniques and other best

management practices (BMPs) that promote onsite infiltration and minimize runoff from storm events. More information on LID and stormwater BMPs can be found at <http://hawaii.gov/dbedt/czm/initiative/lid.php>.

- b. **Coastal and Other Hazards.** The EA/EIS should describe any hazard risks that are relevant to the site and describe the measures that are proposed to mitigate any hazard impacts, such as from tsunamis, hurricane, wind, storm wave, sea level rise, flood, erosion, volcanic activity, earthquake, landslide, subsidence, and point and nonpoint source pollution. This should include a discussion of any wildfire hazard and any mitigation measures that might be required to address potential threats from wildfires.

The EA/EIS process also provides an opportunity to address the sustainability of proposed projects in terms of natural hazards and hazard mitigation, and the potential impact of climate change on the proposed project over time. To this end, OP recommends the final EA/EIS include a discussion of the proposed project with respect to the *State Multi-Hazard Mitigation Plan, 2010 Update*, adopted in September 2010, available at <http://www.scd.hawaii.gov/documents/HawaiiMultiHazardMitigationPlan2010PUBLIC.pdf>, as well as the respective County Hazard Mitigation Plan.

- c. **Coastal-dependent Uses and Beach Protection.** If the project is located on or near the coast, the EA/EIS should discuss why the proposed development needs to be located on the coast, the economic uses that will be of benefit to the State, as well as potential impacts on beach access. The discussion should identify measures to protect beach systems and ensure short- and long-term public access to beaches.
- d. **Coastal Recreational Resources.** If the project is located on the coast, the EA/EIS should include a description of recreational uses and facilities on or near the project site, and discuss how the impact of increasing users on coastal and ocean recreational resources and competing uses will be mitigated and managed during project development and buildout.
- e. **Scenic Resources.** The EA/EIS should discuss the impact of the proposed project on scenic views to and from the coast and along the coast and coastal open space, and how any impacts on these scenic and open space resources will be avoided, minimized, or mitigated.
- f. **Special Management Area (SMA) Permitting.** The SMA is defined by the counties and includes areas in the coastal zone that are particularly sensitive so that it requires special attention. Please identify whether the proposed project is within the SMA and how SMA permitting requirements pursuant to HRS Chapter 205A, will be satisfied.

For additional resources and information, visit <http://hawaii.gov/dbedt/czm>.

5. **Cultural, Archaeological, and Historic Resources.** Another CZM objective is to protect, preserve, and where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone that are significant in Hawaiian and American history and culture. If archaeological or historic properties or artifacts, including native Hawaiian burials, are identified in an archaeological inventory survey on the property, the EA/EIS should discuss how the petitioner has consulted with the State Historic Preservation Division (SHPD), what plans will be prepared to monitor or protect identified resources, and how the petitioner intends to comply with HRS Chapter 6E, related to historic preservation, and the CZM objective and policies for historic resources contained in HRS §§ 205A-2(b) and (c). SHPD has information and guidance available at <http://hawaii.gov/dlnr/hpd/hpgrtg.htm>.

The EA/EIS document should identify any cultural resources and cultural practices associated with the property, including visual landmarks, if applicable, and discuss the impact of the proposed project on identified cultural resources and practices as well as proposed mitigation measures. The LUC is obligated under Article XII, Section 7 of the Hawaii State Constitution to protect the

reasonable exercise of customarily and traditionally exercised native Hawaiian rights. In order to fulfill its duty to preserve and protect customary and traditional native Hawaiian rights to the extent feasible, pursuant to the Hawai'i Supreme Court's holding in *Ka Pa'akai O Ka'Aina v. Land Use Commission, State of Hawaii*, specific findings are required as to the following:

- a. The identify and scope of "valued cultural, historical, or natural resources in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area;
- b. The extent to which those resources – including traditional and customary native Hawaiian rights – will be affected or impaired by the proposed action; and
- c. The feasible action, if any, to be taken by the petitioner to reasonably protect native Hawaiian rights if they are found to exist.

