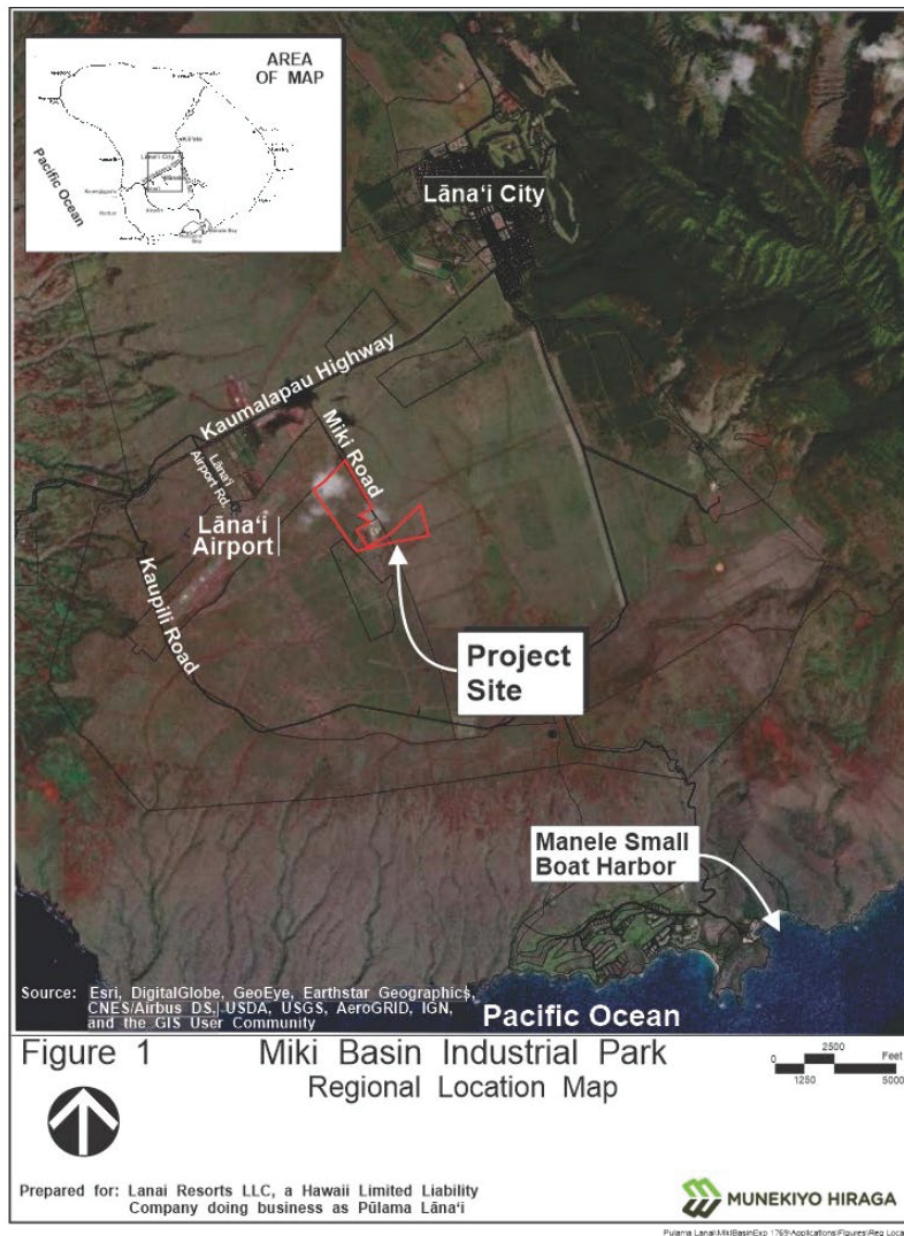


Comment No. 5:

Where is the location of the Agricultural Park in relation to this Project?

Response:

On page REF-25 of the Draft EA (pasted below for convenience), the State 100 acre Agricultural Park is shown as the black polygon adjacent to the south east corner of the project site (red polygon).



Comment No. 6:

- (A) *Clarify the demand and use of electricity consumption in light of the relatively small Lanai grid and relatively large solar facility, powering of diesel generators, proposed battery storage, etc. Diesel generators likely are not easily powered “up and down” so what happens with the electricity generated by the proposed solar grid.*
- (B) *Is there a significant battery storage component to this project?*
- (C) *Is the electricity produced by the solar grid used only for activities in the proposed Miki Basin Industrial Park or is it directed to the Lanai power grid for other consumer use?*

Response:

- (A) Public Utilities Commission (PUC) Docket No. 2015-0389 explicitly details the procurement requirements for the photovoltaic and battery energy storage project, which will be interconnected to the electric grid on Lānaʻi, serving all residents and businesses connected to the grid.

Hawaiian Electric (HECO) is responsible for procuring the energy for the project and the PUC oversees the process and approves the power purchase agreement. HECO is responsible for the operation of the electric system on Lānaʻi, which includes integrating the renewable energy from the photovoltaic and battery energy storage project as well as the existing fossil fuel generation fleet. The request for annual energy in the current procurement is 35,800 megawatt-hours (MWh).

- (B) See response to **Comment 06(A)**.
- (C) The electricity generated by the photovoltaic and battery energy storage project will be connected to the electric grid on Lānaʻi, which serves all customers with a HECO meter. It should be noted that if there are HECO meters within the Miki Basin Industrial Park, the electricity provided will likely include energy produced from the photovoltaic and battery energy storage project.

Comment No. 7:

26 acres are proposed for “New Industrial Uses”. How much of these 26 acres are left over for potential “other uses” beyond those already listed (slaughterhouse, warehouse space for cold storage, laboratory/testing facilities, multi-media facility, animal hospital)?

Response:

As previously mentioned, specific plans for the 26 acres identified for “Other New Industrial Uses” have not been developed or identified. The list of potential uses included in the EA were provided as example uses allowed under “M-1, Light Industrial” and “M-2, Heavy Industrial” zoning. As discussed in response to **Comment 02(A)**, ensuring that there is enough land for economic development was a specific strategy in the Community Plan. See **Exhibit A-1** and **Exhibit A-2** for permitted, accessory, and special uses.

Comment No. 8:

Provide more information on potential “on-island” businesses anticipated to move to the Project area and the basis for that information. Please clarify if there will be adequate space for these proposed “relocations.”

Response:

Please see page REF-180 of the Draft EA for some of the industrial activities that are listed and described as industrial activities that could or are likely to develop at Miki Basin Industrial Park. Some of these activities are currently operating out of residential homes or vehicles, and the 26 acres proposed for “Other New Industrial Uses” could potentially serve these businesses.

Comment No. 9:

Is the potential slaughterhouse to be used for domestic animals and/or wild game?

Response:

The potential slaughterhouse was listed as an example of a type of industrial use activity that could be located in the project area. At this time, there are no development plans for a slaughterhouse; however, community members have expressed interest in a slaughterhouse.

Comment No. 10:

Are there any potential issues with this Project being relatively close to the Lanai Airport?

Response:

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. All Federal, State, and County laws and regulations will be followed for any development plans. These regulations ensure that potential issues are identified and mitigated before approvals are obtained.

Comment No. 11:

Please explain in more detail the potential use of "laboratory testing facility." What is being tested?

Response:

The potential laboratory testing facility was listed as an example of a type of industrial use activity that could be located in the project area. At this time, there are no development plans for a laboratory testing facility; however, at the onset of the pandemic, community members did express an interest in a laboratory testing facility.

Comment No. 12:

What disclosures are required for the use of any proposed hazardous or toxic uses in the Project?

Response:

All Federal, State, and County laws and regulations (which include any required disclosures) will be followed for any development plans.

Comment No. 13:

Assess any impacts to guided hunts in the area of the Project.

Response:

The Applicant has an agreement with a private operator for guided hunts on Lānaʻi. The area in the Miki 200 Industrial Park is included; however, rarely used and a very small portion of the guided hunt area. The Applicant will work with the private operator to remove this area from the agreement for safety reasons, when development occurs.

Comment No. 14:

On page REF-95 there is mention of a new private road through the Palawai Basin. Is this part of the 20-acre infrastructure use? Is this being assessed in the EA?

Response:

The “Proposed Private Roads” and “Proposed Public Roads” were illustrated by the County’s cartographer as dotted lines on the Community Plan map provided on page REF-95. Figure 1 is the same map that is provided on page REF-95. This is outside of the Project area and not part of the Applicant’s proposed action.

Comment No. 15:

Provide more detail on the “two access directions” to the Project.

Response:

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.

12/27/21, 11:49 AM

County of Maui, HI Code of Ordinances

19.24.020 - Permitted uses.

- A. Within the M-1 light industrial district, no building, structure or premises will be used and no building or structure will be hereafter erected, structurally altered, replaced, or enlarged except for one or more of the following uses:

Uses	Notes and Exceptions
Any use permitted in a B-1, B-2, or B-3 business district except single family dwellings, duplexes, bungalow courts, short-term rental homes, and transient vacation rentals	
Animal kennels	
Dwelling units located in the same building as any non-dwelling permitted use	
Assembly of electrical appliances, radios and phonographs including the manufacture of small parts such as coils, condensers crystal holders and the like	
Carpet cleaning plants	
Cold storage plants	
Commercial laundries	
Craft cabinet and furniture manufacturing	
Education, specialized	
Farm implement sales and service	

1/4

12/27/21, 11:49 AM	County of Maui, HI Code of Ordinances
General food, fruit and vegetable processing and manufacturing plants	
Harbor facilities	
Ice cream and milk producing, manufacturing and storage	
Laboratories—experimental, photo or motion picture, film or testing	
Light and heavy equipment and product display rooms, storage and service	
Machine shop or other metal working shop	
Manufacture, compounding or treatment of articles or merchandise from the following previously prepared materials: aluminum, bone, cellophane, canvas, cloth, cork, feathers, felt, fiber, fur, glass, hair, horn, leather, plastics, precious or semi-precious metals or stones, shell, tobacco and wood	
Manufacture, compounding, processing, packing or treatment of such products as candy, cosmetics, drugs, perfumes, pharmaceutical, toiletries, and food products	Except the rendering or refining of fats and oils
Manufacture, dyeing and printing of cloth fabrics and wearing apparel	
Manufacture of musical instruments, toys, novelties and rubber and metal stamps	

2/4

12/27/21, 11:49 AM

County of Maui, HI Code of Ordinances

Manufacture of pottery and figurines or other similar ceramic products	
Milk bottling or central distribution stations	
Mortuaries and morgues	
Plumbing shops	
Poultry or rabbit slaughter incidental to a retail business on the same premises	
Production facility, multimedia	
Radio transmitting and television stations; provided, that towers are of the self-sustaining type without guys	
Replating shop	
Retail lumber yard including mill and sash work	Mill and sash work shall be conducted within a completely enclosed building
Small boat building	
Soda water and soft drink bottling and distribution plants	
Tire repair operation including recapping and retreading	
Utility facilities, minor, and substations up to, and including, 69 kv transmission	
Warehouse, storage and loft buildings	

3/4

12/27/21, 11:49 AM

County of Maui, HI Code of Ordinances

Wearing apparel manufacturing	
Wholesale business, storage buildings, nonexplosive goods and warehouses	

(Ord. No. 5126, § 5, 2020; Ord. No. 3975, § 2, 2012)

19.24.030 - Accessory uses and structures.

The following uses and structures, located on the same lot, are deemed accessory, customary, incidental, usual and necessary to the above permitted uses in the district:

Uses:

Energy systems small-scale

Fences, walls, patios, decks and other landscape features

Garages, porte-cochere, mailboxes, ground signs, and trash enclosures

Security/watchman or custodian outbuildings

Subordinate uses and structures which are determined the planning director to be clearly incidental and customary to the permitted uses listed herein (Ord. No. 3975, § 2, 2012)

4/4

12/27/21, 11:51 AM

County of Maui, HI Code of Ordinances

19.26.020 - Permitted uses.

Within the M-2 heavy industrial district, no building, structure or premises will be used and no building or structure will be hereafter erected, structurally altered, replaced, or enlarged except for one or more of the following uses:

Uses	Notes and Exceptions
Any use permitted in the B-1, B-2 and B-3 business districts and M-1 light industrial district except single family dwellings, duplexes, bungalow courts, short-term rental homes, transient vacation rentals and apartments	Except for living quarters used by security/watchmen or custodians of an industrially used property
Alcohol manufacture	
Automobile wrecking, if conducted within a building	
Boiler and steel works	
Brick, tile or terra cotta manufacture	
Canneries except fish canneries	
Chemical manufacture	
Concrete or cement products manufacture	
Factories	
Foundries	
Freight classification yard (railroad)	

1/4

12/27/21, 11:51 AM

County of Maui, HI Code of Ordinances

Junk establishment used for storing, depositing, or keeping junk or similar goods for business purposes	Such establishment shall not be nearer than 8 feet from any other property line for the storage of the junk or similar goods except in buildings entirely enclosed with walls
Lime kilns which do not emit noxious and offensive fumes	
Lumber yard	
Machine shops	
Material recycling and recovery facilities	
Oilcloth or linoleum manufacture	
Oil storage plants	
Paint, oil (including linseed), shellac, turpentine, lacquer, or varnish manufacture	
Petroleum products manufacture or wholesale storage of petroleum	
Planing mill	
Plastic manufacture	
Railroad repair shops	
Rolling mills	
Ship works	
Soap manufacture	

2/4

12/27/21, 11:51 AM

County of Maui, HI Code of Ordinances

Sugar mills and refineries	
Utility facilities, major	
In general those uses which may be obnoxious or offensive by reason of emission of odor, dust, smoke, gas, noise, vibration and the like and not allowed in any other district	Provided, however, that any use not specified in this section shall not be permitted unless approved by the planning director as conforming to the intent of this title

(Ord. No. 5126, § 7, 2020; Ord. No. 3976, § 1, 2012)**19.26.030 - Accessory uses and structures.**

The following uses and structures, located on the same lot, are deemed accessory, customary, incidental, usual, and necessary to the above permitted uses in the district:

Uses

Energy systems, small-scale

Fences, walls, patios, decks, and other landscape features

Garages, porte-cochere, mailboxes, ground signs, and trash enclosures

Security/watchman or custodian outbuildings

Subordinate uses and structures which are determined by the planning director to be clearly incidental and customary to the permitted uses listed herein

(Ord. No. 3976, § 2, 2012)

19.26.040 - Special uses.

The following uses and structures shall be permitted in the M-2 heavy industrial district provided a County special use permit, pursuant to section 19.510.070, Maui County Code, has first been obtained.

Special Uses

Acetylene gas manufacture or bulk storage

3/4

12/27/21, 11:51 AM

County of Maui, HI Code of Ordinances

Acid manufacture

Ammonia, bleaching powder or chlorine manufacture

Asphalt manufacture of refueling and asphaltic concrete plant

Blast furnace or coke oven

Cement, lime, gypsum, or plaster of paris manufacture

Crematories

Creosote treatment plants

Explosives manufacture or storage

Fertilizer manufacture

Fish canneries

Garbage, offal or dead animals reduction or dumping

Gas manufacture

Glue manufacture

Petroleum refinery

Quarry or stone mill

Rock, sand, gravel, or earth excavation, crushing or distribution

Saw mill

Slaughter of animals

Stock yard or deeding pens

Tannery or the curing or storage of raw hides

(Ord. No. 3976, § 1, 2012)

4/4

MICHAEL P. VICTORINO
Mayor

MARC I. TAKAMORI
Director

MICHAEL B. DU PONT
Deputy Director



DEPARTMENT OF TRANSPORTATION
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793
TELEPHONE: (808) 270-7511
FAX: (808) 270-7505

November 29, 2021

State of Hawaii, Land Use Commission
Department of Business, Economic Development & Tourism
Attn: Scott Derrickson, Chief Planner
P.O. Box 2359
Honolulu, HI 96804

SUBJECT: 2nd Draft Environmental Assessment for Proposed Miki Basin Industrial Park, Lanai,
Hawaii (Tax Map Key (2)4-9-002:061 (por.))

Dear Mr. Derrickson,

Thank you for the opportunity to review and comment on this project. At this time, we do not have any comments.

Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "MT", is written over a horizontal line.

Marc Takamori
Director

cc: Chris Sugidono, Munekiyo Hiraga

February 7, 2022

Marc Takamori, Director
County of Maui
Department of Transportation
110 Ala'ihi Street, Suite 210
Kahului, Hawai'i 96732

SUBJECT: 2nd Draft Environmental Assessment for Proposed Miki Basin
Industrial Park at TMK (2)4-9-002:061 (por.), Lāna'i, Maui, Hawai'i

Dear Mr. Takamori:

Thank for your comment letter dated November 29, 2021, regarding the 2nd Draft Environmental Assessment (EA) for the subject project. On behalf of Lāna'i Resorts LLC, a Hawai'i Limited Liability Company, doing business (dba) as Pūlama Lāna'i (Applicant), we acknowledge that the Department of Transportation has no comments to offer at this time.

We appreciate your input and will include a copy of your comment letter and this response in the Final EA. Should you have any questions or require further information regarding the proposed project, please contact me at (808) 244-2015, extension 221.

Very truly yours,



Chris Sugidono
Senior Associate

CEJS:ab

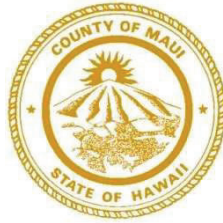
cc: Scott Derrickson, State Land Use Commission
Keiki-Pua Dancil, Pūlama Lāna'i
Calvert Chipchase, Cades Schutte

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MICHAEL P. VICTORINO
Mayor

JEFFREY T. PEARSON, P.E.
Director

HELENE KAU
Deputy Director



DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

December 13, 2021

Mr. Scott Derrickson, Chief Planner
State of Hawaii
Land Use Commission
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, Hawaii 96804-2359

Dear Mr. Derrickson:

SUBJECT: 2ND DRAFT ENVIRONMENTAL ASSESSMENT FOR PROPOSED MIKI BASIN
TMK: (2) 4-9-002:061 (por.)

