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LAND USE COMMISSION
STATE OF HAWAII

BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Petition of:)	Docket No. A13-797
)	
CMBY 2011 INVESTMENT, LLC)	TESTIMONY STATEMENT OF THE
)	DEPARTMENT OF PLANNING, COUNTY
)	OF MAUI; CERTIFICATE OF SERVICE
To Amend the Agricultural Land Use District)	
Boundaries into the Urban Land Use District)	
For Approximately 86.080 Acres of Land at)	
Pulehunui, District of Wailuku, Maui, Hawaii,)	
Maui Tax Map Key No. (2) 3-8-008:019)	
_____)	

TESTIMONY STATEMENT OF THE DEPARTMENT OF PLANNING, COUNTY OF MAUI

The County of Maui Department of Planning (hereinafter referred to as "Department") recommends, subject to conditions, approval of the petition by CMBY 2011 INVESTMENT, LLC (hereinafter referred to as "Petitioner"), to reclassify approximately 86.080 acres from the State Agricultural Land Use District to the State Urban Land Use District at Tax Map Key (2) 3-8-008:019 (hereinafter referred to as "Property"), at Pulehunui, Wailuku, Maui, Hawaii.

It should be noted that descriptions and analysis in this testimony statement reference details from the *Final Environmental Assessment CMBY 2011 INVESTMENT, LLC, November 2012* (FEA), prepared for the Petitioner by Chris Hart & Partners, Inc. On November 27, 2012, the Final Environmental Assessment filed by CMBY 2011 INVESTMENT, LLC was accepted by the County of Maui Planning Commission (MPC).

DESCRIPTION OF THE PROJECT

The Petitioner requests the State Land Use Commission (Commission) reclassify approximately 86.080 acres in Pulehunui, Wailuku, Maui, from the State Agricultural Land Use District to the State Urban Land Use District. The proposed land development plan for the heavy industrial subdivision calls for subdividing the 86-acre subject parcel to provide 28 developable lots on 66 acres of land including 10 lots ranging in size from 0.5-acre to 1-acre, five lots ranging from over 1-acre to 2-acres in size, and the remaining 13 lots ranging from over 2-acres to 20-acres in size. Preliminarily, about 9 acres will be set aside for a series of drainage retention basins along the western edge of the parcel, while approximately 11 acres have been designated for the subdivision's

internal roadway system. In light of the volatile nature of the global economy, the actual number and size of the subdivision lots will be heavily influenced by prevailing market conditions at the time the Petitioner is ready to proceed with development.

The Petition indicates that the proposed uses will be dependent upon the lot buyer, and that buyers will most likely be those who want to develop “pure industrial uses”, such as manufacturing from raw materials, warehousing, and secured baseyard uses. As the Petitioner has submitted to the County of Maui an application to have the zoning district of the Petition Area changed from Agricultural to M-3 Restricted Industrial, the uses will be limited to industrial activities. Generally, M-3, Restricted Industrial zoning encompasses those uses that involve the manufacture, processing, storage, or treatment of goods from raw materials. The intent of M-3 zoning is to provide for manufacturing and nuisance industries and exclude residential, retail and office uses. Some of the uses permitted under M-3 zoning include: canneries; factories; manufacturing facilities; major utility facilities; landfills, lumber yards; machine shops; rock quarries; and material recycling/processing facilities. The Petition specifically states that “the Petition Area will not be used as a landfill, which is a permitted use within the M-3 District, unless the Petitioner seeks approval of the Commission pursuant to a Motion to Amend or such other procedure.”