The State Office of Environmental Quality Control (OEQC) provides guidance for preparing a cultural assessment at <http://oeqc.doh.hawaii.gov>, at "Environmental Assessment PrepKit." (http://oeqc.doh.hawaii.gov/Shared%20Documents/Preparation_of_Hawaii_Environmental_Policy_Act_Documents/Guidance_on_Cultural_Impact/1997%20Cultural%20Impacts%20Guidance.pdf)

5. **Biota.** The EA/EIS should include an inventory and assessment of flora and fauna, including invertebrates, found on or in proximity to the project site and in any lava tubes and caves on the property that are listed on the federal or State list of endangered or threatened species. Please also discuss species of concern and candidates for listing. The petitioner should consult with the Database Manager at the Hawaii Biodiversity and Mapping Program, Center for Conservation Research and Training, University of Hawaii, (808) 956-8094, as to the potential for the presence of rare species in the project area. The EA/EIS should discuss measures to be taken to protect rare, threatened, or endangered species or ecosystems of concern as required by law. The design of the biological survey should consider both wet and dry season observations to capture the fullest range of flora and fauna.
6. **Wastewater Treatment and Disposal.** The EA/EIS needs to identify the anticipated volume of wastewater to be generated by type of user, as well as the proposed means of wastewater treatment and disposal. A discussion of the availability of county wastewater collection and treatment capacity and its existing service levels, design capacity, and allocated capacity is also needed. The EA/EIS should also identify whether any facility improvements would be required to accommodate additional wastewater generated within the service area, including the proposed project. If a private wastewater treatment system is identified as the preferred option, the EA/EIS should discuss the type of plant to be used, permitting requirements, plans for reuse and/or disposal of treated effluent and waste solids, and how the private system will be operated and maintained.
7. **Energy Use and Impacts.** The State Hawai'i Clean Energy Initiative has adopted a goal of using efficiency and renewable energy resources to meet 70 percent of Hawaii's energy demand by 2030, with 30 percent from efficiency measures and 40 percent from locally-generated renewable sources. The EA/EIS should quantify the projected energy requirements of the project and discuss measures to be taken to reduce energy demand, promote energy efficiency, and to promote use of alternative, renewable energy sources. Please discuss how energy efficiency and energy demand reduction, including reduced transportation energy use will be incorporated in the design of the project and identify the kinds of green building and sustainable design practices that could be used to promote energy and resource conservation in the proposed project. Please also identify any generating or transmission capacity constraints that may arise as a result of the proposed project and other projects planned for the region.