Thank you for the opportunity to review and comment on the subject project.

Lanai island does not obtain water service from the County of Maui, but from private water system purveyor(s). Therefore, any building or plumbing permits will not be reviewed by the Department of Water Supply. However, if a subdivision application is received, we will review the project to ensure it complies with Maui County Code, Chapter 14.12 "Water Availability" code concerning a long-term, reliable supply of water for the subdivision.

If you have any questions, please contact Tammy Yeh of our Engineering Division at (808) 270-7682 or at tammy.yeh@co.maui.hi.us. Engineering Division's main number is (808) 270-7835.

Sincerely,

A handwritten signature in blue ink that reads "W Taomoto".

WENDY TAOMOTO, P.E.
Engineering Program Manager

TY

cc: DWS – Water Resources & Planning (Water.Resources@mauicounty.gov)
Chris Sugidono, MUNEKIYO HIRAGA (planning@munekiyohiraga.com)

February 7, 2022

Wendy Taomoto, Engineering Program Manager
Department of Water Supply
County of Maui
200 South High Street
Wailuku, Hawai'i 96793

SUBJECT: 2nd Draft Environmental Assessment for Proposed Miki Basin
Industrial Park at TMK (2)4-9-002:061 (por.), Lāna'i, Maui, Hawai'i

Dear Ms. Taomoto:

Thank for your comment letter dated December 13, 2021, regarding the 2nd Draft Environmental Assessment (EA) for the subject project. On behalf of Lāna'i Resorts LLC, a Hawai'i Limited Liability Company, doing business (dba) as Pūlama Lāna'i (Applicant), we appreciate you taking the time to provide us comments on this 200-acre master-planned light and heavy industrial development.

On behalf of the Applicant, we acknowledge that the Department of Water Supply will not be reviewing any building or plumbing permits for the proposed project. The Applicant also confirms that the proposed project does not involve a subdivision, and thus will not be subject to Maui County Code, Chapter 14.12 "Water Availability".

We appreciate your input and will include a copy of your comment letter and this response in the Final EA. Should you have any questions or require further information regarding the proposed project, please contact me at (808) 244-2015, extension 221.

Very truly yours,



Chris Sugidono
Senior Associate

CEJS:ab

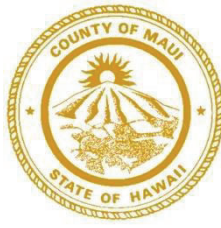
cc: Scott Derrickson, State Land Use Commission
Keiki-Pua Dancil, Pūlama Lāna'i
Calvert Chipchase, Cades Schutte

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MICHAEL P. VICTORINO
Mayor

JEFFREY T. PEARSON, P.E.
Director

HELENE KAU
Deputy Director



DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.mauicounty.gov/water

December 21, 2021

Chris Sugidono, Senior Associate
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793

RE: Miki Basin Industrial Park 2nd Draft Environmental Assessment (DEA), Lāna'i Island, Hawai'i.
TMK: (2) 4-9-002: 061 (por.)

Dear Mr. Sugidono:

The County of Maui Department of Water Supply (MDWS) Water Resources and Planning (WRP) Division thanks you for the opportunity to offer the following comments on the Miki Basin Industrial Park 2nd DEA. The WRP previously submitted a letter on October 21, 2021 regarding the Miki Basin Interim Industrial Uses in the State Agricultural and Rural Districts (SUP2) Application (see attachment), and the MDWS Engineering Division previously submitted a letter regarding this 2nd DEA on December 13, 2021 (see attachment). The entire Island of Lāna'i is served by the Lāna'i Water Company (LWC), a private water utility company regulated by the Public Utilities Commission. Please note that MDWS has no jurisdiction over projects on Lāna'i.

Lāna'i Island Water Use and Development Plan (WUDP) Alignment

Lāna'i Island WUDP Wastewater/R-1 Provisions and Resource Options

The MDWS was unable to find any mention of the *potential* use of R-1 water for irrigation and other industrial uses in the analysis of alternatives in the DEA or supporting reports. The proposed project's *potential* use of R-1 recycled wastewater would be in alignment with the Lāna'i Island WUDP Provisions:

"Lāna'i's water and wastewater utilities should implement water recycling and water conservation programs targeting landscape...to substantially reduce water consumption to the extent allowed by the Public Utilities Commission" (Lāna'i Island WUDP, page 30).

"By Water All Things Find Life"

The Lāna'i Island WUDP Resource Options (page 15) cites expanded use of Lāna'i City reclaimed wastewater from: 1) Lāna'i City to Miki Basin; 2) Lāna'i City to Manele via Miki Basin; and 3) Lāna'i City to Manele (Lāna'i Island WUDP, page 13). The proposed project footprint appears to come within approximately one mile of an existing available R-1 recycled wastewater pipeline. Opportunity to satisfy Miki Basin Industrial Park's water demand for washing down stockpiles, dust control, and irrigation with R-1 recycled wastewater may be accomplished by extending the Lāna'i City reclaimed wastewater pipeline one mile to the Miki Basin Industrial Park.

Lāna'i Island WUDP Conservation Options

Specific water conservation resource options measures advocated by the Lāna'i Island WUDP (Page 19) that may be applicable to project landscaping and water reuse (considering the aesthetics of being in the vicinity of the airport, where visitors first impressions occur) include the following: 3) improve irrigation scheduling; 4) soil moisture sensors; 5) improve performance of irrigation systems; 6) auto rain shut off; and 7) greywater for irrigation.

We hope you find this information useful. Should you have any questions, please contact staff planner Alex Buttaro at (808) 463-3103 or alex.buttaro@mauicounty.gov.

Sincerely,



Jeffrey T Pearson, P.E.

Director

BAB

Cc: MDWS Engineering

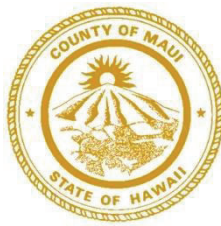
Scott Derrickson, Chief Planner, State of Hawai'i Land Use Commission

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MICHAEL P. VICTORINO
Mayor

JEFFREY T. PEARSON, P.E.
Director

HELENE KAU
Deputy Director



DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.mauicounty.gov/water

October 22, 2021

Kurt Wollenhaupt, Staff Planner
County of Maui Department of Planning
2200 Main Street, Suite 315
Wailuku, Hawaii 96793

RE: Miki Basin Interim Industrial Uses in the State Agricultural and Rural Districts (SUP2)
Application, Lāna'i Island, Hawaii.
TMK: (2) 4-9-002: 061 (por.)

Dear Mr. Wollenhaupt:

The County of Maui Department of Water Supply (MDWS) thanks you for the opportunity to offer the following comments on the Miki Basin Interim Industrial Uses Special Uses in the State Agricultural and Rural Districts Application (SUP2).

Water Source and Demand

According to the Commission on Water Resource Management (CWRM), Lāna'i Island has a sustainable yield of 6 million gallons per day (gpd). Fresh water is found solely in the high-level Central Aquifer Sector. The entire Island of Lāna'i is served by the Lāna'i Water Company (LWC), a private water utility company regulated by the Public Utilities Commission. Please note that MDWS has no jurisdiction over projects on Lāna'i. The SUP2 permit application states that the water demand for the proposed project is 2,000 gpd (Miki Basin Interim Industrial Uses LUC Permit Application, page 11).

Lāna'i Island Water Use and Development Plan (WUDP) Alignment

Lāna'i Island WUDP R-1 Resource Options

The projects *potential* use of R-1 recycled wastewater would be in alignment with the Lāna'i Island WUDP:

"Efficient use of water...." is "...essential to reduce waste of Lana'i's limited water resources. Lana'i's water and wastewater utilities should implement water recycling and water conservation programs targeting landscape...to substantially reduce water consumption to the extent allowed by the Public Utilities Commission" (Lāna'i Island WUDP, page 30).

"By Water All Things Find Life"

The Lāna'i Island WUDP Resource Options (page 15) cites expanded use of Lāna'i City reclaimed wastewater from: 1) Lāna'i City to Miki Basin; 2) Lāna'i City to Manele via Miki Basin; and 3) Lāna'i City to Manele (Lāna'i Island WUDP, page 13). The proposed project footprint appears to come within approximately one mile of existing available R-1 recycled wastewater. Opportunity to satisfy Miki Basin Industrial's water demand for washing down stockpiles and dust control with R-1 recycled wastewater may be accomplished by extending the Lāna'i City reclaimed wastewater pipeline from Lāna'i City.

Lāna'i Island WUDP Conservation Options

Specific water conservation resource options measures advocated by the Lāna'i Island WUDP (Page 19) that may be applicable to project landscaping and water reuse (considering the aesthetics of being in the vicinity of the airport, where visitors first impressions occur) include the following: 3) improve irrigation scheduling; 4) soil moisture sensors; 5) improve performance of irrigation systems; 6) auto rain shut off; and 7) greywater for irrigation.

Pollution Prevention and Conservation

CWRM promotes the protection of groundwater and the value of treating stormwater as a resource, including groundwater recharge capability when contained onsite, described in its document titled *A Handbook for Stormwater Reclamation and Reuse Best Management Practices in Hawai'i*, December, 2008 found here:

http://files.hawaii.gov/dlnr/cwrmp/planning/hsrar_handbook.pdf. The MDWS recommends implementing Best Management Practices (BMPs) contained in the document, such as permeable surfaces to reduce storm water loss (for example, permeable detention ponds and vegetated filter strips), and bio-retention rain gardens. Leadership in Energy and Environmental Design (LEED) certification is recommended for water conservation.

Construction BMPs for Pollution Prevention

In order to protect ground and surface water resources, we recommend that in addition to required BMPs, the following measures designed to minimize infiltration and runoff be implemented during construction:

- Prevent cement products, oil, fuel and other toxic substances from falling or leaching into the ground.
- Maintain vehicles and equipment to prevent oil or other fluids from leaking. Concrete trucks and tools used for construction should be rinsed off-site.
- Properly install and maintain erosion control barriers, such as silt fencing or straw bales.
- Disturb the smallest area possible. Retain ground cover until the last possible date.
- Replanting of denuded areas should include soil amendments and temporary irrigation. Use high seeding rates to ensure rapid establishment of stands of plants.
- Keep runoff on-site.

Conservation BMPs

Indoor

- Use EPA WaterSense labeled plumbing fixtures.
- Install flow reducers and faucet aerators in all plumbing fixtures wherever possible.
- Install dual flush toilets with high-efficiency models that use 1.28 gallons per flush or less.
- Install bathroom sink faucets with fixtures that do not exceed 1 gallon per minute at 60 pounds per square inch (psi).

Outdoor

- Use Smart Approved WaterMark irrigation products. Examples include evapotranspiration irrigation controllers, drip irrigation and water-saving spray heads.
- After plants are established, in order to avoid stimulating excessive growth, avoid fertilizing and pruning. Time watering to occur in the early morning or evening to limit evaporation. Limit the use of turf.
- Use native Hawaiian climate-adapted plants for landscaping. Native Hawaiian plants adapted to the area conserve water and protect the watershed from degradation due to invasive species.
- We recommend adopting landscape irrigation conservation BMPs endorsed by the Landscape Industry Council of Hawai'i at https://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf

We hope you find this information useful. Should you have any questions, please contact staff planner Alex Buttaro at (808) 463-3103 or alex.buttaro@mauicounty.gov.

Sincerely,



Jeffrey T Pearson, P.E.

Director

BAB

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February 7, 2022

Jeffrey T. Pearson, Director
Department of Water Supply
County of Maui
200 South High Street
Wailuku, Hawai'i 96793

SUBJECT: 2nd Draft Environmental Assessment for Proposed Miki Basin
Industrial Park at TMK (2)4-9-002:061 (por.), Lāna'i, Maui, Hawai'i

Dear Mr. Pearson:

Thank for your comment letter dated December 21, 2021, regarding the 2nd Draft Environmental Assessment (EA) for the subject project. On behalf of Lāna'i Resorts LLC, a Hawai'i Limited Liability Company, doing business (dba) as Pūlama Lāna'i (Applicant), we appreciate you taking the time to provide us comments on this 200-acre master-planned light and heavy industrial development.

The Applicant acknowledges the opportunity to satisfy some of the proposed project's water demand with R-1 recycled wastewater and will consider to the extent applicable and available the potential to utilize R-1 recycled wastewater. The Applicant also acknowledges the specific water conservation measures advocated by the Lāna'i Island WDUP that may be applicable to project landscaping and water reuse. It should be further noted that landscaping in an industrial area is not necessarily conducive.

We appreciate your input and will include a copy of your comment letter and this response in the Final EA. Should you have any questions or require further information regarding the proposed project, please contact me at (808) 244-2015, extension 221.

Very truly yours,

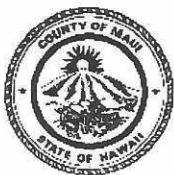


Chris Sugidono
Senior Associate

CEJS:ab

cc: Scott Derrickson, State Land Use Commission
Keiki-Pua Dancil, Pūlama Lāna'i
Calvert Chipchase, Cades Schutte

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MICHAEL P. VICTORINO
MAYOR

OUR REFERENCE

YOUR REFERENCE

POLICE DEPARTMENT

COUNTY OF MAUI

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411



CHIEF OF POLICE

DEAN M. RICKARD
DEPUTY CHIEF OF POLICE

December 6, 2021

Mr. Chris Sugidono
Senior Associate
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793


**Re: 2nd Draft Environmental Assessment for Proposed Miki Basin
Industrial Park, Lanai, Hawaii (TMK: (2) 4-9-002:061 (por.))**

Dear Mr. Sugidono:

This is in response to your letter dated November 19, 2021 requesting comments on the 2nd Draft Environmental Assessment (EA) for the proposed Miki Basin Industrial Park project.

In review of the submitted documents, we have no objections to the upcoming construction project. Thank you for giving us the opportunity to comment on this project.

Sincerely,


Assistant John Jakubczak
for: **DEAN M. RICKARD**
Acting Chief of Police

c: Scott Derrickson, Dept. of Business, Economic Development & Tourism

February 7, 2022

John Pelletier, Chief of Police
Maui Police Department
County of Maui
55 Mahalani Street
Wailuku, Hawai'i 96793

SUBJECT: 2nd Draft Environmental Assessment for Proposed Miki Basin
Industrial Park at TMK (2)4-9-002:061 (por.), Lāna'i, Maui, Hawai'i

Dear Chief Pelletier:

Thank for your comment letter dated December 6, 2021, regarding the 2nd Draft Environmental Assessment (EA) for the subject project. On behalf of Lāna'i Resorts LLC, a Hawai'i Limited Liability Company, doing business (dba) as Pūlama Lāna'i (Applicant), we acknowledge that the Maui Police Department has no objections to the proposed project.

We appreciate your input and will include a copy of your comment letter and this response in the Final EA. Should you have any questions or require further information regarding the proposed project, please contact me at (808) 244-2015, extension 221.

Very truly yours,



Chris Sugidono
Senior Associate

CEJS:ab

cc: Scott Derrickson, State Land Use Commission
Keiki-Pua Dancil, Pūlama Lāna'i
Calvert Chipchase, Cades Schutte

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Subject:

FW: 2nd draft EA - Pulama Lanai to develop industrial park on Lanai

From: Liu, Rouen [<mailto:rouen.liu@hawaiianelectric.com>]**Sent:** Thursday, December 16, 2021 4:10 PM**To:** Tessa Munekiyo Ng <tessa@munekiyohiraga.com>**Cc:** Kuwaye, Kristen <kristen.kuwaye@hawaiianelectric.com>**Subject:** 2nd draft EA - Pulama Lanai to develop industrial park on Lanai

Dear Ms. Munekiyo Ng,

Thank you for the opportunity to comment on the subject project. Maui Electric Company has no objection to the project. Should Maui Electric have existing easements and facilities on the subject property, we will need continued access for maintenance of our facilities. We appreciate your efforts to keep us apprised of the subject project in the planning process. Please be sure the contractor submits the service request in a timely fashion relative to when they expect energizing of electrical service. As the proposed Miki Basin Industrial Park project comes to fruition, please continue to keep us informed.

Should there be any questions, please contact me at 808-543-7245.

Thank you,
Rouen

CONFIDENTIALITY NOTICE: This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and/or privileged information. Any unauthorized review, use, copying, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender immediately by reply e-mail and destroy the original message and all copies.

February 7, 2022

Email: rouen.liu@hawaiianelectric.com

Rouen Liu
Maui Electric Company
900 Richards Street
Honolulu, Hawai'i 96813

SUBJECT: 2nd Draft Environmental Assessment for Proposed Miki Basin Industrial Park at TMK (2)4-9-002:061 (por.), Lāna'i, Maui, Hawai'i

Dear Mr. Liu:

Thank for your comment letter dated December 16, 2021, regarding the 2nd Draft Environmental Assessment (EA) for the subject project. On behalf of Lāna'i Resorts LLC, a Hawai'i Limited Liability Company, doing business (dba) as Pūlama Lāna'i (Applicant), we acknowledge that Maui Electric Company (MECO) has no objections to the proposed project.

The Applicant notes MECO's request for continued access on any existing easements for maintenance of any existing facilities on the subject property. The Applicant also notes the request for the project contractor to submit a service request in a timely fashion relative to when they expect energizing of electrical service. The Applicant will continue to keep MECO informed of project updates, as applicable.