DESCRIPTION OF THE PROPERTY

1. The subject parcel is located on the Central Maui plain in the vicinity of the Old Pu`unene Airport. The site lies approximately 1.0 mile southeast of the intersection of Mokulele Highway, Mehamaha Loop, and Kama'aina Road. From this intersection, Kahului lies approximately 3.25 miles to the north, while North Kihei is about 3.75 miles to the south. Access from the highway to the site is provided by Kama`aina Road, South Firebreak Road, and Lower Kihei Road. The Petition Area is designated Agriculture in the Kihei-Makena Community Plan and is zoned Agricultural by the County of Maui (“County”). As such, the proposed heavy industrial use is not consistent with the current land use designation in the Community Plan and with County Zoning. Consequently, the Petitioner submitted to the County applications for a Community Plan Amendment (“CPA”) and Change in Zoning (“CIZ”) on April 16, 2012. In reviewing this project, the Department has consistently supported the Petition and anticipates continuing to do so. The Community Plan designation is requested to be changed to “Heavy Industrial” and the County Zoning is requested to be changed to M-3, Restricted Industrial. The Maui Island Plan which went into effect on December 28, 2012, designated the Petition Area to be within the planned growth area, and the Property is within the Maui Island Urban Growth Boundary.

Access from Mokulele Highway to the subject Property will be furnished over State land controlled by the DLNR. On April 12, 2013, the land owner obtained approval from the State DLNR for a grant of non-exclusive access and utility easement over approximately 9.43 acres of State land, which provides a 56-foot wide access and utility easement from Mokulele Highway to the subject Property.

2. Land Use Designations –

- | | | |
|----|--------------------------------|---|
| a. | State Land Use District -- | Agricultural |
| b. | Maui Island Plan -- | Within the Maui Island Urban Growth Boundary
and Pulehunui Planned Growth Area |
| c. | Kihei-Makena Community Plan -- | Agriculture |
| d. | County Zoning -- | Agricultural |

3. Surrounding Uses --

North --	Agricultural and cane lands
East --	Agricultural and cane lands
South --	Agricultural and cane lands
West --	Project District No. 10 and Pu'unene Airport Master Plan Area; Maui Raceway Park dragstrip; Hawaii Army National Guard Armory

APPLICABLE REGULATIONS

Standards for reviewing a Land Use Commission Urban District Boundary Amendment are found under Title 15, Subtitle 3 State Land Use Commission, Chapter 15 Land Use Commission Rules, Subchapter 2, §15-15-18 of the Hawaii Administrative Rules as follows:

- (1) It shall include lands characterized by "city-like" concentrations of people, structures, streets, urban level of services and other related land uses;
- (2) It shall take into consideration the following specific factors:
 - (A) Proximity to centers of trading and employment except where the development would generate new centers of trading and employment;
 - (B) Availability of basic services such as schools, parks, wastewater systems, solid waste disposal, drainage, water, transportation systems, public utilities, and police and fire protection; and
 - (C) Sufficient reserve areas for foreseeable urban growth;
- (3) It shall include lands with satisfactory topography, drainage and reasonably free from the danger of floods, tsunami, unstable soil condition, and other adverse environmental effects;
- (4) Land contiguous with existing urban areas shall be given more consideration than non-contiguous land, and particularly when indicated for future urban use on state or county general plans;
- (5) It shall include lands in appropriate locations for new urban concentrations and shall give consideration to areas of urban growth as shown on the state and county general plans;
- (6) It may include lands which do not conform to the standards in paragraphs (1) to (5):
 - (A) When surrounded by or adjacent to existing urban development; and
 - (B) Only when those lands represent a minor portion of this district;
- (7) It shall not include lands, the urbanization of which will contribute toward scattered spot urban development, necessitating unreasonable investment in public infrastructure or support services; and
- (8) It may include lands with a general slope of twenty percent or more if the commission finds that those lands are desirable and suitable for urban purposes and that the design and construction controls, as adopted by any federal, state, or county agency, are adequate to protect the public health, welfare and safety, and the public's interests in the aesthetic quality of the landscape.

Pursuant to §15-15-77 Decision-making criteria for boundary amendments:

- (a) The commission shall not approve an amendment of a land use district boundary unless the commission finds upon the clear preponderance of the evidence that the proposed boundary amendment is reasonable, not violative of section 205-2, HRS,

and consistent with the policies and criteria established pursuant to sections 205-16, 205-17, and 205A-2, HRS.