8. **Impact on State Facilities and Resources.** The EA/EIS should quantify the impacts of the proposed project on State-funded facilities, including schools, highways, harbors, and airports, and discuss these impacts in terms of existing and planned capacity of the impacted facilities. The EA/EIS should cite the mitigation measures proposed to be used in the development of the project and describe efforts to address identified State agency concerns. Regarding transportation impacts, consider project design options that limit the need to drive, including mixed land uses, compact site design, walkable neighborhoods, and providing a variety of transportation choices (e.g., biking, public transit, etc.).
9. **Conservation District.** If the proposed project is within the State Conservation District, the EA/EIS should provide an inventory of conservation resources, and discuss how the loss of these resources (habitat, watershed area, etc.) will impact the public.
10. **Conformance with County Plan Designations and Urban Growth or Rural Community Boundaries.** Act 26, Session Laws of Hawaii (SLH) 2008, reaffirmed the Land Use Commission's duty to consider any proposed reclassification with respect to the counties' adopted general, community, or development plans. If the proposed project is not consistent with the county plans or lies outside a county urban growth or rural community boundary, the EA/EIS should provide an analysis and discussion of the following:
 - a. **Alternative Sites Considered.** Describe and discuss alternative sites that were considered for the project, and discuss why the project could not be accommodated on lands within the urban growth or rural community boundary, if the county plan delineates such boundaries, or on land already designated by the county for similar uses.
 - b. **Impact on Surrounding Lands.** Discuss what the impacts of changing the county plan designation or extending the urban growth or rural community boundary would have on the surrounding lands.
 - c. **Significant Public Benefit.** Discuss what, if any, public benefits are provided by the proposed project above that already required under existing approval and permitting requirements.
 - d. **Plan Amendment.** Provide a timeframe for application for and approval of any required plan amendment.
11. **Environmental Health Hazards.** The EA/EIS should discuss the potential for the project or project users to generate hazardous materials or release possible contaminants to the air, soil, or water, as well as measures to be taken to ensure that environmental and public health and safety will be protected during construction and after buildout. The EA/EIS should also identify and discuss any potential health and environmental threats that may be present due to site-specific contamination from past or current use. If contaminants of concern are identified for the project site, OP recommends that the petitioner consult with the State Department of Health's Hazard Evaluation and Emergency Response Office as to measures to be taken to address possible or actual contamination at the site.
12. **Solid Waste Management.** The EA/EIS should quantify the volume of solid waste likely to be generated by the project by types of users, and describe the impact the project will have on the county's existing and planned capacity for managing solid waste as represented in the county's solid waste management plan. The EA/EIS should discuss specific mitigation measures to be taken to reduce solid waste generation and ensure that recycling and reuse are incorporated within the project area by residential, commercial, and institutional users.
13. **Sustainability Analysis.** OP is implementing the sustainability elements of the State Administration's New Day Comprehensive Plan and Act 181, SLH 2011 (the new sustainability priority guideline of the Hawai'i State Planning Act) by requesting petitioners to prepare

sustainability plans for their projects in district boundary amendment proceedings before the LUC. LUC Dockets A06-771, DR Horton-Schuler Homes (Hoopili) and A11-793, Castle & Cooke Homes (Koa Ridge Makai/Castle & Cooke Waiawa) provide a good point of reference for sustainability plans. The Koa Ridge Sustainability Plan and Hoopili Sustainability Plan can be found on the LUC's web site under each respective docket's exhibits.

To address the principles and priority guidelines for sustainability, OP recommends that a sustainability plan or relevant elements thereof be incorporated as part of program and plan development. The sustainability plan should be included as part of the applicant's submission for development review and approval, including environmental assessments or in petitions for district boundary amendment to the State Land Use Commission submitted pursuant to HRS Chapter 205. See Technical Assistance Memorandum 2013-1 in Planner's Toolbox available online at <http://planning.hawaii.gov>. The sustainability plan should address the following areas:

- a. **Sustainable Development** - the development's contribution to creating a high quality of life and mutual supportive role among environmental, economic, and social equity concerns, as enumerated in HRS §226-108.
- b. **Smart Growth and Livability Principles** - the principles that promote safety and options with transportation choices, the promotion of energy-efficient, equitable and affordable housing choices, the enhancement of economic competitiveness and support to the existing communities.
- c. **Resource Conservation** - incorporation of energy and water efficiencies, including the implementation of solid or liquid waste management through methods of recycle and reuse, low impact development with respect to site design considerations and structural best management practices to increase on-site infiltration and reduce off-site flows and pollution from stormwater runoff, and climate change and hazard mitigation and adaptation strategies.
- d. **Green Building Standards** - the planned use of green building and sustainable design practices.

14. **Development Timetable.** The LUC requires that projects seeking reclassification be substantially completed within ten years or seek incremental approvals, pursuant to HAR § 15-15-50. The EA/EIS and/or petitioner should provide a schedule of development for each phase of the total project and a map showing the location and timing of each phase or increment of development. Regarding infrastructure (e.g., highway improvements), the petitioner should discuss how improvements will be completed to ensure that mitigation coincides with the impact created by the proposed project.