We appreciate your input and will include a copy of your comment letter and this response in the Final EA. Should you have any questions or require further information regarding the proposed project, please contact me at (808) 244-2015, extension 221.

Very truly yours,



Chris Sugidono
Senior Associate

CEJS:ab

cc: Scott Derrickson, State Land Use Commission
Keiki-Pua Dancil, Pūlama Lāna'i
Calvert Chipchase, Cades Schutte

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Dan Orodener, Executive Officer
Land Use Commission
P. O. Box 2359
Honolulu, Hawaii 96804-235
dbedt.luc.web@hawaii.gov

December 22, 2021

Lānaʻi Resorts, LLC
Keiki-Pua Dancil
733 Bishop Street, Suite 1500
Honolulu, HI 96813
kdancil@pulamalanai.com

Munekiyo Hiraga/Chris Sugidono
305 High Street, Suite 104
Wailuku, HI 96793
planning@munekiyohiraga.com

RE: LUC Docket No. A19-809 Pulama Lana'i, 2nd Draft Environmental Assessment (DEA)
Proposed Miki Basin Industrial Park, Tax Map Key No. (2)4-9-002:061 (por)

Mr. Orodener:

Please accept the following questions that the above-referenced draft EA should address:

Ref. 29: The applicant states that “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. Over the initial 10-year development period, the estimated development cost for the Miki Basin Industrial Park is \$78.8 million.”

- *Please confirm the concrete recycling, rock crushing and asphalt plants are each owned/operated by the applicant, and explain why they are being relocated from their current locations.*
- *Please provide an estimate of how much of the initial \$78.8 million development cost will be borne by new industrial users.*
- *Please indicate what plans exist, if any, for the buildings that currently house the industrial uses planned for relocation.*

Ref. 29: The applicant states that “Full buildout of the proposed 200-acre Miki Basin Industrial Park will be developed incrementally over a period of 20 years,” but (**Ref. 134**) the LUC “requires that projects seeking reclassification be substantially completed within ten years or seek incremental approvals, pursuant to HAR § 15-15-50.”

- *Please identify what steps the applicant will have to take and approvals required if the development extends beyond 10 years.*

Ref. 43: The AIS recommended that a data recovery plan be developed for Sites 50-40-98-1980 and 50-40-98-1981, and the plan be implemented prior to proposed construction activities within the parcel.

- *Please indicate when this data recovery plan will be implemented.*

Ref. 46: “There are no major sources of air pollution in the immediate vicinity and vehicular traffic volumes are low.”

- *Please provide any information available on pollution emanating from the MECO power plant and the Lanai airport.*

Ref. 46: “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.”

Ref. 47: “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 Lanai Water Company.”

- *Please confirm that the water use referenced above will be metered and will exclusively use brackish water. If not, please explain why not.*

Ref. 53: The applicant “will provide or finance its fair share of infrastructure and facilities to support the project.

- *How will applicant’s “fair share” of infrastructure and facility costs be determined, and who or what will provide the balance of the infrastructure and facilities support costs? How does applicant envision apportioning these costs?*

Ref. 56: A large portion of the 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.”

- *Please confirm that at this time the 127 acres are designated solely for solar/storage.*
- *If not, please identify any additional renewable energy sources planned or anticipated.*
- *Please clarify if the applicant has any role in this process, aside from acting as landlord to a potential developer.*
- *If the PUC fails to approve a solar+ storage project submitted in Docket 2015-0389, does the applicant have other option(s) for renewables in this space? If not, how will the acres be used?*

Ref. 71: “It is expected that there will be a need for industrial zoned lands on the island of Lanai, considering there is none available presently.”

The 1998 Lānaʻi Community Plan included 20 acres to be set aside at Miki Basin for industrial use so both the company’s (Castle & Cooke at that time) as well as individual residents’ industrial uses could be relocated out of the city, and in September, 2000, 13.9 acres of former Ag land was conditionally rezoned for this purpose by Ordinance No. 2895; 10 conditions were attached, the first was that “50% of the land zoned M-2 Heavy Industrial shall be offered in fee.”

- *Please explain why this has not occurred, why the 20 industrial acres identified for fee simple sale 21 years ago have not yet been offered for sale, and detail where it is in the process of being offered.*

- *In light of the delay in addressing the claimed industrial “needs,” which were acknowledged 21 years ago and again in this draft EA, please justify why more acreage is needed at this time, aside from the 127 acres designated for renewables.*
- *The applicant stated at the 12.15.2021 Lānaʻi Planning Commission meeting that the 20 acres subject to the condominium regime have been rezoned from ag to industrial. Please confirm the date this rezoning was effective.*

Ref. 178: “This project [the Miki Basin 20-acre condominium development] is anticipated to be subdivided into 31 lots in accordance with County requirements, but the Land Court has yet to approve the subdivision. A petition to the Land Court for approval was submitted in 2018, but which was later amended to include the Hawaii Department of Transportation due to a public road over an easement which runs in part through a portion of the Lanai Airport property. The petition is under review by a Deputy Attorney General.” (Market Assessment, dated September, 2021.)

- *Please confirm whether the petition is still under review and explain why the review process has not been completed.*

Ref. 84: “The project strengthens the state’s economy through [] long-term opportunities in industrial and renewable energy industries.”

- *Please detail the long-term opportunities envisioned to be provided by renewable energy industries.*

Ref. 86: “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.”

Ref. 112-113: “Construction of the industrial park will allow existing industrial facilities currently scattered in business and residential areas in Lanaʻi City to relocate to more appropriate locations having the infrastructure and buffers necessary for industrial uses.”

- *Please identify the existing “scattered” industrial uses referenced above that are envisioned to be relocated, both those that are operated or controlled by the applicant and those that are not.*

Ref. 98: “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.”

Ref. 437: “Pulama Lanaʻi has submitted a Special Use Permit to the County of Maui Planning Department for the relocation of the interim industrial uses.”

- *Please confirm whether the CUP referenced above is the one applied for on 8/16/2021.*

Ref. 115: “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.”

- *Please confirm it is the applicant's intent that approximately 63% of the 200 acres will be dedicated to the planned solar+ storage, 10% will be dedicated to supporting infrastructure, 13% is made available to new industrial uses, and applicant is reserving the balance, 27 acres or 13.5%, for its own use.*

Ref. 116: "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."

- *Please discuss in detail the "additional planning" that occurred.*

Ref. 129: "A prior [LUC] docket, A89-649 Manele 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 [the applicant's] proposed development." (LUC Ltr., 11/19/2018)

- *Please explain why the above comment from the LUC was not addressed in the EA and provide the discussion requested.*
- *In addition, please provide an update of the progress of these commitments to transfer the 15-acre and 10-acre parcels.*

Ref. 134: "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." (SOP Ltr. 11/2018.)

- *Please indicate where in the draft EA the above requested phase schedule and maps appear.*
- *If they have not been prepared, please provide, indicating what physical portions of the 200 acres are envisioned to be part of the first 10-year phase of development.*

Ref. 135: "Glint/Glare Hazards, Airport Airspace analysis (iOE/AAA), Combined Federal Regulation CFR Part 77 (e-CFR format) Current as of December 15, 2015."

- *Please discuss what measures will be taken to avoid hazardous glare that will emanate from the proposed solar plus storage acreage, and identify which party will be responsible for taking such measures.*

Ref. 161: "We also recommend a discussion of the consistency of this current proposal for the Miki Basin Industrial Park with the projected buildout described in the 2011 Lanai Water Use and Development Plan." (CWRM Ltr., 12/17/2019.)

- *Please identify where in the draft EA this discussion appears.*
- *If it is not provided, please provide.*

Ref. 173: “Regarding market feasibility, commitments are in place for 174 acres (87%) of the Project area. An additional 7.6 acres for ‘typical industrial activities’ will increase the projected demand to 181.6 acres (91%) by 2030.”

- *Please specifically identify who or what entities have made commitments for the 174 acres.*

Ref. 180: “A pent-up demand for industrial land and industrial space to accommodate ‘typical industrial activities’ is readily apparent on Lanai. Many businesses in Lanai City are operated from homes, partly because there are no industrial parks on Lanai that serve small scale tenants. Yards and rooms are used for operations and to store equipment and supplies.”

- *Please specifically identify which businesses are referenced above to support the claim of “pent-up demand,” and explain the cost structure that will allow these small-scale tenants to be able to afford to relocate to the industrial park.*

Ref. 180: “Fruit and vegetable processing, possibly with a shared commercial kitchen.”

- *The above is listed as “likely” to develop at Miki. Please explain how this would differ from, and would not duplicate, what Sensei Farms is currently offering.*

Ref. 208: “A special effort was made to look for evidence indicating the presence of ope‘ape‘a, or Hawaiian hoary bat, by conducting an evening survey at two (2) locations within the project area.”

- *Please provide details of this survey, was it a one-time effort? Over what period of time and on what dates? At which locations?*

Ref. 438: On 7/15/1994 the former landowner signed a lease with the state for a 100-acre agricultural park, to be located near the proposed industrial park, that provides for an average of .20 MGD of water.¹ On 6/4/2018, applicant filed a compliance update with the LUC indicating that the land had been leased to the state, <https://luc.hawaii.gov/wp-content/uploads/2018/06/LUC-Manele-2017-Annual-Report-Docket-A89-649.pdf>, and on 3/5/ 2021, applicant filed a compliance update marking this condition as “completed.” <https://luc.hawaii.gov/wp-content/uploads/2021/03/A89-649-Annual-Report-2020.pdf>²

Applicant’s consultant now states the “Proposed water use for the full buildout of the industrial Park is based on the existing demands on [PWS 238] and potential development plans,” and is expected to be “592,625 gpd.”

- *Please clarify the status of 100-acre ag park lease.*

¹ The lease was later amended to insure “additional water will be allocated to the agricultural park on the property in the future[,]” and the Lāna‘i Water Company, which is owned, operated and controlled by applicant, acknowledged that a reservation of 500,000 GPD “for the development of an agricultural park ... is in the Water Use and Development Plan” <https://lanaiwatercompany.com/wp-content/uploads/2017/01/WUDP-Provisions-Action-Plan-1-1-17-Final-2.pdf>.

² On 11/24/2021, however, DLNR Director Suzanne Case sent applicant a letter stating, among other things, that “to date, an agricultural park has not been established” and requesting a transfer of the lease to the COM pursuant to Resolution 21-54 of the Maui County Council, adopted 3/19/2021.

- *Please confirm whether the above estimate of existing and potential development demands on PWS 238 includes the water reserved for the 100-acre ag park.*
- *Using applicable county water standards, please confirm whether the above estimate includes water use for the 10-acre commercial parcel and the 15-acre light industrial parcel.*
- *If it does not include the above, please revise accordingly, and identify the source(s).*
- *Please specifically identify any additional projects noted in the Community Plan that will draw resource from PWS 237 or PWS 238 and how much water resource will be required.*

Ref. 438: The Akinaka Master Water Plan details improvements that will be required to support full buildout of the proposed industrial park.

- *Please provide calculations confirming that water required by 1) the lease agreement for the 100-acre ag park/500,000 GPD reservation for ag activities; 2) the 10-acre commercial parcel; and 3) the 15-acre light industrial parcel can also be accommodated by these improvements.*

Ref. 456 and 464: Applicant's consultants state, "The Akinaka report concluded that new well supply for the Manele Bay System of at least 426 gallons per minute (GPM) capacity will be required" and have identified a preferred site for required new water source, in the Leeward aquifer, where all existing wells, but one, are currently located.

- *Did these assessments and this recommendation incorporate the additional water demand needed for the 100-acre ag park and/or the 500,000 GPD referenced in the WUDP, and the 25 acres for commercial and light industrial use? If so, where in the EA do the supporting calculations appear?*
- *If it does not, please provide supporting calculations, and revise or amend.*
- *Once the missing calculations are incorporated, please confirm, with numerical support, a justification that developing a new water resource from the Windward aquifer is not needed.*

Thank you for your consideration of the above.

/s/ Sally Kaye
P.O. Box 631313
Lānaʻi City, HI 96763
skaye@runbox.com



MUNEKIYO HIRAGA

Planning, Project Management, Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT

Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT

Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
SENIOR ADVISOR

February 7, 2022

Via email: skaye@runbox.com

Sally Kaye
P. O. Box 631313
Lānaʻi City, HI 96763

**SUBJECT: 2nd Draft Environmental Assessment for Proposed Miki Basin
Industrial Park at TMK (2)4-9-002:061, Lānaʻi, Maui, Hawaiʻi**

Dear Ms. Kaye:

Thank for your email dated December 22, 2021, regarding the 2nd Draft Environmental Assessment (EA) for the subject project. On behalf of Lānaʻi Resorts LLC, a Hawaiʻi Limited Liability Company, doing business (dba) as Pūlama Lānaʻi (Applicant), we appreciate you taking the time to provide us comments on this 200-acre master-planned light and heavy industrial development.

On behalf of the Applicant, we offer the following responses to your comments which are presented in **Exhibit A**, herein.

We appreciate your input and will include a copy of your comment letter and this response in the Final EA. Should you have any questions or require further information regarding the proposed project, please contact me at (808) 244-2015, extension 221.

Very truly yours,

Chris Sugidono
Senior Associate

CEJS:ab

cc: Scott Derrickson, State Land Use Commission
Keiki-Pua Dancil, Pūlama Lānaʻi
Calvert Chipchase, Cades Schutte

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Comment No. 1:

Ref. 29: The applicant states that “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. Over the initial 10-year development period, the estimated development cost for the Miki Basin Industrial Park is \$78.8 million.”

- (A) *Please confirm the concrete recycling, rock crushing and asphalt plants are each owned/operated by the applicant, and explain why they are being relocated from their current locations.*
- (B) *Please provide an estimate of how much of the initial \$78.8 million development cost will be borne by new industrial users.*
- (C) *Please indicate what plans exist, if any, for the buildings that currently house the industrial uses planned for relocation.*

Response:

- (A) The concrete recycling, rock crushing and asphalt plants are owned by the applicant. Per the Community Plan, the applicant is relocating like uses (Urban District) to the Miki Basin area near other Urban uses, such as the HECO fossil fuel facility, Lānaʻi Airport, and Miki 20 acre Industrial Park.
- (B) Construction expenditures by industrial users will include an estimated \$43.8 million for renewable energy, plus \$22.8 million for buildings (see page REF-408, Table III-2 of the report on economic impacts of the proposed Miki Basin Industrial Park (see Appendix F of EA, starting on page REF-391 of the Draft EA).
- (C) Planned uses that will be relocated are the concrete recycling, rock crushing and asphalt plants. There are no building plans that exist at this time. It should be noted that majority of these uses are not “housed” in a building.

Comment No. 2:

Ref. 29: The applicant states that “Full buildout of the proposed 200-acre Miki Basin Industrial Park will be developed incrementally over a period of 20 years,” but (Ref. 134) the LUC “requires that projects seeking reclassification be substantially completed within ten years or seek incremental approvals, pursuant to HAR § 15-15-50.”

- (A) *Please identify what steps the applicant will have to take and approvals required if the development extends beyond 10 years.*

Response:

- (A) During the initial 10-year development period, the proposed Miki Basin Industrial Park will be “substantially completed.” This period 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. While other new industrial uses will be implemented throughout the duration of the full 20-year development period, it only accounts for 26 acres of the total 200-acre project. It should also be noted that other new industrial uses will be implemented during the initial 10-year period, with some possibly added later in the development process. Because the project will be substantially complete within 10 years, with the majority of the project area developed, the Applicant will not seek incremental approvals from the LUC.

Comment No. 3:

Ref. 43: The AIS recommended that a data recovery plan be developed for Sites 50-40-98-1980 and 50-40-98-1981, and the plan be implemented prior to proposed construction activities within the parcel.

- (A) *Please indicate when this data recovery plan will be implemented.*

Response:

- (A) The data recovery plan was developed and will be submitted to the State Historic Preservation Division (SHPD) imminently.

Comment No. 4:

Ref. 46: “There are no major sources of air pollution in the immediate vicinity and vehicular traffic volumes are low.”

- (A) *Please provide any information available on pollution emanating from the MECO power plant and the Lana'i airport.*

Response:

- (A) 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. However, *HECO is required to provide data from its stationary generating stations to the DOH CAB. The HECO data is not readily available for Lāna'i and provided only in aggregate by County.*¹

While airplane exhaust from landing and departing aircrafts and emissions from the HECO power plant may affect the surrounding area, air quality in the region is generally good due to the prevailing trade winds.

Comment No. 5:

Ref. 46: "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."

Ref. 47: "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 Lanai Water Company."

- (A) *Please confirm that the water use referenced above will be metered and will exclusively use brackish water. If not, please explain why not.*

Response:

- (A) Upon relocation to the Miki 200 Industrial Park, the applicant will have a water meter installed by Lāna'i Water Company. The applicant will pay for the services provided by Lāna'i Water Company.

Although there is no requirement to use brackish water, the applicant will make its best effort to use brackish water, if available and applicable. For example, there may be issues with the use of brackish water on construction equipment (e.g., salt content in brackish water may cause issues that may

¹ See https://s2.q4cdn.com/268623243/files/doc_downloads/2021/HEI_ESG_2021_R8.pdf, starting on page 53 of 71 in the PDF document online.

compromise the integrity of construction equipment, which subsequently may cause safety concerns).

Comment No. 6:

Ref. 53: *The applicant “will provide or finance its fair share of infrastructure and facilities to support the project.*

- (A) *How will applicant’s “fair share” of infrastructure and facility costs be determined, and who or what will provide the balance of the infrastructure and facilities support costs? How does applicant envision apportioning these costs?*

Response:

- (A) Regarding the relocation of existing uses into the Miki 200 Industrial Park (i.e., concrete crushing facility and related activities and asphalt plant), the applicant will cover the infrastructure costs necessary to support the development and operation of these relocated existing uses.