- (b) In its review of any petition for reclassification of district boundaries pursuant to this chapter, the commission shall specifically consider the following:
- (1) The extent to which the proposed reclassification conforms to the applicable goals, objectives, and policies of the Hawaii state plan and relates to the applicable priority guidelines of the Hawaii state plan and the adopted functional plans;
 - (2) The extent to which the proposed reclassification conforms to the applicable district standards;
 - (3) The impact of the proposed reclassification on the following areas of state concern:
 - (A) Preservation or maintenance of important natural systems or habitats;
 - (B) Maintenance of valued cultural, historical, or natural resources;
 - (C) Maintenance of other natural resources relevant to Hawaii's economy including, but not limited to agricultural resources;
 - (D) Commitment of state funds and resources;
 - (E) Provisions for employment opportunities and economic development; and
 - (F) Provision for housing opportunities for all income groups, particularly the low, low-moderate, and gap groups;
 - (4) In establishing the boundaries of the districts in each county, the commission shall give consideration to the general plan of the county in which the land is located;
 - (5) The representations and commitments made by the petitioner in securing a boundary change, including a finding that the petitioner has the necessary economic ability to carry out the representations and commitments relating to the proposed use or development; and
 - (6) Lands in intensive agricultural use for two years prior to date of filing of a petition or lands with a high capacity for intensive agricultural use shall not be taken out of the agricultural district unless the commission finds either that the action:
 - (A) Will not substantially impair actual or potential agricultural production in the vicinity of the subject property or in the county or State; or
 - (B) Is reasonably necessary for urban growth.

ANALYSIS OF THE DEPARTMENT OF PLANNING, COUNTY OF MAUI

NEED FOR THE PROPOSED USE

On the island of Maui, about 489 acres of land has been zoned for heavy industrial use. In Central Maui, approximately 442 acres have been zoned for this purpose. Much of this heavy industrial zoned land has already been built upon or is being used as work or storage yards. The minimal amount of land that is available is located in areas that are considered unsuitable for heavy industrial use due to proximity impacts to adjacent residential and commercial development. In this case, the highest and best use of this land is for business use, which is currently allowed by heavy industrial zoning. There has not been any purely heavy industrial development in Central Maui for over a decade. During this period, the focus has been on the light industrial market with an emphasis on commercial retail/office use. In fact, recently a 31.2 acre parcel of land referred to as

the Waiko Baseyard Light Industrial Development received approval for a District Boundary Amendment from Agricultural to Urban.

With the exception of the proposed project, no heavy industrial projects are proposed on Maui at this time. With the limited supply of heavy industrial land that is currently available, the proposed heavy industrial subdivision is expected to attract a significant amount of interest. Since there is no residential or commercial development in the vicinity of the site, the proposed project is ideally situated for heavy industrial use and its centralized location provides convenient access to Kahului Harbor and the Kahului Airport. The proposed project is expected to alleviate the pent-up demand for purely heavy industrial land and provide individuals and businesses with the opportunity to purchase lots and build new facilities or expand their current operations.

LAND USE

1. Hawaii State Plan. The proposed project is in conformance with the goals, objectives and policies of the Hawaii State Plan. Chapter 226, HRS, also known as the Hawaii State Plan, is a long-range comprehensive plan which serves as a guide for the future long-range development of the State by identifying goals, objectives, policies, and priorities, as well as implementation mechanisms.

The proposed action is in keeping with the following goals of the Hawaii State Plan.

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

1. Objectives and Policies of the Hawaii State Plan

The request for reclassification is in conformance with the following objectives and policies of the Hawaii State Plan:

Chapter 226-5. HRS. Objectives and Policies for Population

226-5(a), HRS: It shall be the objective in planning for the State's population to guide population growth to be consistent with the achievement of physical, economic, and social objectives contained in this chapter.

226-5(b)(2), HRS: Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.

226-5(b)(3), HRS: Promote increased opportunities for Hawaii's people to pursue their socio-economic aspirations throughout the islands.

Chapter 226-6, HRS, Objectives and Policies for the Economy in General

226-6(a)(1), HRS: Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii's people.

226-6(a)(2), HRS: A steadily growing and diversified economic base that is not overly dependent on a few industries, and includes the development and expansion of industries on the neighbor islands.