STATE OF HAWAII OFFICE OF PLANNING
TECHNICAL ASSISTANCE MEMORANDUM

TAM – 2016 – 1

ISSUED: 08-01-2016

AUTHORITIES: State Planning, Hawaii Revised Statutes (HRS) Chapter 225M; Hawaii State Planning Act, HRS Chapter 226; Hawaii Land Use Law, HRS Chapter 205; Aeronautics, HRS Chapter 261; Airport Zoning Act, HRS Chapter 262

SUBJECT: Federal Aviation Administration (FAA) Order 5190.6B

The Office of Planning provides technical assistance to state and county agencies in administering the statewide planning system.¹ This technical advisory discusses an FAA Order which may impact the use of land adjacent to or in the immediate vicinity of Hawaii's airports.

Background

Pursuant to FAA Order 5190.6B²:

"20.1. Background. Land use planning is an important tool in ensuring that land adjacent to, or in the immediate vicinity of, the airport is consistent with activities and purposes compatible with normal airport operations, including aircraft landing and takeoff. Ensuring compatible land use near federally obligated airports is an important responsibility and an issue of federal interest. In effect since 1964, Grant Assurance 21, Compatible Land Use, implementing Title 49 United States Code (U.S.C.) § 47107(a)(10), requires, in part, that the sponsor:"

"...take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which federal funds have been expended."

There are a number of sources that can assist an airport sponsor in dealing with noise, obstructions, and other incompatible land uses. These include, but are not limited to:

¹ HRS §§ 225M-2(b), 226-53(10).

² https://www.faa.gov/airports/resources/publications/orders/compliance_5190_6/media/5190_6b_chap20.pdf

- a. Hazardous Wildlife Attractants on or Near Airports, AC 150/5200-33B, August 28, 2007.³
- b. Construction or Establishment of Landfills near Public Airports, AC 150/5200-34A, January 26, 2006.
- c. Federal and State Coordination of Environmental Reviews for Airport Improvement Projects. (RTF format) – Joint Review by Federal Aviation Administration and National Association of State Aviation Officials (NASAO), issued March 2002.⁴
- d. Land Use Compatibility and Airports, a Guide for Effective Land Use Planning (PDF format), issued by the FAA Office of Environment and Energy.⁵
- e. Compatible Land Use Planning Initiative (PDF format), 63 Fed. Reg. 27876, May 21, 1998.⁶
- f. A Model Zoning Ordinance to Limit Height of Objects Around Airports, Advisory Circular (AC) 150/5190-4A.
- g. Glint/Glare Hazards, Airport Airspace Analysis (IOE/AAA), Combined Federal Regulation CFR Part 77 (e-CFR format) – Current as of December 15, 2015 (same as obstruction process below).
- h. Obstruction Evaluation/Airport Airspace Analysis (IOE/AAA), Combined Federal Regulation CFR Part 77 (e-CFR format) – Current as of December 15, 2015.
- i. Avigation and Noise Easements – Permitting agencies shall ensure that all permits issued to projects near airports are compatible with avigation easement agreements between the State of Hawaii Department of Transportation, Airports Division (DOT-A) and property owners. These easements grant the DOT-A the right of flight of aircrafts, the safe operations of airports, and acceptance of certain noise levels and other phenomena associated with the airport. The right to flight includes the prevention of wildlife hazard through appropriate mitigation and monitoring. In all land-use zone changes, this easement is required and must satisfy DOT-A requirements.