If the applicant leases an area within the Miki 200 Industrial Park, the leasee would be responsible for infrastructure within the leased area.

If the applicant develops an area within the Miki 200 Industrial Park for its own use, the applicant will develop the infrastructure to support the area and its permitted uses.

Comment No. 7:

Ref. 56: *A large portion of the 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.”*

- (A) *Please confirm that at this time the 127 acres are designated solely for solar/storage.*
- (B) *If not, please identify any additional renewable energy sources planned or anticipated.*
- (C) *Please clarify if the applicant has any role in this process, aside from acting as landlord to a potential developer.*

- (D) *If the PUC fails to approve a solar+ storage project submitted in Docket 2015-0389, does the applicant have other option(s) for renewables in this space? If not, how will the acres be used?*

Response:

- (A) At this time, the 127 acres have been assigned to renewable energy projects, which include but are not limited to photovoltaic and battery energy storage technologies. It should be noted that the renewable energy project² that will be developed within the next five years will be based on photovoltaic and battery energy storage technologies.
- (B) It is impossible to predict exactly what type of renewable technologies will be implemented in the future to meet the State's goal of 100% RPS by 2045.
- (C) At the time of this response, the applicant's role in the renewable energy project is as landowner to a potential developer.
- (D) Projects will vary in size, depending on the project plan layout determined by the developers. The 127 acres have been set aside to meet the current needs in PUC Docket No. 2015-0389 and to accommodate future renewable energy requirements, as there is a State goal to reach 100% Renewable Portfolio Standards (RPS) by 2045. The current energy procurement in Docket 2015-0389 is estimated to reach approximately 95% renewable energy for Lāna'i.

The site is the most ideal location for the development of a renewable energy project because it is co-located next to the HECO fossil fuel facility, which is where the interconnection location has been identified by HECO. If there is a need to accommodate permitted uses in the area, those permitted uses are allowed to be located in the 127 acre area.³

Comment No. 8:

Ref. 71: "It is expected that there will be a need for industrial zoned lands on the island of Lanai, considering there is none available presently."

The 1998 Lāna'i Community Plan included 20 acres to be set aside at Miki Basin for industrial use so both the company's (Castle & Cooke at that time) as well as individual residents' industrial uses could be relocated out of the city, and in September, 2000, 13.9 acres of former Ag land was conditionally rezoned for this purpose by Ordinance No. 2895; 10 conditions were

² See Public Utilities Commission (PUC) Docket No. 2015-0389 for more information.

³ See Maui County Code (MCC) 19.24 M-1 Light Industrial District and 19.26 M-2 Heavy Industrial District.

attached, the first was that “50% of the land zoned M-2 Heavy Industrial shall be offered in fee.”

- (A) *Please explain why this has not occurred, why the 20 industrial acres identified for fee simple sale 21 years ago have not yet been offered for sale, and detail where it is in the process of being offered.*
- (B) *In light of the delay in addressing the claimed industrial “needs,” which were acknowledged 21 years ago and again in this draft EA, please justify why more acreage is needed at this time, aside from the 127 acres designated for renewables.*
- (C) *The applicant stated at the 12.15.2021 Lānaʻi Planning Commission meeting that the 20 acres subject to the condominium regime have been rezoned from ag to industrial. Please confirm the date this rezoning was effective.*

Response:

- (A) It is noted that the Miki 20 acre Industrial Park that is referenced in **Comment #8(A)**, is not part of the Miki 200 acre Industrial Park project site. It is however, located adjacent to each other.

The applicant provided the Lānaʻi Planning Commission (LPC) a status on the Miki 20 Industrial Park via a letter dated March 12, 2021. The letter was included on the April 21, 2021 LPC Agenda as item E1.⁴

The information provided here will supersede the information in the letter with updates over the last eight months, provided herein.

On November 23, 2021, HDOT-A signed the Memorandum of Agreement (MOA) and Joinder. This was a critical step in the process, as the Land Court Subdivision Approval could not be completed until the MOA was executed. On or before December 7, 2021, the Amended and Restated Petition had been filed with the Land Court, which included the executed MOA and Joinder.⁵

Here is a summary of the remaining steps in the process to offer the land for sale:

⁴ https://www.mauicounty.gov/DocumentCenter/View/126430/042121_Item-E1_Status-Miki-Basin-CPR-Project---Pulama-Lanai-Memo

⁵ We were informed via email by our counsel that the Amended and Restated Petition, which included the HDOT-A signed MOA and Joinder were filed with the Land Court.

Land use and construction approvals needed for completion of development	Application number	Estimated completion	Status or notes for future necessary steps
<u>Land Court Subdivision Approval</u> <i>Agency:</i> Land Court, State of Hawai'i, and Department of Accounting and General Services, State of Hawai'i (Land Survey Division)	Land Court Consolidation No. 231	60 days after execution of HDOTA MOA (executed on November 23, 2021)	<ul style="list-style-type: none"> Initial subdivision petition submitted to Land Court in March 2018. Comments on initial subdivision petition received from Land Court in April 2019. Land Court requires a restated subdivision to be submitted with HDOTA signing/joining the restated subdivision petition. HDOTA signed Joinder, MOA, ROE.
<u>Condominium Property Regime (CPR) Documents</u> <i>Agency:</i> None	N/A	30 days after receipt of Land Court Subdivision Approval	<ul style="list-style-type: none"> Draft CPR documents have been prepared, but still need to be recorded in Land Court. Land Court subdivision approval needs to be completed before the CPR documents can be recorded.
<u>Developer's Public Report</u> <i>Agency:</i> Department of Commerce and Consumer Affairs, State of Hawai'i (Real Estate Commission/Real Estate Branch)	N/A	90 days after recordation of CPR Documents	<ul style="list-style-type: none"> Once the CPR documents are recorded, Developer must file a Developer's Public Report to disclose pertinent information regarding the project to prospective purchasers. An "Effective Date" for the Developer's Public Report must be issued by the Real Estate Commission before units can be sold.

- (B) See response to **Comment #1(A)** regarding the 27 acres of relocation of existing urban uses, which include the concrete crushing operations (14.5 acres) and the asphalt facility (12.5 acres).

Ten percent of the project area, 20 acres, is set aside for infrastructure.

The remaining 26 acres have been identified for "other" new industrial uses. See REF-27 of the Draft EA for more discussion on the identification of needs regarding implementation of the Community Plan.

The Community Plan set aside the area in the Miki Basin (225 acres)⁶ for Heavy and Light Industrial Use. Due to the lengthy process to re-zone land at the State and County level, it is prudent to ensure that there is enough land available for future uses. Although there are no details on specific

⁶ Miki Basin includes 225 acres of Heavy and Light Industrial use in the Lāna'i Community Plan. The breakdown includes the following: five acres for the HECO fossil fuel facility, 20 acres for the Miki 20 acre Industrial Park, and 200 acres for the Miki 200 acre Industrial Park.

projects, the additional 26 acres will be used for heavy or light industrial uses in the future.⁷

- (C) This information was provided in the letter to the LPC on March 12, 2021 (see response to **Comment #8(A)**).

See Maui County Ordinances 2894 (2000), 2895 (2000), 4046 (2013), and 4047 (2013).

The County of Maui processed Change in Zoning ordinances for the 20-acre Miki Basin Industrial Condominium, a portion of which became effective September 20, 2000,⁸ and the remaining June 26, 2013.⁹ See Maui County Ordinances 2894 (2000), 2895 (2000), 4046 (2013), and 4047 (2013).

Comment No. 9:

Ref. 178: "This project [the Miki Basin 20-acre condominium development] is anticipated to be subdivided into 31 lots in accordance with County requirements, but the Land Court has yet to approve the subdivision. A petition to the Land Court for approval was submitted in 2018, but which was later amended to include the Hawaii Department of Transportation due to a public road over an easement which runs in part through a portion of the Lanai Airport property. The petition is under review by a Deputy Attorney General." (Market Assessment, dated September, 2021.)

- (A) *Please confirm whether the petition is still under review and explain why the review process has not been completed.*

Response:

- (A) For details on the process and timelines for each step, see response to **Comment #8(A)**. It should be noted that responses from the applicant¹⁰ during the process were timely.

Comment No. 10:

Ref. 84: "The project strengthens the state's economy through [] long-term opportunities in industrial and renewable energy industries."

⁷ See Maui County Code (MCC) 19.24 M-1 Light Industrial District and MCC 19.26 M-2 Heavy Industrial District.

⁸ <https://www.mauicounty.gov/DocumentCenter/View/82756/Ord-2895>

⁹ <https://www.mauicounty.gov/DocumentCenter/View/86733/Ord-4047>

¹⁰ It should further be noted that applicant has been involved since 2012. Any action before 2012 were undertaken by previous owner.

- (A) *Please detail the long-term opportunities envisioned to be provided by renewable energy industries.*

Response:

- (A) Solar energy, is not dependent on outside market forces. Reducing our reliance on fossil fuel sources, which are volatile and highly dependent on variables that are not within the control of the applicant or the State, and replacing them with stable long-term renewable energy contracts, will provide stability and provide potential long-term opportunities.

Energy costs are a significant portion of operating expenses. A stable and predictable expense provides the applicant with more confidence to evaluate long-term opportunities.

Comment No. 11:

Ref. 86: "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."

Ref. 112-113: "Construction of the industrial park will allow existing industrial facilities currently scattered in business and residential areas in Lana'i City to relocate to more appropriate locations having the infrastructure and buffers necessary for industrial uses."

- (A) *Please identify the existing "scattered" industrial uses referenced above that are envisioned to be relocated, both those that are operated or controlled by the applicant and those that are not.*

Response:

- (A) The Applicant plans to relocate its existing asphalt plant from its current location near Kaumālapa'u Harbor, as well as relocate its existing concrete recycling and rock crushing operation near Mānele Project District and Miki 20 acre location to the proposed Miki 200 acre Industrial Park project location. It is not known which specific businesses may request or apply to relocate to the Miki 200 acre Industrial Park, but the Applicant will discuss with interested entities. See response to **Comment #20(A)** for more details.

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.

Comment No. 12:

Ref. 98: *“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.”*

Ref. 437: *“Pulama Lana‘i has submitted a Special Use Permit to the County of Maui Planning Department for the relocation of the interim industrial uses.”*

- (A) *Please confirm whether the CUP referenced above is the one applied for on 8/16/2021.*

Response:

- (A) Please see the hyperlink¹¹ to the September 15, 2021 LPC meeting, item E1: Open Lāna‘i Applications Report, page 1 of 2 (Miki Basin Interim Industrial Uses Special Use Permit Application SUP2 20210008). The application was entered into KIVA on August 16, 2021.

Comment No. 13:

Ref. 115: *“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.”*

- (A) *Please confirm it is the applicant’s intent that approximately 63% of the 200 acres will be dedicated to the planned solar+ storage, 10% will be dedicated to supporting infrastructure, 13% is made available to new industrial uses, and applicant is reserving the balance, 27 acres or 13.5%, for its own use.*

¹¹ <https://www.mauicounty.gov/ArchiveCenter/ViewFile/Item/28499>

Response:

- (A) Please see the table below for a summary. It should be noted that “other new industrial uses” may or may not be for applicant use.

Use Description	# of acres	% of total acres in subject application
Renewable Energy	127	64%
Infrastructure	20	10%
Relocation of existing asphalt plant	12.5	6%
Relocation of existing concrete recycling and rock crushing operation	14.5	7%
Other new industrial uses	26	13%
Total	200	100%

Comment No. 14:

Ref. 116: “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.”

- (A) Please discuss in detail the “additional planning” that occurred.

Response:

- (A) Since the publication of the 2019 Draft EA, the Applicant has refined its plans for the proposed Miki 200 Acre Industrial Park. This includes the identification of 127 acres for renewable energy projects, 20 acres for infrastructure purposes, 12.5 acres for the relocation of its existing asphalt plant, and 26 acres for new industrial uses. An additional 14.5 acres is also planned for the relocation of its existing concrete recycling and rock crushing operation, and for the storage and stockpiling of aggregate and construction materials.

The further detailed plans also included updates to a number of technical studies that were provided in the 2nd Draft EA. Updates were made to the Market Assessment; Economic, Population, and Fiscal Impacts Report; Traffic Impact Analysis Report; Water Master Plan; New Well Supply

Alternative study; Wastewater Master Plan; Drainage Report; and Cultural Impact Assessment.

Comment No. 15:

Ref. 129: “A prior [LUC] docket, A89-649 Manele 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 [the applicant’s] proposed development.” (LUC Ltr., 11/19/2018)

- (A) Please explain why the above comment from the LUC was not addressed in the EA and provide the discussion requested.
- (B) In addition, please provide an update of the progress of these commitments to transfer the 15-acre and 10-acre parcels.

Response:

- (A) Regarding LUC Docket No. A89-649 Manele Golf Course, Condition 1, please visit the following hyperlink, <https://luc.hawaii.gov/wp-content/uploads/2021/03/A89-649-Annual-Report-2020.pdf>, for the status report filed to the Land Use Commission for calendar year 2020.

The text below is extracted from the status report for convenience:

The Petitioner has complied with Condition 1 in that it did "...make available to the State" the real property described in this condition, under the terms stated in this condition.

By letter dated September 27, 2010, the State Department of Land and Natural Resources (DLNR) notified Petitioner that (1) the State of Hawaii has not secured the necessary appropriation to fund processing of approvals required to complete the conveyance, (2) the State of Hawaii still desires to accept the sites, and (3) the Department of Hawaiian Home Lands (DHHL) recently expressed to the State Office of Planning and DLNR that DHHL is interested in accepting the lands from Petitioner on behalf of the State of Hawaii, subject to proper credit to the settlement pursuant to Act 14, Special Session Laws of Hawaii 1995, as well as DLNR and Hawaiian Homes Commission approvals.

There is no pending action by the applicant to transfer the lands at this time. The transfer of the lands cannot be completed until the subdivision application process has been completed, by DHHL. The applicant is in regular communication with DHHL and awaits the approval of the subdivision application.

The 10 acre and 15 acre parcels that have been made available to the State are not within the subject project area of the Miki 200 Industrial Park, nor are they located in the Miki Basin area. Further, DHHL has not shared their development plans with the applicant or their constituents on Lānaʻi for the 10 acre or 15 acre parcels. Due to the unknown development plans for the 10 acre and 15 acre parcels, it was not addressed in the EA.

- (B) See response to **Comment #15(A)**.

Comment No. 16:

Ref. 134: *“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.” (SOP Ltr. 11/2018.)*

- (A) *Please indicate where in the draft EA the above requested phase schedule and maps appear.*
- (B) *If they have not been prepared, please provide, indicating what physical portions of the 200 acres are envisioned to be part of the first 10-year phase of development.*

Response:

- (A) The development timeline was included on page REF-29 of the Draft EA, Section F: PROJECT COST AND TIME SCHEDULE. The conceptual site plan was included on page REF-28 and organized by identified use type (i.e., Heavy or Light Industrial use). The graphic below provides a summary by the identification of use type (page REF-28), proposed uses, and timeline (page REF-29) and will be included in the Final EA.

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

(B) See response to **Comment #16(A)**.

Comment No. 17:

Ref. 135: "Glint/Glare Hazards, Airport Airspace analysis (iOE/AAA), Combined Federal Regulation CFR Part 77 (e-CFR format) Current as of December 15, 2015."

(A) Please discuss what measures will be taken to avoid hazardous glare that will emanate from the proposed solar plus storage acreage, and identify which party will be responsible for taking such measures.

Response:

(A) The renewable energy developer will be responsible for complying with all Federal, State, and County regulations regarding the development of solar projects near the airport.

Comment No. 18:

Ref. 161: “We also recommend a discussion of the consistency of this current proposal for the Miki Basin Industrial Park with the projected buildout described in the 2011 Lanai Water Use and Development Plan.” (CWRM Ltr., 12/17/2019.)

- (A) Please identify where in the draft EA this discussion appears. If it is not provided, please provide.

Response:

- (A) The 2011 Lanai Water Use and Development Plan included various projects, some of which have no development plans or development plans have changed. The response to **Comment #23(D)** provides 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 or have been provided a reservation (see REF-66).

Comment No. 19:

Ref. 173: “Regarding market feasibility, commitments are in place for 174 acres (87%) of the Project area. An additional 7.6 acres for ‘typical industrial activities’ will increase the projected demand to 181.6 acres (91%) by 2030.”

- (A) Please specifically identify who or what entities have made commitments for the 174 acres.

Response:

- (A) Please see the table below for a summary.

Use Description	# of acres	Commitments
Renewable Energy	127	Developer to be selected in 2022 by HECO’s request for proposal
Infrastructure	20	shared commitments
Relocation of existing asphalt plant	12.5	Pūlama Lāna’i
Relocation of existing concrete recycling and rock crushing operation	14.5	Pūlama Lāna’i
Other new industrial uses	26	TBD

Comment No. 20:

Ref. 180: *“A pent-up demand for industrial land and industrial space to accommodate ‘typical industrial activities’ is readily apparent on Lanai. Many businesses in Lanai City are operated from homes, partly because there are no industrial parks on Lanai that serve small scale tenants. Yards and rooms are used for operations and to store equipment and supplies.”*

- (A) *Please specifically identify which businesses are referenced above to support the claim of “pent-up demand,” and explain the cost structure that will allow these small-scale tenants to be able to afford to relocate to the industrial park.*

Response:

- (A) Please see page REF-180 for some of the industrial activities that are listed on and described as industrial activities that could or are likely to develop at Miki 200 that are currently operating out of residential homes or vehicles. Rents will be determined by market rates at the time of interest.