Comment: The proposed project conforms to the Objectives and Policies for Population (HRS 226-5) by increasing economic opportunities and employment opportunities on the Neighbor Islands. The proposed heavy industrial subdivision will allow for the expansion of existing enterprises and the possible creation of new businesses which would employ Maui residents. This further supports the Objectives and Policies for the Economy in General (HRS 226-6) by offering potential industrial businesses with the opportunity to expand their activities through newly available industrial-zoned lands.

2. Priority Guidelines of the Hawaii State Plan

The proposed action is in keeping with the following priority guidelines of the Hawaii State Plan:

Chapter 226-103, HRS, Economic Priority Guidelines

226-103(1), HRS: Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.

a. *Encourage investments which:*

- (i) Reflect long term commitments to the State;
- (ii) Rely on economic linkages within the local economy;
- (iii) Diversify the economy;
- (iv) Re-invest in the local economy;
- (v) Are sensitive to community needs and priorities; and
- (vi) Demonstrate a commitment to management opportunities to Hawaii residents.

Chapter 226-104, HRS, Population Growth and Land Resources Priority Guidelines

226-104(a)(1), HRS: Encourage planning and resource management to insure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawaii's people.

226-104(b)(1), HRS: Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public

expenditures and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles.

226-104(b)(2), HRS: Make available marginal or non-essential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.

226-104(b)(12), HRS: Utilize Hawaii's limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline conservation lands, and other limited resources for future generations.

Comment: The proposed project is in keeping with the priority guidelines of the Hawaii State Plan's Economic Priority Guidelines (HRS 226103) because the project will rely on economic linkages within the local economy, through potential lessees and lot purchasers, who in turn, will serve other businesses; will diversify the economy by providing expansion for heavy industrial businesses; and provide a reinvestment in the local economy through the expansion or development of local businesses. Further, the project will meet the Population, Growth and Land Resources Priority Guidelines (HRS, 226-104) by encouraging urban growth in an area which is designated for urban expansion. As previously noted, there are other light and heavy industrial uses currently operating in close proximity to the proposed project. Further, the reclassification of the property from the State "Agricultural" District to the State "Urban" District will make available marginal lands for heavy industrial uses while maintaining neighboring lands for agricultural purposes.

2, Hawaii State Functional Plans. The State Functional Plans implement the Hawaii State Plan by identifying needs, problems and issues, and by recommending policies and priority actions which address the identified areas of concern. The request for reclassification comports with the following State Functional Plans:

1. *State Agriculture Functional Plan*

The proposed action will reclassify 86.03 acres of land from the State "Agricultural" District to the State "Urban" District. The subject parcel has a Land Study Bureau rating of "E" (the lowest rating) which indicates that it is poorly suited for agriculture. The site is not classified under the State's agricultural lands rating system (Agricultural Lands of Importance to the State of Hawaii) which indicates that it is not considered "prime", "unique" or "other" agricultural land. While the subject parcel was formerly used for hog farming, it has not been used for agriculture cultivation for some years due to its poor soil. The proximity of the property to existing and planned urban land uses coupled with its location within the Urban Growth Boundary for the Maui Island Plan provides a reasonable nexus and an appropriate foundation for the request for reclassification.

2. *State Transportation Functional Plan*

Comments were sought and received from the State Department of Transportation (DOT) as part of the consultation process for the Environmental Assessment and further review for the District Boundary Amendment.

3. *State Employment Functional Plan*

It is estimated that the land use and subdivision approval process for the proposed project will take approximately four to five years (from 2011). As such, subdivision construction could begin in 2016 (or commence as early 2015), while the forecasted construction period is projected to be about 30 months. The subsequent lot build-out period for the subdivision is expected to last approximately 10 years. An annual average of 65 direct and indirect Maui jobs is projected during the subdivision's construction period, while an annual average of 142 direct and indirect Maui jobs is forecasted for the subdivision's lot build-out phase. It is likely that they will require some training for equipment or computer skills. To the extent possible, employment opportunities generated by the proposed project will seek to utilize State training programs for potential employees.

3. Maui Countywide Policy Plan. As stated in the Maui County Charter, as amended in 2002:

The General Plan shall indicate desired population and physical development patterns for each island and region within the county; shall address the unique problems and needs of each island and region; shall explain the opportunities and the social, economic, and environmental consequences related to potential developments; and shall set forth the desired sequence, patterns, and characteristics of future developments. The general plan shall identify objectives to be achieved, and priorities, policies, and implementing actions to be pursued with respect to population density, land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design, and other matters related to development.