³ http://www.faa.gov/documentLibrary/media/advisory_circular/150-5200-33B/150_5200_33b.pdf

⁴ <https://www.faa.gov/airports/resources/publications/reports/environmental/media/eis-faa-nasao-report.pdf>

⁵ http://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/planning_toolkit/media/III.B.pdf

⁶ <https://www.gpo.gov/fdsys/pkg/FR-1998-05-21/pdf/98-13577.pdf>

Pertinent Information from FAA's Land-Use Practices on or near Airports That Potentially Attract Hazardous Wildlife, Glint/Glare Hazards and Obstruction Hazards:

2-1. General. The wildlife attracted to the airport environment vary considerably, depending on several factors, including land-use practices on or near the airport. Other hazards that attract wildlife include glint/glare hazards, certain street and property lighting designs, and aerial obstruction hazards, all of which threaten aviation safety. In addition to the specific considerations outlined below, airport operators should refer to Wildlife Hazard Management at Airports, Glint/Glare, and Obstruction guidance materials prepared by the FAA.

Pertinent Information from FAA Order 5190.6B Compatible Land Use and Airspace Protection:

4-3. Other Land-Use Practice Changes. As a matter of policy, the FAA encourages operators of public-use airports who become aware of proposed land use practice changes that may attract hazardous wildlife within 5 statute miles of their airports, to include glint/glare hazards and aerial obstructions to promptly notify the FAA. The FAA also encourages proponents of such land use changes to notify the FAA as early in the planning process as possible. Advanced notice affords the FAA an opportunity (1) to evaluate the effect of a particular land-use change on aviation safety and (2) to support efforts by the airport sponsor to restrict the use of land next to or near the airport to uses that are compatible with the airport.

Land use practices that may attract hazardous wildlife, and may also be a glint/glare hazard or an aerial obstruction hazard to existing flight paths include, but are not limited to:

- Underwater waste discharges
- Aquaculture activities conducted outside of fully enclosed buildings
- Water features on properties such as fountains or ponds, areas of permanent or temporary standing water, and furrow irrigation and drainage systems
- Landfills and material recycling/processing facilities
- Photovoltaic/Solar panels
- Utility poles and lines
- Wind turbines
- Antenna towers
- High rise building structures
- Cranes
- Tethered Air Balloon Devices
- Street and exterior property lights
- Certain landscape, trees, and ground cover

4-3.a. Airports that have received Federal grant-in-aid assistance are required by their grant assurances to take appropriate actions to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations. The FAA recommends that airport operators to the extent practicable oppose off-airport land-use changes or practices within the separations identified in Sections 1-2 through 1-4 that may attract hazardous wildlife, and/or be glint/glare, and/or obstruction hazards. Failure to do so may lead to noncompliance with applicable grant assurances. The FAA will not approve the placement of airport development projects pertaining to aircraft movement in the vicinity of hazardous wildlife attractants, or where glint/glare and/or obstruction hazards exist without appropriate mitigating measures. Increasing the intensity of wildlife control efforts is not a substitute for eliminating or reducing a proposed wildlife hazard, nor is the placement adjustments to mitigate glint/glare and obstruction hazards. Airport operators should identify hazardous wildlife, glint/glare, and obstruction hazards during any planning process for new airport development projects.

Pertinent Information from FAA 14 Code of Federal Regulation Part 77 Safe, Efficient Use and Preservation of the Navigable Airspace:

7460-1 Notice of Proposed Construction or Alteration – Requirement to file §77.9 Construction or alteration requiring notice.

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

- (a) Any construction or alteration that is more than 200 ft. above ground level (AGL) at its site.
- (b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:
 - (1) 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.
 - (2) 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.
 - (3) 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.
- (c) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of

the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.

NOTE

- (a) You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest.
- (b) If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date that the application is filed with the FCC.
- (c) If you propose construction or alteration to an existing structure that exceeds 2,000 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.
- (d) The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You may provide notice to the FAA by any available, expeditious means. You must file a completed FAA Form 7460-1 within 5 days of the initial notice to the FAA. Outside normal business hours, the nearest flight service station will accept emergency notices.
- (e) There is a Notice Criteria Tool on <https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showNoNoticeRequiredToolForm> on the left margin of the webpage. It is free and will help to determine if proposed structures need to be filed for aeronautical review.