Comment No. 21:

Ref. 180: *“Fruit and vegetable processing, possibly with a shared commercial kitchen.”*

- (A) *The above is listed as “likely” to develop at Miki. Please explain how this would differ from, and would not duplicate, what Sensei Farms is currently offering.*

Response:

- (A) Currently, Sensei Farms is not operating a commercial kitchen for fruit and vegetable processing. A facility to process value added products from fruit and vegetables, such as a processing facility or shared commercial kitchen, is a permitted use in light industrial areas according to Maui County Code (MCC) 19.24 M-1 Light Industrial District.

Comment No. 22:

Ref. 208: “A special effort was made to look for evidence indicating the presence of ope‘ape‘a, or Hawaiian hoary bat, by conducting an evening survey at two (2) locations within the project area.”

- (A) Please provide details of this survey, was it a one-time effort? Over what period of time and on what dates? At which locations?

Response:

- (A) The author, Bob Hobdy, provided the following response to Comment 22:

On April 13 & 14, 2018 an environmental survey was conducted on the 200 acre Miki Basin Industrial Development Project on Lāna‘i to assess the flora and fauna resources. One component of this survey was conducted during the evening hours to ascertain any presence of the endangered Hawaiian hoary bat. A bat detector (Batbox IIID) was employed, set to the frequency of 27,000 Hertz which these bats are known to emit when echo-locating for nocturnal flying insects on which they feed. The survey was conducted at two (2) locations, one in the center of the project area and another near the southern boundary. No bats were detected at either location with this device. These bats are rare on Lāna‘i and have only been detected in the summit forests on Lāna‘i.

Comment No. 23:

Ref. 438: On 7/15/1994 the former landowner signed a lease with the state for a 100-acre agricultural park, to be located near the proposed industrial park, that provides for an average of .20 MGD of water. On 6/4/2018, applicant filed a compliance update with the LUC indicating that the land had been leased to the state, <https://luc.hawaii.gov/wp-content/uploads/2018/06/LUC-Manele-2017-Annual-Report-Docket-A89-649.pdf>, and on 3/5/ 2021, applicant filed a compliance update marking this condition as “completed.” <https://luc.hawaii.gov/wp-content/uploads/2021/03/A89-649-Annual-Report-2020.pdf2>

Applicant’s consultant now states the “Proposed water use for the full buildout of the industrial Park is based on the existing demands on [PWS 238] and potential development plans,” and is expected to be “592,625 gpd.”

- (A) Please clarify the status of 100-acre ag park lease.

- (B) *Please confirm whether the above estimate of existing and potential development demands on PWS 238 includes the water reserved for the 100-acre ag park.*
- (C) *Using applicable county water standards, please confirm whether the above estimate includes water use for the 10-acre commercial parcel and the 15-acre light industrial parcel.*
- (D) *If it does not include the above, please revise accordingly, and identify the source(s).*
- (E) *Please specifically identify any additional projects noted in the Community Plan that will draw resource from PWS 237 or PWS 238 and how much water resource will be required.*

Response:

- (A) The 100-acre State Ag Park is not located within the Miki 200 Industrial Park. The lease for the 100 acre State Ag Park was executed on July 15, 1994 and amended on November 28, 1994. To date, there has been no development by the State on the 100 acre parcel.
- (B) The water master plan starting on REF-435 of the Draft EA does not include the water reservation for the 100 acre State Ag Park. It is noted that the lease executed includes a 0.200 MGD water reservation;¹² however, the Lānaʻi Water Use and Development Plan references 0.500 MGD (see **Comment #25 (A)**).

The amended lease¹³ includes language in Section 19 to read as such:

...the parties further agree that additional water will be allocated to the agricultural park on the property in the future, but that the need for such additional water will be the Lessee's responsibility to justify and that any costs incurred for this additional water will be borne by Lessee.

To date the leasee has not justified an increase in additional water, and there has been no action by the State to develop its 100 acre ag park. Because there has been no action by the State for 28 years to develop the State Ag Park, the Water Master Plan included in the EA did not include the water reservation for the State Ag Park.

¹² Document No. 2165943, filed on July 21, 1994, Section F (19) Water Development.

¹³ Document No. 2199103, filed on November 28, 1994, Amendment 1.

- (C) The water master plan starting on REF-435 does not include the estimated demand for the 10-acre commercial parcel or the 15-acre light industrial parcel.

Development plans for the 10 acre or 15 acre parcel have not been disclosed (see response to **Comment #15(A)**).

- (D) As stated in response to **Comment #23(B)**, the leasee has not justified an increase in additional water and there has been no action by the State to develop its 100-acre ag park.

- (E) The applicant has included the water demand for projects that have been submitted or approved in the entitlement and permitting processes.

The Community Plan includes numerous projects, many of which have no development plans or development plans have changed. The graphic on REF-66 of the Draft EA provides a reasonable projected water demand.

Comment No. 24:

Ref. 438: The Akinaka Master Water Plan details improvements that will be required to support full buildout of the proposed industrial park.

- (A) *Please provide calculations confirming that water required by 1) the lease agreement for the 100-acre ag park/500,000 GPD reservation for ag activities; 2) the 10-acre commercial parcel; and 3) the 15-acre light industrial parcel can also be accommodated by these improvements.*

Response:

- (A) See response to **Comment #23(C) and (D)**.

Comment No. 25:

Ref. 456 and 464: Applicant's consultants state, "The Akinaka report concluded that new well supply for the Manele Bay System of at least 426 gallons per minute (GPM) capacity will be required" and have identified a preferred site for required new water source, in the Leeward aquifer, where all existing wells, but one, are currently located.

- (A) *Did these assessments and this recommendation incorporate the additional water demand needed for the 100-acre ag park and/or the 500,000 GPD referenced in the WUDP, and the 25 acres for*

commercial and light industrial use? If so, where in the EA do the supporting calculations appear?

- (B) *If it does not, please provide supporting calculations, and revise or amend.*
- (C) *Once the missing calculations are incorporated, please confirm, with numerical support, a justification that developing a new water resource from the Windward aquifer is not needed.*

Response:

- (A) See response to **Comment #23(B), (C), and (D)**.
- (B) See response to **Comment #25(A)**.
- (C) See response to **Comment #25(A)**.

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**MARKET
ASSESSMENT**

APPENDIX

A

MIKI BASIN INDUSTRIAL PARK:
MARKET ASSESSMENT

PREPARED FOR:
Pūlama Lāna‘i

PREPARED BY:
Plasch Econ Pacific LLC

September 2021

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EXECUTIVE SUMMARY

1. PROJECT DESCRIPTION

The Miki Basin Industrial Park (the **Project** or **Miki 200**) is a proposed master-planned development on a 200-acre centrally located site in the Miki Basin area on the island of Lānaʻi, Hawaiʻi. Consistent with the Lānaʻi Community Plan, Miki 200 will include 100 acres designated Light Industrial and 100 acres designated Heavy Industrial. It will be Lānaʻi's first large-scale industrial park. Lot sizes may range from less than a half-acre to 20 acres or more. Also, rental space may be available in industrial buildings if built. Infrastructure may include internal roads, water, power, sewers, drainage, etc.

Miki 200 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.

2. PROJECTED SUPPLY AND USE OF INDUSTRIAL LAND

The future supply and use of industrial land on Lānaʻi is projected to be as follows:

	<u>Acres</u>
— Miki 200 (proposed)	
• Committed	
+ Infrastructure	20.0
+ Renewable energy	127.0
+ Concrete/rock-crushing facility	14.5
+ Asphalt plant	12.5
• Typical industrial activities	7.6
• Vacant (projected development after 2030)	<u>18.4</u>
• Total Miki 200	200.0
— Existing Industrial Projects (acreage includes infrastructure):	
Pūlama Lānaʻi Central Services, Miki 20, HECO, and	
Kaumalapau Harbor	
• Currently used (excludes 1.6 acres in temporary use)	21.9
• Available in the future, pending a Land Court Subdivision	
Approval	<u>11.6</u>
• Total Existing Industrial Land	33.5
— Total Industrial Land, Proposed and Existing	233.5

ES-1

3. MARKET FOR MIKI 200

Miki 200 will provide much needed industrial land on Lānaʻi, and a much needed industrial park. Currently, vacant industrial land is not available on the island.

Regarding market feasibility, commitments are in place for 174 acres (87%) of the Project area. An additional 7.6 acres for “typical industrial activities” will increase the projected demand to 181.6 acres (91%) by 2030. About 18.4 acres at Miki 200 will accommodate the demand for industrial land beyond 2030. More importantly, this acreage will provide industrial land approved for development and may have major infrastructure in order to take immediate advantage of any new economic opportunities which may arise, thereby diversifying Lānaʻi's economy.

MIKI BASIN INDUSTRIAL PARK: MARKET ASSESSMENT

PART I: INTRODUCTION AND PROPOSED PROJECT

1. INTRODUCTION

a. Content and Purpose

Miki Basin Industrial Park (the **Project** or **Miki 200**) is a proposed master-planned development on a 200-acre site located in the Miki Basin area on the island of Lānaʻi, Hawaiʻi. This report addresses the anticipated market for the Project. Its purpose is to provide the community, State of Hawaiʻi (**State**) officials and County of Maui (**County**) officials with relevant information about the market on Lānaʻi for an industrial park.

b. Methodology

The market assessment covers:

- The existing supply of industrial land on Lānaʻi based on an inventory of industrial land on Lānaʻi.
- Market conditions for industrial land on Lānaʻi.
- The anticipated demand for industrial land based on committed and anticipated uses. Committed uses were provided by Pūlama Lānaʻi. Anticipated uses are based on per-capita space requirements.

Socio-economic conditions on Lānaʻi are also provided in order to provide insight into possible adjustments to the demand for industrial land. Information is provided on Lānaʻi's population, housing, incomes, education, economic activities, employment and labor force. Data were obtained from the 2010 census by the U.S. Census Bureau, and from the American Community Survey ("ACS"). The ACS is an ongoing survey that provides up-to-date information about the nation's population. The ACS includes questions that were not included in the 2010 decennial census but were included in the 2000 census. The most up-to-date available data from the ACS are five-year estimates from 2015-2019.

Dollar amounts are expressed in terms of 2019 purchasing power and market conditions, thereby reflecting conditions prior to COVID-19. Dollar amounts after 2019 are not increased to account for inflation, appreciation in property values, or changes in market conditions.

c. Organization of the Report

The report is divided into three Parts:

- Part I: Introduction and Proposed Project
- Part II: Lānaʻi's Economy and Socio-Economic Conditions
- Part III: Market for Industrial Land

All Figures in this report are embedded in the text, while all tables are at the end.

d. Economic Consultant

The analysis was conducted by Plasch Econ Pacific LLC, a Hawaiʻi-based economic consulting firm specializing in economic development, land and housing economics, feasibility studies, valuations, market analysis, public policy analysis, and the economic and fiscal impacts of projects.

2. PROJECT OVERVIEW

a. Project Location

The Miki 200 will be centrally located on a 200-acre site in Miki Basin on the island of Lānaʻi, about 1 mile east of the Lānaʻi Airport terminal, 2.7 miles southwest of Lānaʻi City, and 3.7 miles east of Kaunapali Harbor (see Figures I-1 and I-2). The Tax Map Key (TMK) for the Project area is (2)4-9-002:061 (por.).

As shown in Figure I-3, the Project will abut (1) the Hawaiian Electric Company/Maui Electric Co. (**HECO**) power plant, and (2) the "Existing Industrial Condominium" (referred to as **Miki 20** since it is a 20-acre project in the Miki Basin).

b. Project Description

Consistent with the Lānaʻi Community Plan, Miki 200 will include 100 acres designated Light Industrial and 100 acres designated Heavy Industrial. It will be Lānaʻi's first large-scale industrial park. Lot sizes may range from less than a half-acre to 20 acres or more. Also, rental space may be available in industrial buildings if built. Infrastructure may include internal roads, water, power, sewers, drainage, etc.

Miki 200 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. Regarding the last point, it is important to have industrial land readily available and approved for development in order to take immediate advantage of any new economic opportunities which may arise.

c. Development Period

Following approval, most Project development is expected to occur over a period of about 10 years, but development could require more or less time, depending on the pace of future economic and population growth, market conditions and lot leases. About 9% of the land is expected to be developed after 2030 (see Subsection III.3.e).

d. Land Classifications and Required Approvals

Current land classifications of the Project Area and proposed changes are as follows:

- State Districts
 - Current: Agricultural
 - Proposed: Urban
- County Designations
 - Lānaʻi Community Plan
 - + Current: Light and Heavy Industrial
 - + Proposed: No change
 - Maui County Zoning
 - + Current: Agricultural
 - + Proposed: Light and Heavy Industrial

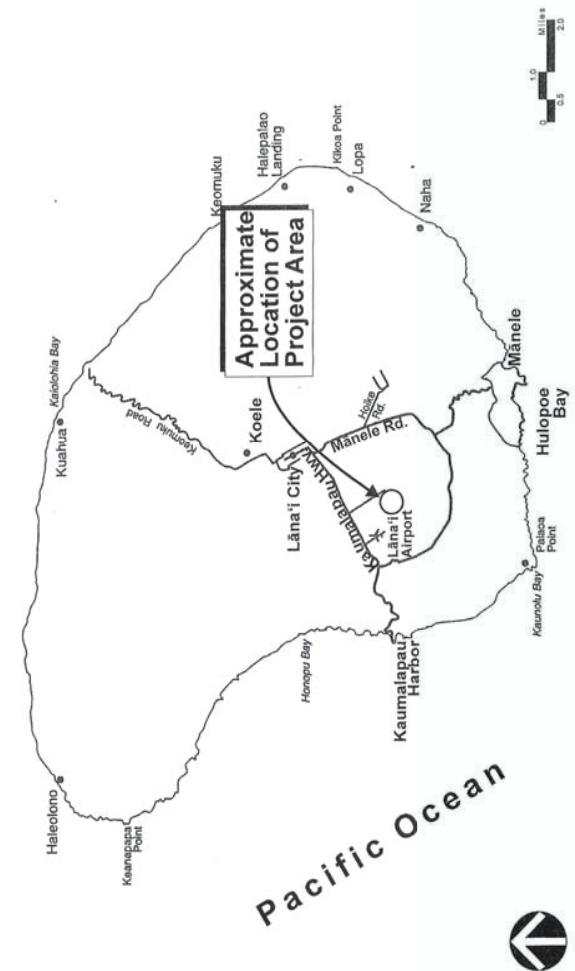


Figure I-1. Project Location, Lānaʻi

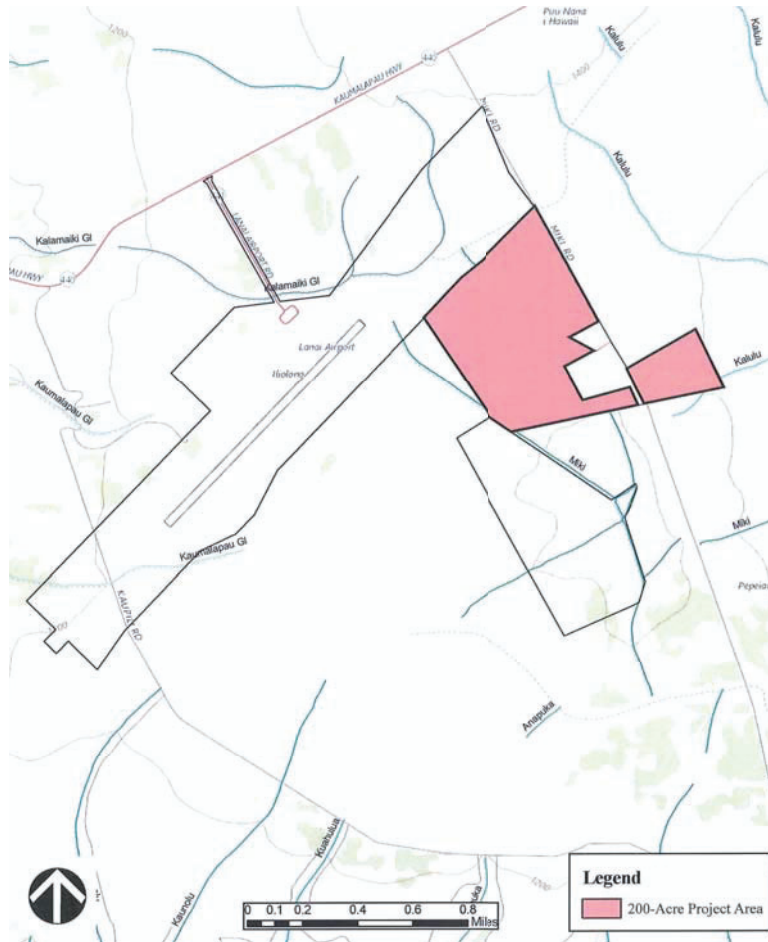


Figure I-2. Project Location, Miki Basin

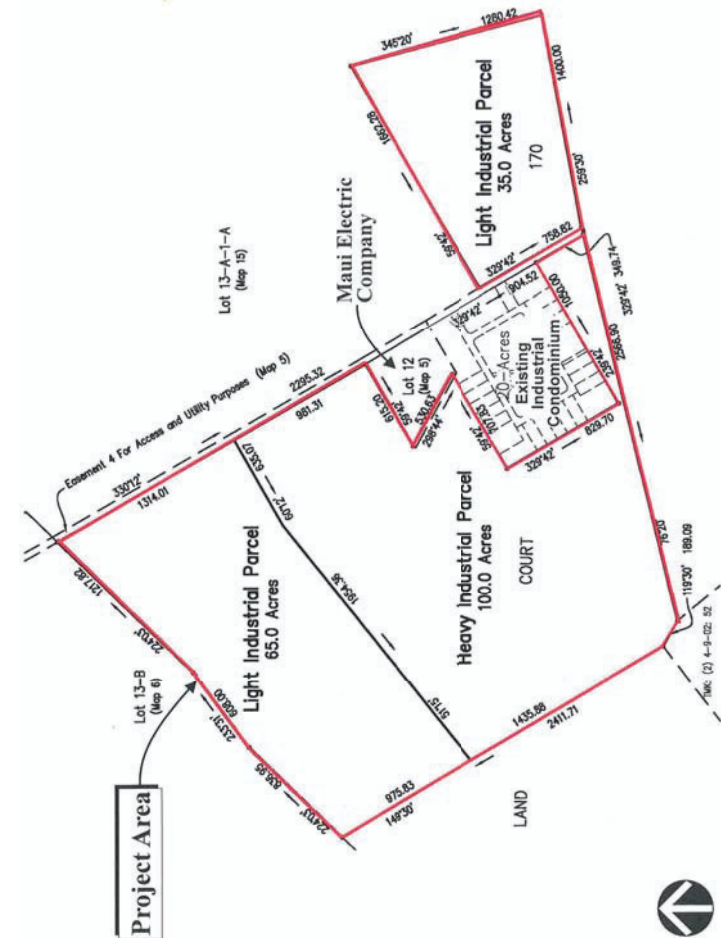


Figure I-3. Site Plan

PART II: LANAI'S ECONOMY AND SOCIO-ECONOMIC CONDITIONS

1. ECONOMIC OVERVIEW

From the 1920s to 1992, the primary economic activity on Lānaʻi was growing pineapple for the mainland canned-pineapple market.