The County of Maui 2030 General Plan Countywide Policy Plan, adopted by the Maui County Council on March 19, 2010, is the first component of the decennial General Plan update. The Countywide Policy Plan replaces the General Plan as adopted in 1990 and amended in 2002. The Countywide Policy Plan acts as an over-arching values statement and umbrella policy document for the Maui Island Plan and the nine Community Plans that provides broad goals, objectives, policies, and implementing actions that portray the desired direction of the County's future. The plan includes:

1. A vision statement and core values for the County to the year 2030
2. An explanation of the plan-making process
3. A description and background information regarding Maui County today
4. Identification of guiding principles
5. A list of countywide goals, objectives, policies, and implementing actions related to the following core themes:
 - A. Protect the Natural Environment
 - B. Preserve Local Cultures and Traditions
 - C. Improve Education
 - D. Strengthen Social and Healthcare Services
 - E. Expand Housing Opportunities for Residents
 - F. Strengthen the Local Economy
 - G. Improve Parks and Public Facilities

- H. Diversify Transportation Options
- I. Improve Physical Infrastructure
- J. Promote Sustainable Land Use and Growth Management
- K. Strive for Good Governance

The Countywide Policy Plan sets forth broad goals, objectives, policies, and actions that reflect the desired direction of future growth in the County. In terms of context, those that relate to the proposed action are listed below:

Goal: F. Strengthen the Local Economy

Objective: 1. Promote an economic climate that will encourage diversification of the County's economic base and a sustainable rate of growth.

Policies: 1a. Support economic decisions that create long-term benefits.
 1d. Support and promote locally-produced products and locally-owned operations and businesses that benefit local communities and meet local demand.

Analysis: The proposed project will have a positive effect on the State and local economy and is not expected to have an adverse impact on economic conditions in the State of Hawaii and the County of Maui.

Objective: 3. Significantly increase the use of renewable and green technologies to promote energy efficiency and energy self-sufficiency.

Policy: 3i. Promote the retrofitting of existing buildings and new development to incorporate energy-saving design concepts and devices.

Analysis: All lot owners will be encouraged to utilize water and energy conservation measures when developing their parcels in the future.

Objective: 4. Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.

Policies: 4a. Capitalize on existing infrastructure capacity as a priority over infrastructure expansion.
 4d. Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner.

Analysis: The subject property and the lands in the vicinity of the project site are either planned or designated for future urban development. The subject parcel, the Pu`unene Airport Master Plan (PAMP) area, and Project District 10 (PD 10) all fall within the Urban Growth Boundaries (UGB) for the Maui Island Plan and are designated for urban expansion by the Plan.

Goal: J. Promote Sustainable Land Use and Growth Management

Objective: 1. Improve land use management and implement a directed-growth strategy.

Policies: 1b. Direct urban and rural growth to designated areas.

Analysis: The subject property is situated in an appropriate area for urban expansion and development. The subject parcel and the lands in the vicinity of the project site are either

planned or designated for future urban development. The subject parcel, the PAMP area, and PD 10 all fall within the UGB for the Maui Island Plan and are designated for urban expansion by the Plan.

Objective: 3. Design all developments to be in harmony with the environment and to protect each community's sense of place.

Analysis: All lot owners and all buildings and accessory structures that are built within the subdivision will be required to comply with the Covenants, Conditions, and Restrictions and the Design Guidelines for the subdivision, a coordinated set of documents that will enforce the design, development, and land use standards for the Pu'unene Heavy Industrial Subdivision.

Objective: 4. Improve and increase efficiency in land use planning and management.

Policy: 4b. Ensure that new development projects requiring discretionary permits demonstrate a community need, show consistency with the General Plan, and provide an analysis of impacts.

Analysis: The subject parcel is located in an appropriate area for urban expansion and development.

In light of the foregoing, the proposed project is deemed to be consistent with the Countywide Policy Plan for the 2030 General Plan.