Photovoltaic and Solar Farms concerns about hazards to safe air navigation from:

1. Potential glare and glint caused by parabolic troughs and heliostats that might cause temporary loss of vision to pilots on arrival or departure, or to Air Traffic Control personnel in the control tower.
2. Electromagnetic interference with on-and off-airport radar systems that may pick up a false signal from the metal components of the mirrors with impacts that can vary based on solar tracking activity.
3. Physical penetrations of navigable airspace from power towers that extend into Part 77 imaginary surfaces, terminal instrument procedures (TERPS) surfaces, or the path of radio emitting navigational aids.
4. Thermal plumes emitted by the power tower that produce unexpected upward moving air columns into navigable air space.
5. Use your discretion to evaluate the proposed footprint to be developed. If the footprint is approaching 1 acre, have the proponent submit a 7460-1. If its within 3 nautical miles of an airport, have them submit a 7460-1.

Wind Farms concerns about hazards to safe air navigation from:

1. Create false targets and impacts FAA long radar capabilities.
2. Height of structures and propellers.
3. Any wind farm proposal needs to have the proponent submit a 7460-1.

Application

The State of Hawai'i Department of Transportation, Airports Division (DOT-A) discourages such land uses that may attract hazardous wildlife within five (5) statute miles of airport boundaries, pursuant to FAA Advisory Circular 150/5200-33B, (August 28, 2007). Attached are maps depicting the five (5) statute miles from airports in the State of Hawai'i, including glint/glare hazards pursuant to Federal Aviation Administration Notice of Interim Policy dated October 23, 2013 and aerial obstruction to existing flight paths pursuant to Combined Federal Regulation CFR Part 77 (e-CFR format) – Current as of December 15, 2015.

State, county, and federal agencies who have jurisdiction over areas within five (5) statute miles of airport boundaries and have permit authority over future land uses that may attract hazardous wildlife shall consider FAA Advisory Circular 150/5200-33B, including glint/glare hazards and aerial obstruction(s) to existing flight paths in accordance with the FAA Obstruction Evaluation/Airport Airspace Analysis (iOE/AAA), Combined Federal Regulation CFR Part 77 in their decision making on plans and permits,

Consultation with the DOT-A (Airport Operations) shall be performed at the earliest time where a future land use that may attract hazardous wildlife, glint/glare hazard or aerial obstruction(s) is proposed. Agencies should inform applicants of permits or approvals of such proposed land uses to consult with the DOT-A (Airport Operations) as soon as possible, pursuant to the Airport Zoning Act HRS Chapter 262.

Where applicable, when a land-owner petitions the State of Hawaii Land Use Commission (LUC) with a request for a land use district boundary amendment, the State will propose an LUC condition requiring an avigation and noise easement be granted to DOT-A and the terms of the easement must meet the requirements of the DOT-A, including mitigation to minimize potential wildlife hazards to aircrafts and airport operations.

In cases where the respective counties are the authority for land use district boundary amendments (petitions under fifteen (15) acres), the respective counties should contact DOT-A for any requirements of an avigation and noise easement.

When a landowner in the vicinity of the airport pursues redevelopment of a property, the landowner must grant an avigation and noise easement to the DOT-A to ensure compatible land use in the vicinity of the airport. The terms of the easement must satisfy DOT-A requirements.

Grant of avigation and noise easements to DOT-A is necessary for the safety of air transportation which is a public benefit. State, County, and Federal regulatory and service agencies that work with any aspect of the conditions identified in an avigation and noise easement must take appropriate actions and incorporate the DOT-A avigation easement requirements in their decisions.

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Note: A Technical Assistance Memorandum (TAM) is an informational statement of the law, regulations, or policies. It is accurate on the date issued. Subsequent changes in the law or regulations, judicial decisions, or changes in policies could affect the validity of the information presented in a TAM.