Since the 1990s, the two resorts on Lānaʻi (Manele and Kōʻele) have been the primary driving forces for the economy. Manele and Kōʻele 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.

Other economic driving forces on Lānaʻi's include:

- Sensei Farms, a new hydroponic farm which exports fresh vegetables to markets throughout the Hawaiian Islands, and which employs about 50 workers.
- Government operations (schools, the airport, the harbors, police, fire, post office, etc.)
- Social security and retirement income paid to residents.
- Government income-support payments.
- Occasional construction activity for the building or renovation of hotels, homes, commercial and industrial buildings, government facilities, etc.

Except for the hotel an Manele, most commercial activities on the island are located in Lānaʻi City, including grocery stores, drug stores, restaurants, service stations, beauty salons, building suppliers, etc.

2. SOCIO-ECONOMIC CONDITIONS

Tables II-1 and II-2 summarize socio-economic conditions for County of Maui and Lānaʻi. The County consists of the islands of Maui, Lānaʻi, Molokaʻi, Kahoʻolawe, and Molokini. Except where stated otherwise, the estimates below were reported by the American Community Survey.

a. Population

Between 2015 and 2019, Lānaʻi had a resident population of approximately 2,730, or 1.64% of the County population of 165,979 residents. Residents include those who live full-

time or permanently in the County, and exclude visitors and part-time residents (i.e., those who live most of the time in a primary home located elsewhere).

Throughout most of the decade, the U.S. Census Bureau's five-year population estimate for Lānaʻi ranged from approximately 3,100 to 3,500 residents. However, in 2018 and 2019, the five-year estimate dipped below 3,000 residents. As noted above, the 2015-2019 five-year estimate was 2,730 people, which represents a 12.9% decrease from the 2010 population of 3,135 residents. Meanwhile, the population for the County as a whole has increased by 7.2% since 2010 (see Table II-1).

The Lānaʻi Community Plan, which was updated and approved by the Maui County Council in 2016, originally projected that an additional 885 residents will live on the island by the year 2030, for a total population of 4,020 (based on the County's Land Use Forecast produced in December 2012). The Lānaʻi Community Plan did note that increased economic activity and development plans on the island may result in the population growing beyond the original forecast of up to 6,000 residents.

Between 2015 and 2019, Asian residents comprised a higher proportion of the Lānaʻi population compared to the County as a whole: 53.4% of residents were estimated to be Asians compared to 29.3% for the County (Table II-1).

The resident profile of Lānaʻi is older than that of the County as a whole. The median age on Lānaʻi was about 49.0 years old between 2015 and 2019 compared to 41.2 years for the County.

b. Households

The average household size on Lānaʻi is estimated to be 2.31 people per household between 2015 and 2019—a decrease from 2.71 people per household in 2010 (Table II-1). On average, households on Lānaʻi are smaller than households for the County —3.00 people per household.

Approximately 59.8% of the households were estimated to be homeowners. Also, an estimated 63.1% of the households were family households.

c. Housing

Between 2015 and 2019, Lānaʻi had an estimated 1,549 housing units (Table II-1). This figure includes resort/residential units that were used as second homes, or were available for visitors, or were vacant. Approximately 23.8% of housing units were vacant, compared to 25.5% for the County.

Most residents live in Lānaʻi City in single family homes of less than 1,500 square feet on lots of about 6,000 square feet or less (Google Maps). According to the County tax records, many of the homes on Lānaʻi were built before 1940.

d. Income and Education

The mean household income on Lānaʻi between 2015 and 2019 was estimated at \$73,484, 39.8% lower than the County as a whole (Table II-2). Correspondingly, Lānaʻi had a lower per-capita income.

A slightly lower proportion of residents on Lānaʻi completed some secondary education compared to the County as a whole. An estimated 50.7% of Lānaʻi residents attended some college or received a higher education degree, compared to 60.8% of the residents for the County. About 67.2% of the households spoke only English at home, while 31.5% spoke Asian and Pacific Island languages.

3. ECONOMIC ROLE OF SHIPPING

Inasmuch as Lānaʻi is a small island with a small population and a small economy, few consumer and business goods are produced on the island. Instead, most goods must be imported by barge or airfreight from Honolulu. Barge service is weekly, but the service is canceled occasionally due to kona storms. Airfreight is available daily, but the capacity is low and the shipping rates are higher than the barge rates.

4. IMPLICATIONS TO THE DEMAND FOR INDUSTRIAL LAND

Economic development is needed on Lānaʻi in order to provide jobs and increase incomes for the residents. As mentioned above, the average household income on Lānaʻi is 39.8% lower than the County-wide average.

For both residents and businesses, Lānaʻi needs more storage space than other communities of similar size because most goods must be imported, and shipping is infrequent and occasionally unreliable. And for most residents, home storage is limited by the relatively small lots and homes.

PART III: MARKET FOR INDUSTRIAL LAND

1. SUPPLY OF INDUSTRIAL LAND

Currently, Lānaʻi has about 36.2 acres of industrial land of which about 2.7 acres are used for offices and other non-industrial activities, 23.5 acres are used for industrial activities. The supply of industrial land is as follows:

- Pūlama Lānaʻi Central Services: about 7.7 acres, 0 acres available

This project is located in Lānaʻi City at 13110 Fraser Avenue. About 2.7 acres are used for Pūlama Lānaʻi offices and other non-industrial activities, and about 5 acres are used for industrial activities, including a laundry for the hotels, food storage, and a maintenance warehouse. None of the land is available for additional industrial uses.

- Miki 20: about 20 acres, 10 acres available in the future

Miki 20 is an industrial condominium that abuts both the proposed Project and the HECO power plant (see Figure I-3).

This project is anticipated to be subdivided into 31 lots in accordance with County requirements, but the Land Court has yet to approve the subdivision. A petition to the Land Court for approval was submitted in 2018, but which was later amended to include the Hawaiʻi Department of Transportation due to a public road over an easement which runs in part through a portion of the Lānaʻi Airport property. The petition is under review by a Deputy Attorney General.

Currently, about 10 acres are being used for Pūlama Lānaʻi warehouses, Hawaiʻi Gas, Maui Disposal, equipment rentals by Sunbelt, and a concrete/rock crushing plant. The crushing plant involves a temporary use of 1.6 acres that will be relocated to Miki 200.

None of the land is currently available for additional industrial uses. However, about 10 acres will be available in the future, following subdivision approval by the Land Court. Lots encompassing half of Miki 20 will be offered for sale for various industrial activities. This translates to future land sales of about 9 acres, excluding roads and other common areas.

After the subdivision is approved by the Land Court, Miki 20 may evolve to become a small-scale industrial park hosting a variety of industrial tenants.

- HECO Power Plant: about 5 acres, 0 acres available

HECO's generating facilities are located on about 5 acres abutting the proposed Project and Miki 20 (see Figure I-3). None of this land is currently

available for industrial activities other than that used for HECO's generating facilities.

- Kaunalapau Harbor: about 3.5 acres, 0 acres available

About 3.5 acres of industrial land are located at Kaunalapau Harbor. None of this land is currently available for industrial activities other than harbor-related activities.

None of Lānaʻi's industrial land is currently available for additional industrial activities, but 10 additional acres will be available in the future pending subdivision of Miki 20 by the Land Court. Also, no land or building space is available as part of an industrial-park.

Miki 200 will increase the supply of industrial land by 200 acres, resulting in a total island-wide supply of about 233.5 acres of industrial land. This accounting excludes the 2.7 acres used for non-industrial activities at Pūlama Lānaʻi Central Services.

2. MARKET CONDITIONS

a. Annual Absorption of Industrial land

Except for Miki 20, there have been no significant changes in the supply of industrial land on Lānaʻi in decades. Even though subdivision of Miki 20 has yet to be approved by the Land Court, 10 acres of industrial uses were added in the previous decade as indicated above. Since there are no other industrial parks on Lānaʻi, there is no additional history of industrial-park land or building space absorption.

b. Vacancy Rates

All available industrial land on Lānaʻi is being used. Similarly, all available space within existing industrial buildings is used. Thus, the vacancy rates for industrial land and building space is essentially zero.

c. Industrial Land Sales and Values

There have been no recent sales of industrial lots on Lānaʻi, so price data are not available. However, the County assesses land values at market rates. For 2021, Pūlama Lānaʻi Central Services land was assessed at \$206,210 per acre. Given its location in Lānaʻi City, this value is higher than that what is expected for Miki 200.

The Miki 20 land is assessed as agricultural land as part of a 16,124-acre parcel. Thus, this project provides no meaningful information on industrial-land values.

For tax purposes, the HECO property is assessed as Agricultural land (not Industrial land) at \$94,080 per acre. This high value indicates that the assessment is based on the actual use of the land, and not on a possible agricultural use.

The industrial land at Kaunalapau Harbor is assessed at \$863,203 per acre. Since this is harbor-front land, it is not comparable to Miki 200.

For Miki 200, once developed and serviced with utilities, the land is expected to be valued between \$100,000 to \$200,000 per acre.

d. Industrial Rents

No data are publicly available on market rents for the existing industrial land or space on Lānaʻi.

On Oʻahu, some of the most affordable industrial space can be found at Kenai Industrial Park near the Kalaeloa Barbers Point Harbor. In late 2019, asking rents were about \$1.10 per square foot per month. Land values at Kenai Industrial Park are much higher than on Lānaʻi, but building costs on Oʻahu are much lower than on Lānaʻi. Based on Kenai Industrial Park, rents for industrial space at Miki 200 are expected to be less than \$1 per square foot per month, assuming that industrial buildings are built and areas within buildings are rented to tenants.

3. DEMAND FOR INDUSTRIAL LAND

a. Current Industrial Uses

As indicated in Section III.2, about 23.5 acres of industrial land are currently being used on Lānaʻi: about 5 acres at Pūlama Lānaʻi Central Services, 10 acres at Miki 20, 5 acres at the HECO site, and 3.5 acres at the harbor.

b. Committed Industrial Uses, Miki 200

For Miki 200, about 174 acres are committed for infrastructure and industrial activities, including:

- Infrastructure: about 20 acres

Internal roads, drainage areas and common areas are expected to require about 20 acres (10%) of the Project area.

- Renewable Energy: about 127 acres

HECO has requested proposals for a 17.5 megawatt (MW) photo voltaic system on Lānaʻi plus a 70 MW-hour (MWh) battery energy storage system (PV+BESS). To help meet the need for renewable energy on Lānaʻi, Pūlama Lānaʻi plans to allocate 127 acres at Miki 200 for renewable energy. The acreage is based on the energy facility being developed at the Pacific Missile Range Facility (PMRF) on Kauaʻi (14 MW/70MWh PV+BESS).

— Concrete/Rock Crushing Facility: about 14.5 acres

Pūlama Lānaʻi's concrete recycling and rock-crushing facility uses equipment to crush concrete and rocks into various sizes and types of aggregate to construct roadways, sidewalks, etc., and for backfill throughout the island for construction projects.

The facility and equipment are mobile, and are temporarily located on 1.6 acres at Miki 20. Miki 200 will provide a permanent base for the operation, water for washing equipment and controlling dust, and a central location for serving the island. Most of the acreage for the relocated operation will be used for stockpiling (1) various types of material to be crushed and (2) various grades of aggregate. These stockpiles will provide an ample and ready supply of aggregate when needed.

After the relocation of operations to Miki 200, the 1.6 acres now used at Miki 20 will come available for other industrial activities.

— Asphalt Plant: about 12.5 acres

Pūlama Lānaʻi's asphalt plant is a hot-mix batch plant that services both the community and Pūlama Lānaʻi. The asphaltic concrete produced from this plant supplies material required to pave new roads, and to repair and repave existing ones.

This mobile facility will be relocated from its current temporary site near Kaunapapa Harbor to Miki 200 in order to provide a permanent base of operations in a central location for serving the island. The current location near the harbor will be used for stockpiling supplies.

c. Typical Industrial Activities

“**Typical industrial activities**” are defined to include those industrial activities typically found in Hawaiʻi (such as manufacturing, warehouses, base yards, etc.), but excluding those activities listed in the previous section (i.e., PV+BESS, concrete/rock-crushing facilities, and asphalt plants).

A pent-up demand for industrial land and industrial space to accommodate “typical industrial activities” 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 small-scale 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 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.

A partial list of industrial activities that could or are likely to develop at Miki 200 include the following:

- Vehicle rentals (cars, 4-wheel drive vehicles, trucks, etc.)
- Vehicle maintenance and repair (engines, transmissions, tires, body, etc.)
- Car wash
- All-terrain vehicle sales, maintenance, repair, etc.
- Small-boat supplies, maintenance and repair (including fishing gear)
- Commercial laundry services for residents
- Base yards and storage for construction trucks, equipment and supplies (lumber, bricks, cement, pipes, roofing, sheetrock, etc.)
- A base of operations for home maintenance, repairs and services (roofing, electrical, plumbing, appliances, cleaning services, pools, etc.)
- A base of operations for maintaining and repairing office equipment (computers, printers, wifi networks, etc.)
- Self-storage space for household goods, records, business supplies, etc.
- Shops and crafts (metal, woodcrafts, taxidermy, lei hulu, etc.)
- Fruit and vegetable processing, possibly with a shared commercial kitchen
- Veterinarian services and pet supplies at a fixed location
- A gym featuring exercise and therapy equipment
- A fixed location for a slaughtering facility and cold storage for hunted animals (i.e., axis deer and mouflon sheep)
- Laboratories (medical, environmental, etc.)
- Shared office facilities for business at Miki 200

d. Land Required for Typical Industrial Activities

Although the Maui Island economy is much larger than that of Lānaʻi, Maui's supply of industrial land provides information for estimating the potential demand for industrial land on Lānaʻi. The economies of both Maui and Lānaʻi are driven primarily by tourism.

In early 2020, about 1,538 acres on Maui were zoned Light or Heavy Industrial. About 80 acres of industrial land were used for two concrete/rock crushing facilities and two asphalt

plants. No industrial land on Maui was used for utility scale PV+BESS. Thus, 1,458 acres were used for “typical industrial activities” (1,538 acres less 80 acres).

In 2019, the *de facto* population for Maui Island was about 216,990 people. This is based on an estimated *de facto* population of 227,213 for the County of Maui as reported in the *Hawai‘i Data Book*, less 9,649 residents living on Lāna‘i and Moloka‘i, less an estimated 575 visitors on Lāna‘i and Moloka‘i (479 visitor units \times 60% occupancy rate \times 2 people per occupied room). The number of visitor units is from the 2020 Visitor Plant Inventory.

Thus, the per-capita land requirement on Maui for “typical industrial activities” was about 6.7 acres per 1,000 people in 2019 (1,458 acres \div 216,990 people).

By 2030, the *de facto* population of Lāna‘i is expected to reach about 4,510 residents and visitors: about 4,020 residents, 380 visitors staying in hotels, and 110 part-time residents and visitors staying in second homes and vacation homes. As indicated in Section II.2.a, the County’s Land Use Forecast for Lāna‘i projects 4,020 residents by 2030, while the Lāna‘i Community Plan noted that increased economic activity and development plans for the island may result in as many as 6,000 residents. The estimate of 380 visitors staying in hotels is based on 320 rooms at Manele, Kō‘ele and Hotel Lāna‘i; 60% occupancy; and 2 people per occupied room. The estimate of 110 part-time residents and visitors staying in second homes and vacation homes is based on 137 single-family homes and 121 multi-family homes at Manele and Kō‘ele; 75% of the homes used for second homes or vacation homes; 25% occupancy; and 2.5 people per home for single-family homes and 2 people for multi-family homes.

Based on the above, **about 30.3 acres would be required on Lāna‘i by 2030 for “typical industrial activities”** (6.7 acres/1,000 people \times 4,510 residents and visitors). As mentioned in Section III.4.a, 23.5 acres of industrial land are currently being used on Lāna‘i, including about 21.9 acres for “typical industrial activities” and 1.6 acres of temporary concrete/rock crushing operations at Miki 20. Thus, by 2030, there is a **potential demand for an additional 8.4 acres for “typical industrial activities”** (30.3 acres less 21.9 acres), **or about 7.6 acres excluding roads and other common areas** (90% of 8.4 acres). Demand for industrial land could be higher due to increased storage requirements to compensate for infrequent and unreliable shipping.