4. Maui Island Plan. The Maui Island Plan ("MIP") was adopted by the County Council as Ordinance No. 4004 on December 21, 2012, and became effective with the Mayor's signature on December 28, 2012. The Introduction to the Maui Island Plan starts with "The Purpose of the Maui Island Plan", stating that:

The Maui Island Plan accomplishes the following:

- Assesses existing conditions, trends, and issues specific to the island of Maui;
- Provides policy direction for the use and development of land, extension and improvement of transportation services and infrastructure, development of community facilities, expansion of the island's economic base, provision of housing, and protection of natural and cultural resources;
- Establishes policies to manage change and to direct decisions about future land use and development; and
- Provides the foundation to set capital improvement priorities, revise zoning ordinances, and develop other implementation tools.

The MIP is guided by the following Vision Statement and Core Values:

Maui Island Vision

*Ua mau ke ea o ka `āina i ka pono
Maui Island will be environmentally, economically, and culturally
sustainable with clean, safe, and livable communities and small
towns that will protect and perpetuate a pono lifestyle for the
future.*

Core Values

To achieve our island's vision, we will be guided by the following values:

- A. Adopt responsible stewardship principles by applying sound natural resource management practices;
- B. Respect and protect our heritage, traditions, and multi-cultural resources;
- C. Plan and build communities that include a diversity of housing;
- D. Retain and enhance the unique identity and sense of place;
- E. Preserve rural and agricultural lands and encourage sustainable agriculture;
- F. Secure necessary infrastructure concurrently with future development;
- G. Support efforts that contribute to a sustainable and diverse economy for Maui;
- H. Create a political climate that seeks and responds to citizen input;
- I. Respect and acknowledge the dignity of those who live on Maui;
- J. Establish a sustainable transportation system that includes multiple modes, including walking, biking, and mass transit, as well as automobile-based modes; and
- K. Recognize and be sensitive to land ownership issues and work towards resolution.

The proposed project is in keeping with the MIP goals, objectives and policies and importantly is located within the Urban Growth Boundary in the Kihei-Makena region. It should be noted that the Property lies within the Urban Growth Boundary, as well as within the overall boundaries of the "Kihei-Makena Planned Growth Areas". The MIP describes that growth area as follows:

"The Pulehunui planned growth area encompasses just over 639 acres and is located in the ahupua'a of Pulehunui and to the east of Mokulele Highway. The planned growth area will be used primarily for heavy industrial, public/quasi public, and recreational purposes. Commercial uses should be limited."

Furthermore, the MIP goes on to developing the Planned Growth Area Rationale for this area as follows:

"The Pulehunui planned growth area envisions land uses that are compatible with surrounding agricultural operations. The planned growth area represents a logical expansion of industrial land use in the area. The area's location, midway between Kihei and Kahului, makes it an ideal site to serve the island's long-term heavy industrial land use needs. Development of the area must ensure the protection of view corridors along Mokulele Highway as well as mauka and makai view planes. Linear-strip development along Mokulele Highway is strongly discouraged. Buildings should be set back significantly from the highway, and all traffic-light timing along Mokulele Highway should be coordinated for optimum traffic flow."

5. Kihei-Makena Community Plan. According to the Kihei-Makena Community Plan the Property is currently identified as Agriculture. A Community Plan Amendment will be sought from the County of Maui to bring the Property into the "Heavy Industrial" district. Maui County has adopted nine community plans. Each community plan examines the conditions and needs of the planning region and outlines objectives, policies, planning standards and

implementing actions to guide future growth and development in accordance with the Maui County General Plan. Each community plan serves as a relatively detailed agenda for implementing the broad General Plan themes, objectives and policies.

The locations and land use categories shown on the community plan map serve to guide growth and future development in the South Maui region. The Kihei-Makena Community Plan (KMCP), which was first adopted by Ordinance No. 1490 in 1985, was updated in 1998 as part of the County's decennial review of the various community plans. The updated KMCP was adopted by Ordinance No. 2641 and went into effect on March 6, 1998. The subject parcel is designated Agriculture by the community plan's land use map.

The granting of the Community Plan Amendment (from Agriculture to Heavy Industrial) will provide an appropriate area for purely heavy industrial uses in Central Maui. The proposed action is in consonance with the following community plan objectives, policies, and standards:

LAND USE

Goal

A well-planned community with land use and development patterns designed to achieve the efficient and timely provision of infrastructural and community needs while preserving and enhancing the unique character of Maalaea, Kihei, Wailea, and Makena, as well as the region's natural environment, marine resources, and traditional shoreline areas.

Objectives and Policies

- k. Provide for moderate expansion of services in the Central Maui Baseyard. These areas should not be used for retail businesses or commercial activities. These actions will place industrial use near existing and proposed transportation arteries for the efficient movement of goods.
- r. Allow special permits in the State Agricultural Districts to accommodate unusual yet reasonable uses.

ECONOMIC ACTIVITY

Goal

A diversified and stable economic base, which serves resident and visitor needs while providing long-term resident employment.

Objectives and Policies

- a. Establish a sustainable rate of economic development consistent with concurrent provision of needed transportation, utilities, and public facilities improvements.

PHYSICAL AND SOCIAL INFRASTRUCTURE

Goal

Provision of facility systems, public services, and capital improvement projects in an efficient, reliable, cost effective, and environmentally sensitive manner which accommodates the needs of the Kihei-Makena community, and fully support present and planned land uses, especially in the case of project district implementation.

Liquid and Solid Waste

Objectives and Policies

- b. Provide efficient, safe, and environmentally sound systems for the reuse, recycling, and disposal of liquid and solid wastes.

Energy and Public Utilities

Objectives and Policies

- g. Encourage the provision of public utilities, which will meet community needs in a timely manner.

GOVERNMENT

Goal

Efficient, effective, and responsive government services in the Kihei-Makena region.

Objectives and Policies

- b. Continue to streamline the permit process, where appropriate, through means such as consolidated public hearings and concurrent processing of applications.
- c. Continue to expedite the review and approval process for projects, which will result in public benefit by “fast tracking” and the assignment of permit expeditors.

- 6. County of Maui Zoning. The proposed Project will require a Change in Zoning from Agricultural to the district called M-3, Restricted Industrial. Generally, M-3, Restricted Industrial zoning encompasses those uses that involve the manufacture, processing, storage, or treatment of goods from raw materials. The intent of M-3 zoning is to provide for manufacturing and nuisance industries and exclude retail and office uses. Some of the uses permitted under M-3 zoning include: canneries; factories; manufacturing facilities; major utility facilities; landfills, lumber yards; machine shops; rock quarries; and material recycling/processing facilities. The minimum lot size under M-3 zoning is 10,000 square feet, while the minimum lot width is 75 feet and the maximum building height is 90 feet. Side and rear setbacks are zero feet or the same as the adjoining zoning category whichever is greater.

In order to develop the proposed subdivision, land use consistency must be established among the current State land use, community plan, and zoning designations for the subject property. Section 18.04.030 of the Maui County Code regarding subdivisions states in pertinent part that “*the director shall not approve any subdivision that does not conform to or is consistent with the county general plan, community plans, land use ordinances, the provisions of the Maui County Code, and other laws relating to the use of land . . .*”. As final subdivision approval would be subject to this provision, the land owner is seeking the change in zoning to establish State land use, community plan, and zoning consistency for the subject property.

In accordance with this request, the land owner submits that the proposed action meets the following criteria for a zoning change as set forth in Section 19.510.040 of the Maui County Code.

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

Analysis: The proposed request meets the intent of the Maui County General Plan and the objectives and policies of the Kihei-Makena Community Plan which guides growth and development in the region through the year 2010.

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

Analysis: The subject property and the lands in the vicinity of the project site are either planned or designated for future urban development. The subject parcel, the Pu'unene Airport Master Plan area, and Project District 10 all fall within the Urban Growth Boundaries for the Maui Island Plan and are designated for urban expansion for by the Plan. As such, the subject property is located in an appropriate area for future urban expansion and development and is consistent with the Maui Island Plan which will guide future growth on the island of Maui through 2030 and also serve as guidance for the community plan update process which will commence in the near term.