Regarding self-storage, the SpareFoot Storage Beat reports that commercial storage use amounts to about 5.9 square feet per person in the U.S. For Lāna‘i, this translates to about 23,700 square feet of storage by 2030 (5.9 sf/person \times 4,020 residents). Assuming a one-story building with a floor area ratio (FAR) of 35%, about 1.5 acres would be required for a self-storage facility (23,700 sf \times 1 acres/43,560 sf \times 1/35% FAR). This acreage would be included in the estimated 7.6 acres for “typical industrial activities.”

e. Industrial Activities After 2030

About 18.4 acres at Miki 200 will accommodate the demand for industrial land beyond 2030. More importantly, this acreage will provide industrial land approved for development and may have major infrastructure in order to take immediate advantage of any new economic opportunities which may arise, thereby diversifying Lāna‘i’s economy. This acreage will also be available to accommodate “typical industrial activities” before 2030 in the event that the pent-up demand is greater than the estimate given in the previous section.

About 10.6 acres at Miki 20 will also be available to accommodate future demand for industrial land (10 acres vacant plus 1.6 acres of temporary use less 1 acre for infrastructure).

f. Summary

The future supply and use of industrial land on Lāna‘i is projected to be as follows:

	<u>Acres</u>
— Miki 200 (proposed)	
• Committed	
+ Infrastructure	20.0
+ Renewable energy	127.0
+ Concrete/rock-crushing facility	14.5
+ Asphalt plant	12.5
• Typical industrial activities	7.6
• Vacant (to be developed after 2030)	<u>18.4</u>
• Total Miki 200	200.0
— Existing Industrial Projects: Pūlama Lāna‘i Central Services, Miki 20, HECO, and Kaunalapau Harbor	
• Currently used (includes land for infrastructure, but excludes 1.6 acres in temporary use at Miki 20)	21.9
• Available in the future, pending the Land Court Subdivision Approval of Miki 20	
+ Infrastructure	1.0
+ Lots	<u>10.6</u>
• Total Existing Industrial Land	33.5
— Total Industrial Land, Proposed and Existing	233.5

4. CONCLUSIONS

Miki 200 is consistent with the Lāna‘i Community Plan, and will provide much needed industrial lots on Lāna‘i, and a much needed industrial park. Furthermore, the Project will be

centrally located for serving the island. Lots may range in size from about a half-acre to 20 acres or more, and rental space may be provided in new industrial buildings if built. Rents will be at market rates.

Currently, vacant industrial land is not available on the island. However, about 10.6 gross acres will come available at Miki 20 assuming a favorable subdivision approval by the Land Court and relocation of the temporary concrete/rock crushing facility to Miki 200.

Regarding market feasibility of Miki 200, commitments are in place for 174 acres (87%) of the Project area. An additional 7.6 acres for “typical industrial activities” will increase the projected demand to 181.6 acres (91%) 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.

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- U.S. Census Bureau. American Community Survey 5 Year Estimate, 2015-2019.

**PART II TABLES:
SOCIO-ECONOMIC CONDITIONS**

**Table II-1. Demographic Characteristics, County of Maui
and Island of Lana'i: 2010 and 2015–2019 Estimates**

Item	County of Maui			Lana 'i		
	2010	2015-2019	Change	2010	2015-2019	Change
Population (residents)	154,834	165,979	7.2%	3,135	2,730	-12.9%
Male	77,587	82,633	6.5%	1,600	1,396	-12.8%
Female	77,247	83,346	7.9%	1,535	1,334	-13.1%
<u>Distribution</u>						
Male	50.1%	49.8%		51.0%	51.1%	
Female	49.9%	50.2%		49.0%	48.9%	
Population by Age						
Pre-school Age, 4 and Under	10,020	9,907	-1.1%	235	124	-47.2%
School Age, 5 to 19	29,117	29,706	2.0%	621	366	-41.1%
Working Age, 20 to 64	95,894	97,271	1.4%	1,805	1,546	-14.3%
Retirement Age, 65 and Over	19,803	29,095	46.9%	474	694	46.4%
<u>Distribution</u>						
Pre-school Age, 4 and Under	6.5%	6.0%		7.5%	4.5%	
School Age, 5 to 17	18.8%	17.9%		19.8%	13.4%	
Working Age, 18 to 64	61.9%	58.6%		57.6%	56.6%	
Retirement Age, 65 and Over	12.8%	17.5%		15.1%	25.4%	
Median Age	39.6	41.20	4.0%	38.6	49.00	26.9%
Ethnicity						
White alone	53,336	58,891	10.4%	460	488	6.1%
Black or African American alone	870	845	-2.9%	5	0	-100.0%
American Indian and Alaska Native alone	603	424	-29.7%	2	0	-100.0%
Asian alone	44,595	48,579	8.9%	1,745	1,459	-16.4%
Native Hawaiian and Other Pacific Islander alone	16,051	18,093	12.7%	205	186	-9.3%
Some Other Race alone	3,051	2,865	-6.1%	5	52	940.0%
Two or More Races	36,328	36,282	-0.1%	713	545	-23.6%
<u>Distribution</u>						
White alone	34.4%	35.5%		14.7%	17.9%	
Black or African American alone	0.6%	0.5%		0.2%	0.0%	
American Indian and Alaska Native alone	0.4%	0.3%		0.1%	0.0%	
Asian alone	28.8%	29.3%		55.7%	53.4%	
Native Hawaiian and Other Pacific Islander alone	10.4%	10.9%		6.5%	6.8%	
Some Other Race alone	2.0%	1.7%		0.2%	1.9%	
Two or More Races	23.5%	21.9%		22.7%	20.0%	

Table II-1. Demographic Characteristics, County of Maui
and Island of Lana'i: 2010 and 2015–2019 Estimates
(continued)

Item	County of Maui			Lana 'i		
	2010	2015-2019	Change	2010	2015-2019	Change
Households	53,886	54,479	1.1%	1,158	1,181	2.0%
Average Size	2.82	3.00	6.4%	2.71	2.31	-14.8%
Tenure						
Homeowners	30,055	33,232	10.6%	591	706	19.5%
Renters	23,831	21,247	-10.8%	567	475	-16.2%
Distribution						
Homeowners	55.8%	61.0%		51.0%	59.8%	
Renters	44.2%	39.0%		49.0%	40.2%	
Household Type						
Family Household	35,498	38,249	7.7%	788	745	-5.5%
Non-family Household	18,388	16,230	-11.7%	370	436	17.8%
Distribution						
Family Household	65.9%	70.2%		68.0%	63.1%	
Non-family Household	34.1%	29.8%		32.0%	36.9%	
Housing Units	70,379	73,169	4.0%	1,545	1,549	0.3%
Occupied	53,886	54,479	1.1%	1,158	1,181	2.0%
Vacant	16,493	18,690	13.3%	387	368	-4.9%
For seasonal, recreational, or occasional use	9,956	n/a		108	n/a	
Distribution						
Occupied	76.6%	74.5%		75.0%	76.2%	
Vacant	23.4%	25.5%		25.0%	23.8%	
For seasonal, recreational, or occasional use	14.1%	n/a		7.0%	n/a	

Sources:

U.S. Census Bureau. Decennial Census. 2010.

U.S. Census Bureau. American Community Survey 5 Year Estimate, 2015-2019.

Table II-2. Income and Education, County of Maui
and Island of Lana'i: 2010–2014 and 2015–2019 Estimates

Item	County of Maui			Lana 'i		
	2010-2014	2015-2019	Change	2010-2014	2015-2019	Change
Income						
Mean Household Income	\$84,035	\$102,759	22.3%	\$67,475	\$73,484	8.9%
Per Capita Income	\$29,499	\$35,241	19.5%	\$23,262	\$33,052	42.1%
Educational Attainment, 25 Years and Older						
Less than 9th Grade	4,393	4,416	0.5%	146	219	50.0%
Grades 9 to 12, No Diploma	6,007	5,057	-15.8%	158	128	-19.0%
High School Graduate, No College	34,941	36,912	5.6%	896	723	-19.3%
Some College, No Degree	27,200	27,584	1.4%	505	408	-19.2%
Associate Degree	9,854	12,029	22.1%	170	229	34.7%
College, Bachelor's Degree	19,374	21,366	10.3%	367	334	-9.0%
Graduate or Professional Degree	9,000	10,753	19.5%	170	136	-20.0%
Total Population, Age 25 and Older	110,769	118,117	6.6%	2,412	2,177	-9.7%
Distribution						
Less than 9th Grade	4.0%	3.7%		6.1%	10.1%	
Grades 9 to 12, No Diploma	5.4%	4.3%		6.6%	5.9%	
High School Graduate, No College	31.5%	31.3%		37.1%	33.2%	
Some College, No Degree	24.6%	23.4%		20.9%	18.7%	
Associate Degree	8.9%	10.2%		7.0%	10.5%	
College, Bachelor's Degree	17.5%	18.1%		15.2%	15.3%	
Graduate or Professional Degree	8.1%	9.1%		7.0%	6.2%	
Language Spoken at Home (Household)						
English Only	117,369	120,418	2.6%	2,299	1,751	-23.8%
Spanish	2,768	5,896	113.0%	-	33	0.0%
Other Indo-European	2,483	1,647	-33.7%	1	1	0.0%
Asian and Pacific Island languages	25,882	27,466	6.1%	967	821	-15.1%
Others	234	645	175.6%	-	-	0.0%
Distribution						
English Only	78.9%	77.2%		70.4%	67.2%	
Spanish	1.9%	3.8%		0.0%	1.3%	
Other Indo-European	1.7%	1.1%		0.0%	0.0%	
Asian and Pacific Island languages	17.4%	17.6%		29.6%	31.5%	
Others	0.2%	0.4%		0.0%	0.0%	

Sources:

U.S. Census Bureau. American Community Survey 5 Year Estimate, 2010-2014.



**IMPACTS ON
AGRICULTURE
REPORT**

APPENDIX

B

*PROPOSED MIKI BASIN INDUSTRIAL PARK:
IMPACTS ON AGRICULTURE*

*PROPOSED MIKI BASIN INDUSTRIAL PARK:
IMPACTS ON AGRICULTURE*

PREPARED FOR:
Pūlama Lānaʻi

PREPARED BY:
Plasch Econ Pacific Inc.
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February 2019

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APPENDIX

State and County Goals, Objectives, Policies, and Guidelines Related to Agricultural Lands

C-2

EXECUTIVE SUMMARY

1. PROPOSED DEVELOPMENT

Pūlama Lānaʻi proposes to develop the Miki Basin Industrial Park (the Project) on an approximately 200-acre site (the Project Area) in the Miki Basin area on the island of Lānaʻi, Hawaiʻi. The Project will include 100 acres of light industrial and 100 acres of heavy industrial zoned lands.

2. AGRICULTURAL CONDITIONS

The Project Area has agronomic conditions that are unsuitable for field farming to supply crops to Lānaʻi markets, or for export to Oʻahu or the mainland. The problem is a lack of irrigation water.

Except for water, the Project Area has favorable agronomic conditions: soils are good; solar radiation is moderate; and the trucking distances to Lānaʻi City and Mānele Resort are short. However, Lānaʻi farmers are at a competitive disadvantage in supplying the Oʻahu and mainland markets because of shipping costs.

3. PAST AGRICULTURAL USES

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.

4. EXISTING AND FUTURE COMMERCIAL FARMING ON LĀNAʻI

Only one commercial farmer operates on Lānaʻi.

There is a plan for a 100-acre agricultural park on the island of Lānaʻi. In 1992, the Land Use Commission required Castle & Cooke's Lānaʻi Resort to set aside 100 acres for the development and operation of an agricultural park by the State Department of Agriculture and County of Maui for the residents of Lānaʻi. This was a condition for approving the Manele Golf Course. However, there has not been any progress on developing the park due to a lack of interest.

Sensei Farms Lānaʻi is developing a hydroponic farm to supply fresh produce to local markets, and possibly to off-island markets. Ten (10) greenhouses are planned, which will be powered by an off-grid photovoltaic system. One of the major advantages of hydroponic farming is that it requires relatively little water compared to field farming.

ES-1

EXECUTIVE SUMMARY

5. IMPACT ON AGRICULTURAL OPERATIONS WITHIN THE PROJECT AREA

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.

6. IMPACT ON THE GROWTH OF AGRICULTURE

The development of the Project will result in a loss of 200 acres of fallow agricultural lands on Lānaʻi. However, there are approximately 18,000 acres of former plantation lands on Lanai which remain available for agricultural use, and over 200,000 acres statewide. 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.

7. OFFSETTING BENEFITS

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.

8. CONSISTENCY WITH STATE AND CITY POLICIES

a. Availability of Lands for Agriculture

The Hawaiʻi State Constitution, the Hawaiʻi State Plan, the State Agriculture Functional Plan, the County of Maui 2030 General Plan, and the County's Lānaʻi Community Plan call directly or implicitly for preserving the economic viability of plantation agriculture and promoting the growth of diversified agriculture. To accomplish this, an adequate supply of agriculturally suitable lands and water must be assured.

With regard to plantation agriculture, the Project Area is no longer part of a pineapple plantation. The last pineapple harvest was in 1992.

With regard to diversified agriculture, the Project will not result in the loss of any existing agricultural operation since the Project Area is not currently being cultivated and has not been cultivated since 1992.

Although the Project will reduce the availability of agricultural land by about 200 acres, the Project will not limit the growth of diversified agriculture statewide or on Lānaʻi since ample agricultural land is available due to the loss of nearly all plantations in Hawaiʻi.

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b. Conservation of Agricultural Lands

In addition to the above, State and County policies call for conserving and protecting prime agricultural lands, including protecting farmland from urban development.

It should be noted that many of the State agricultural policies were written before the major contraction of plantation agriculture (from 1981 to 2016), and assume implicitly that profitable agricultural activities eventually will be available to utilize all available agricultural lands. This has proven to be a questionable assumption in view of the enormity of the contraction of plantation agriculture, the abundant supply of farmland that came available for diversified agriculture, and the slow growth in the amount of land being utilized for diversified agriculture.

Furthermore, discussions in the State Agriculture Functional Plan recognize that redesignation of lands from Agricultural to Urban and/or Rural should be allowed “... upon a demonstrated change in economic or social conditions, and where the requested redesignation will provide greater benefits to the general public than its retention in ...agriculture;” that is, when an “overriding public interest exists.” The enormous contraction of plantation agriculture, which resulted in the supply of agricultural land far exceeding demand, constitutes a major change in economic conditions. Moreover, the Project will provide community benefits (jobs, tax revenues, etc.) that far exceed the benefits of leaving the land in agriculture. In practice, the Project is expected to have no significant impact on agricultural activity since ample land is available statewide to accommodate the anticipated growth of diversified agriculture.

c. State and County of Maui Land Use Plans

The Lānaʻi Community Plan currently designates the Project Area for Light/Heavy Industrial use. However, the entire Project Area is designated “Agricultural” under the State Land Use District and the Maui County Zoning. Because the Project Area is intended for transition to industrial type uses as evidenced by the Lānaʻi Community Plan, Pūlama Lānaʻi will request an amendment to the State Land Use District and the County zoning for the Project Area to be consistent with the Community Plan.

**MIKI BASIN INDUSTRIAL PARK:
IMPACTS ON AGRICULTURE**

1. INTRODUCTION

Pūlama Lānaʻi proposes to develop the Miki Basin Industrial Park (the Project) on an approximately 200-acre site (the Project Area), located east of the Lānaʻi Airport in the Miki Basin area, Lānaʻi, Hawaiʻi.

This report addresses the impacts of the Project on agriculture. The material below gives information about the Project, the agricultural conditions of the 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. The Appendix provides a summary of State and County goals, objectives, policies, and guidelines related to agricultural lands.

2. PROJECT INFORMATION

a. Project Location and TMK

As shown in Figure 1 (all Figures follow the body of the report), the Project Area is situated approximately 3.2 miles southwest of Lānaʻi City. The Project Area is bordered on the west by the Lānaʻi Airport and on the north, east, and south by open lands which were historically utilized for pineapple plantation (see Figure 2). The Tax Map Key (TMK) for the Project Area is (2)4-9-002:061(por.).

b. Project Description

Pūlama Lānaʻi proposes the Miki Basin Industrial Park which will include 100 acres of light industrial and 100 acres of heavy industrial zoned lands (see Figure 3).

c. Land Classifications and Required Approvals

Current land classifications of the Project Area and proposed changes are as follows:

State Districts

- Current: Agricultural (See Figures 4 and 5)
- Proposed: Urban

County Designations

- Lānaʻi Community Plan
 - Current: Heavy Industrial and Light Industrial Area) (see Figure6)
- Maui County Zoning
 - Current: Agricultural
 - Proposed: M-1, Light Industrial (100 acres)
M-2, Heavy Industrial (100 acres)

3. AGRICULTURAL CONDITIONS**a. Soil Types**

As shown in Figure 7, the Project Area contains six (6) soil types. Their acreages are shown in Table 1 by their quality as rated by the Natural Resources Conservation Service (NRCS), formerly known as the Soil Conservation Service.

For each of the six (6) soil types, the complete name, the range of slopes, and soil descriptions are:

- **MuA: Molokaʻi silty clay loam, 0 to 3 percent slopes.**

The Molokaʻi series consists of well drained soils on uplands on the islands of Maui, Lānaʻi, Molokaʻi, and Oʻahu. The MuA soils are on smooth slopes and the surface layer is dark reddish-brown silty clay loam about 15 inches thick. The subsoil, about 57 inches thick, is dark reddish brown silty clay loam that has prismatic structure. The material at depths between 35 and 64 inches is moderately compact in place. The soils that are used for pineapple are commonly very strongly acid in the surface layer. Runoff is slow and the erosion hazard is slight.

- **MuB: Molokaʻi silty clay loam, 3 to 7 percent slopes.**

The MuB soils are characterized by 3 to 7 percent slopes. Included in mapping were a few small areas that are eroded to soft, weathered rock. Runoff is slow to medium and the erosion hazard is slight to moderate. This soil is used for sugar cane, pineapple, pasture, wildlife habitat, and homesites.

- **MuC: Molokai silty clay loam, 7 to 15 percent slopes.**

The MuC soils are characterized by 7 to 15 percent slopes. The soils occur on knolls and sharp slope breaks. Runoff is medium and the erosion hazard is moderate. This soil is used for sugar cane, pineapple, pasture, wildlife habitat, and homesites.

- **UwB: Uwala silty clay loam, 2 to 7 percent slopes.**

The Uwala Series consists of well drained soils on uplands on the island of

Lānaʻi. The UwB soils have smooth slopes and included in mapping were small, severely eroded areas. Runoff is slow to medium, and the erosion hazard is slight to moderate. The soils are strongly acid in the surface layer and medium acid in the subsoil.

- **UwC: Uwala silty clay loam, 7 to 15 percent slopes.**

The UwC soils are characterized by 7 to 15 percent slopes. Runoff is medium and the erosion hazard is moderate. Workability is slightly difficult because of the slope. This soil is used primarily for pineapple and small areas are used for wildlife habitat.

- **WrA: Waikapu silty clay loam, 0 to 3 percent slopes.**

The Waikapu series consist of well drained soils in uplands on the islands of Lānaʻi and Molokaʻi. The WrA soils are characterized by 0 to 3 percent slopes and found on uplands in depressions on old alluvial fans. The soil is typically slightly acid to neutral but is strongly acid to very strongly acid in the surface layer in areas where pineapple is grown. There are a few stones on the surface and a few shallow gullies. Runoff is slow and the erosion hazard is slight.

**Table 1. Miki Basin Industrial Park:
Soil Types and NRCS Ratings**

Soil Types	Acres		NRCS Rating
MuA	44.9	22.5%	I
MuB	88.4	44.2%	Ile
MuC	1.5	0.7%	IIIe
UwB	27.0	13.5%	Ile
UwC	19.5	9.7%	IIIe
WrA	18.7	9.4%	I
Total	200.0	100%	

b. Soil Characteristics

Land in the Project Area exhibits a number of favorable characteristics for farming, including gentle sloping (and well drained soils. However, due to lack of available irrigation water, the Project Area is not suitable for intensive field farming. The Project Area and the surrounding areas were historically used for pineapple production, which only requires relatively little water. Also, soils in the Project Area are acidic on the surface layer.

c. Soil Ratings

Three (3) classification systems are commonly used to rate Hawai'i soils: (1) Land Capability Grouping, (2) Agricultural Lands of Importance to the State of Hawai'i, and (3) Overall Productivity Rating.

Land Capability Grouping (NRCS Rating)

The 1972 Land Capability Grouping by the U.S. Department of Agriculture, NRCS rates soils according to eight (8) levels, ranging from the highest classification level "I" to the lowest "VIII".

Assuming irrigation, approximately 63.7 acres (31.8%) of the Project Area have soils that are rated in Class I, which have few limitations that restrict their use (see Table 1). Approximately 115.4 acres (57.7%) of the Project Area have soils that are rated in Class IIe. Class II soils have moderate limitations that reduce the choice of plants or require moderate conservation practices. The subclassification "e" indicates that the limitations are due to erosion. The remainder of the Project Area, approximately 21.0 acres (10.5%), is characterized as having soils that are rated Class IIIe. Class III soils have severe limitations that reduce the choice of plants, require special conservation practices, or both.

These ratings ignore the lack of irrigation water for the Project Area.

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

ALISH ratings were developed in 1977 by the NRCS, UH College of Tropical Agriculture and Human Resources, and the State of Hawai'i, Department of Agriculture. This system classifies land into three (3) broad categories: (a) "Prime" agricultural land which is land that is best suited for the production of crops because of its availability to sustain high yields with relatively little input and with the least damage to the environment; (b) "Unique" agricultural land which is non-Prime agricultural land used for the production of specific high-value crops; and (c) "Other" agricultural land which is non-Prime and non-Unique agricultural land that is important to the production of crops.

The entire Project Area has soils that are rated "Unique" (see Figure 8). This rating reflects the past use of the land for growing pineapple.

Overall Productivity Rating (LSB Rating)

In 1967, the UH Land Study Bureau (LSB) developed the Overall Productivity Rating, which classifies soils according to five (5) levels, with "A" representing the class of highest productivity and "E" the lowest.

The majority of the Project Area has soils rated D, with a small area rated E (see Figure 9). The low rating reflects the lack of irrigation water for the Project Area.

Summary Evaluation of Soil Quality

The Project Area has lands that are considered good farmland based on the soil quality. The land is characterized as "Unique" farmland by ALISH and 89.5 percent of the Project Area is rated I or II by NRCS, indicating that it has few or moderate limitations for farming. The Project Area is relatively flat with well drained soils that are able to sustain high yields, as is evidenced by decades of pineapple cultivation.

However, this evaluation ignores the lack of irrigation water.

d. Slopes

Most of the Project Area has slopes of less than 4%.

e. Climatic Conditions

Like other areas in Hawai'i, the island of Lāna'i has a mild semitropical climate that is due primarily to three factors: (1) Hawai'i's mid-Pacific location near the Tropic of Cancer, (2) the surrounding warm ocean waters that vary little in temperature between the winter and summer seasons, and (3) the prevailing northeasterly tradewinds that bring air having temperatures which are close to those of the surrounding waters.

Solar Radiation

The Project Area receives a moderate level of sunshine, with average daily insolation of about 420 calories per square centimeter per day.

Rainfall

Average annual rainfall at the Project Area is approximately 20 inches. Most of this rainfall occurs during the winter rainy season (October through April), while the summer months (May through September) are hot and dry.

Temperatures

Average temperatures range from the mid-60s in the winter to the low 70s in the summer.

Winds

The prevailing surface winds are tradewinds that blow between the islands of Maui and Moloka'i. This wind increases evaporation and soil erosion on the north and east sides of Lāna'i. Occasional strong winds can cause crop damage if unprotected by windbreaks.

f. Irrigation Water

Lānaʻi has five (5) water systems, including two (2) drinking water systems, one (1) brackish water system used for irrigation, and two (2) reclaimed water systems, also used for irrigation. Historically, fields on the island of Lānaʻi were irrigated with a combination of surface water from Maunalei Valley and groundwater from wells once used for pineapple cultivation. Figure 10 presents the existing water system on Lānaʻi. All waterlines near the Project Area convey chlorinated water, or they have been abandoned.

Due to a limited amount of potable water on Lānaʻi, brackish groundwater and treated wastewater are used to irrigate the golf courses and resort landscaping. Water is not available to support extensive diversified crop farming on the Lānaʻi fields.

g. Local Advantages and DisadvantagesLānaʻi Island Market

The Project Area is well-located for supplying the Lānaʻi Island market because of the relatively short distance from the Project Area to Lānaʻi City (the island's commercial and population center) and to Mānele Resort.

The Lānaʻi Island market is relatively small: according to the U.S. Census American Community Survey (ACS) 5-Year Estimate, the resident population of Lānaʻi between 2013 and 2017 was estimated to be 3,203.

Maui Island Market

Lānaʻi farmers are at a disadvantage when competing against Maui farmers because of inter-island shipping costs, delays, and extra handling. There is no regular barge service between Lānaʻi and Maui Island.

The Maui County market is significant, with about 166,260 residents in 2017.

Oʻahu Market

All neighbor island farmers are at a disadvantage when competing against Oʻahu farmers in supplying the Honolulu market due to inter-island shipping costs, delays, and extra handling. In comparing barge and air-cargo services, shipping by barge is less expensive and larger loads can be shipped, but the shipments are slow and infrequent. Air service is faster and frequent, but it is far more expensive, and capacities are limited.

In 2017, Oʻahu's population was estimated to be about 988,650 residents.

Mainland Market

Compared to Hawaiʻi, the mainland market is enormous: in 2017, the U.S. population was estimated to be 325.7 million. In supplying this market with products that can be

carried by container ship—i.e., products having long shelf-lives such as coffee, nuts, and canned fruit—most neighbor-island farmers are competitive with farmers on Oʻahu. Even though freight from must first be barged to Honolulu then transferred onto a container ship, Matson's overseas shipping service includes inter-island barge service at no additional fee: except for some minor port charges, Matson charges a common fare for all islands. However, Matson does not service Lānaʻi, so additional shipping fees are required when exporting to the mainland.

In the case of fresh products that must be shipped by air to the mainland—i.e., products having short shelf-lives such as fresh vegetables, fruits, and flowers—farmers on Lānaʻi are at a disadvantage compared to Oʻahu farmers because most mainland air cargo is shipped via Honolulu International Airport. Compared to farmers on Oʻahu, Lānaʻi farmers encounter additional costs, delays, and handling to cover inter-island air-cargo service and transferring the fresh produce from small inter-island aircraft to large overseas aircraft.

In the U.S. mainland market, Hawaiʻi farmers must also compete against farmers on the mainland and in Mexico, Central and South America, Southeast Asia, etc. Most of the competing farm areas have lower production and delivery costs than Hawaiʻi does. Competing against Mexico is particularly difficult given existing trade agreements and Mexico's proximity to major U.S. markets.

Summary of Locational Advantages

In terms of location, farmers on the island are relatively well-situated to supply the small Lānaʻi Island market.

However, compared to farmers on Oʻahu and the other islands, they are at a disadvantage in supplying the Honolulu and mainland markets.

h. Summary of Agricultural Conditions

The Project Area has agronomic conditions that are unsuitable for field farming to supply crops to Lānaʻi markets, or for export to Oʻahu or the mainland. The problem is a lack of irrigation water.

Except for water, the Project Area has favorable agronomic conditions: soils are good; solar radiation is moderate; and the trucking distances to Lānaʻi City and Mānele Resort are short. However, Lānaʻi farmers are at a competitive disadvantage in supplying the Oʻahu and mainland markets because of shipping costs.

4. PAST AGRICULTURAL USES

In 1922, James Dole purchased nearly the entire island of Lānaʻi and began developing a plantation for his Hawaiian Pineapple Company, Ltd. (HAPCo). Pineapple was suitable for

Lānaʻi's agricultural conditions because Lānaʻi has fertile soils and pineapple requires relatively little water. For almost 70 years, the island of Lānaʻi was the world's largest pineapple plantation with more than 18,000 acres of cultivated lands.

In 1931, Castle & Cooke purchased 21% of the shares of HAPCo, and by 1961 owned the entire company which by then had been renamed Dole Food Company.

In 1980s and 1990s, stiff competition from plantations in Latin America and the Philippines brought declining profitability to the Hawaiʻi pineapple industry.

In 1985, David H. Murdock purchased Castle & Cooke, which owned approximately 98% of the island of Lānaʻi. Pineapple cultivation was slowly phased out, with the final harvest in 1992. By then, the island's economy was shifting from agriculture to tourism.

Since the end of pineapple cultivation on Lānaʻi, the Project Area and the surrounding former pineapple plantation lands have been fallow.

5. EXISTING AND FUTURE COMMERCIAL FARMING ON LĀNAʻI

a. Existing Farms

Only one commercial farmer operates on Lānaʻi, and he sells fresh produce to local grocery stores and the hotels. In addition, some part-time farmers grow crops for personal consumption, and some sell to the grocery stores.

b. Agricultural Park

There is a plan for a 100-acre agricultural park on the island of Lānaʻi. In 1992, the Land Use Commission required Castle & Cooke's Lānaʻi Resort to set aside 100 acres for the development and operation of an agricultural park by the State Department of Agriculture and County of Maui for the residents of Lānaʻi. This was a condition for approving the Manele Golf Course. However, there has not been any progress on developing the park due to a lack of interest.

c. Hydroponic Farm

Sensei Farms Lānaʻi is developing a hydroponic farm to supply fresh produce to local markets, and possibly to off-island markets. Ten (10) greenhouses are being planned, each of which will cover nearly a half acre (160 feet by 124 feet). One of the major advantages of hydroponic farming is that it requires relatively little water compared to field farming. The greenhouses will be powered by an off-grid photovoltaic system.

A Head House building is also planned, which will include a lab, conference rooms, a dining room for employees, offices, a locker room, multi-function space, and a kitchen. The kitchen will be used for cooking demonstrations and meal preparation using produce from the hydroponic farm.

6. IMPACT ON AGRICULTURAL OPERATIONS IN THE PROJECT AREA

There are no existing agricultural operations at the Project Area. As such, there will be no adverse impacts to existing agricultural operations.

7. IMPACT ON THE GROWTH OF AGRICULTURE

The development of the Project will result in a loss of 200 acres of fallow agricultural lands on Lānaʻi. However, there are approximately 18,000 acres of former plantation lands on Lanai which remain available for agricultural use.

Statewide, the remaining supply of available farmland released by plantation agriculture exceeds 200,000 acres. This is about 3.7 times the amount of land in crop—about 54,000 acres. About 15,000 acres of the 54,000 acres are used for food crops grown primarily for the Hawaiʻi market, while about 39,000 acres are used primarily for export crops (pineapple, macadamia nuts, coffee, seeds, flowers, etc.).

The supply of available farmland is vast because of the statewide contraction and closure of many sugarcane and pineapple plantations during the past four decades, combined with the subsequent slow growth of diversified-crop farming (i.e., all crops other than sugarcane and pineapple)—see Figure 11.

Figure 11 also shows the growth of diversified-crop acreage. Even though Hawaiʻi has a long history of strong support for its agriculture industry, little growth in diversified-crop acreage has occurred since 1983, with the single exception being seed crops. However, seed acreage has declined in recent years, and the seed-crop industry faces public opposition over their development of genetically modified organisms (GMO) crops.

The lack of significant growth of diversified crops reflects increased competition from overseas 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.

Following the plantation closures on Oʻahu, vegetable and melon acreage expanded on the capital island, but this was followed by declines on the Neighbor Islands for the farmers who exported to Oʻahu.

In summary, 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.

8. OFFSETTING BENEFITS

The loss of 200 acres of agricultural land will be offset by the following benefits of the Project:

Construction Activity

- Construction jobs and income associated with Project development.

- Indirect jobs and income generated by purchases of goods and services by construction companies and families of construction workers.
- State tax revenues (excise taxes, personal income taxes, corporate income taxes, etc.) paid by construction companies and workers, and by companies and families that are supported by construction activity.

Operations, Full Development

- Goods and services provided by businesses of the Projects.
- Employment and income generated by onsite industrial activity.
- Tax revenues derived from County property taxes and State taxes (excise, personal income, and corporate income).

9. CONSISTENCY WITH STATE AND COUNTY POLICIES

a. Availability of Lands for Agriculture

The Hawai'i State Constitution, the Hawai'i State Plan, the State Agriculture Functional Plan, the County of Maui 2030 General Plan, and the County's Lāna'i Community Plan call directly or implicitly for preserving the economic viability of plantation agriculture and promoting the growth of diversified agriculture. To accomplish this, an adequate supply of agriculturally suitable lands and water must be assured.

With regard to plantation agriculture, the Project Area is no longer part of a pineapple plantation. The last pineapple harvest was in 1992.

With regard to diversified agriculture, the Project will not result in the loss of any existing agricultural operation since the Project Area is not currently being cultivated and has not been cultivated since 1992.

Although the Project will reduce the availability of agricultural land by about 200 acres, the Project will not limit the growth of diversified agriculture statewide or on Lāna'i since ample agricultural land is available due to the loss of nearly all plantations in Hawai'i.

b. Conservation of Agricultural Lands

In addition to the above, State and County policies call for conserving and protecting prime agricultural lands, including protecting farmland from urban development.

It should be noted that many of the State agricultural policies were written before the major contraction of plantation agriculture (from 1981 to 2016), and assume implicitly that profitable agricultural activities eventually will be available to utilize all available agricultural lands. This has proven to be a questionable assumption in view of the enormity of the contraction of plantation agriculture, the abundant supply of farmland that came available for diversified agriculture, and the slow growth in the amount of land being utilized for diversified agriculture.

Furthermore, discussions in the State Agriculture Functional Plan recognize that redesignation of lands from Agricultural to Urban and/or Rural should be allowed "... upon a demonstrated change in economic or social conditions, and where the requested redesignation will provide greater benefits to the general public than its retention in ...agriculture;" that is, when an "overriding public interest exists." The enormous contraction of plantation agriculture, which resulted in the supply of agricultural land far exceeding demand, constitutes a major change in economic conditions. Moreover, the Project will provide community benefits (jobs, tax revenues, etc.) that far exceed the benefits of leaving the land in agriculture. In practice, the Project is expected to have no significant impact on agricultural activity since ample land is available statewide to accommodate the anticipated growth of diversified agriculture.

c. State and County of Maui Land Use Plans

The Lāna'i Community Plan currently designates the Project Area for Light/Heavy Industrial use. However, the entire Project Area is designated "Agricultural" under the State Land Use District and the Maui County Zoning. Because the Project Area is intended for transition to industrial type uses as evidenced by the Lāna'i Community Plan, Pūlama Lāna'i will request an amendment to the State Land Use District and the County zoning for the Project Area to be consistent with the Community Plan.

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FIGURES