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

Analysis: The change in zoning request meets the purpose and intent of the existing and proposed heavy industrial zoning regulations. The granting of the proposed request would provide the land owner with the appropriate land use entitlements for the long-term use of the subject property for heavy industrial purposes.

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

Analysis: The proposed subdivision will not have a significant impact on public or private services, facilities, and infrastructure systems nor is it expected to adversely affect or interfere with public requirements, conveniences, and improvements.

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

Analysis: The proposed action will not adversely impact the social, cultural, economic, environmental, and ecological character and quality of the surrounding area.

6. *If the application for change in zoning involves the establishment of an agricultural district with a minimum lot size of two acres, an agricultural feasibility study shall be required and reviewed by the Department of Agriculture and the U.S. Soil Conservation Service.*

Analysis: Not applicable.

The reclassification of the subject parcel will not adversely affect neighboring land uses, as the existing character of the agricultural-zoned properties in the surrounding area will be maintained. From a long-term perspective, the reclassification of the subject property will provide land use consistency for the subject property and establish an appropriate area for heavy industrial activities. It will also increase the limited inventory of lands that are currently available for purely

heavy industrial use, and create new business and employment opportunities for island residents.

AGRICULTURE

The Hawaii Department of Agriculture reviewed the Petition and the FEA. In a letter to the Office of Planning dated May 31, 2013, the Department of Agriculture “has reviewed the subject petition and the Final Environmental Assessment and does not object to the Petitioner’s request, as we believe the project will not adversely affect the existing agricultural activities or agricultural resources of the area. HDOA offers the following comments on the petition and FEA for the subject lands:

- 100% of the subject lands are rated “E” by the Land Study Bureau’s Detailed Land Classification for the Island of Maui. 100% of the land is not classified according to the Agricultural Lands of Importance in the State of Hawaii. The subject lands are vacant and undeveloped.
 - Petitioner plans to construct three wells (two active, 1 backup) onsite to draw brackish groundwater from the Kahului Aquifer. The estimated gallons per day needed for the completed project is 424,000 gallons. Petitioner’s permit application for well construction and pump installation for the Project Area has been approved by the Commission on Water Resources Management.
 - The Maui Island Plan placed the subject lands within the Pulehunui planned growth area, and the subject lands are within the Urban Growth Boundary. All of the subject lands are designed “Agricultural” in the Kihei-Makena Community Plan. Petitioner has submitted an application for an amendment to the Community Plan to change the designation.
 - The proposed project is not expected to have an adverse impact on surrounding agricultural uses. The Maui County Kihei-Makena Community Plan Project District 10 and the Pu’unene Airport Master Plan area are to the west of the subject lands. The Project District 10 encompasses 561 acres to meet future recreational motor sports needs. Sugar cane fields owned by HC&S are to the north, east, and south of the Petition area. While development of the subject lands will likely produce additional odor, dust, smoke, and noise, existing agricultural operations will not be adversely affected.
 - The land owner for the completed project will inform prospective lot owners of occasional noise and air quality impacts associated with sugar cane cultivation. Prospective lot owners will also be informed that Hawaii Revised Statute Chapter 165 entitled “Hawaii Right to Farm Act” limits the circumstances under which preexisting farming operations may be deemed a nuisance.”
2. Section 19.30A.020 of the Maui County Zoning Ordinance states that “Agricultural lands that meet at least two of the following criteria should be given the highest priority for retention in the agricultural district:

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

100% of the site is unclassified under the ALISH designations (Criterion A), and criterion B is not met. Therefore, the Maui County Zoning Ordinance would not consider that the property “should be given the highest priority for retention in the agricultural district.” Although surrounding lands are used for sugar cane production, this area has been designated within the Urban Growth Boundary to accommodate heavy industrial uses.

ARCHAEOLOGICAL, HISTORIC AND CULTURAL RESOURCES

Existing Conditions. Scientific Consultant Services, Inc. (SCS) conducted an Archaeological Inventory Survey (AIS) of the subject parcel and the alignment for the alternate access road. Field work for the inventory survey was undertaken in June 2011. A large portion of the project area had been previously surveyed by International Archaeological Research Institute, Inc. (IARII) in 1999 as part of an AIS for the area. The 1999 IARII inventory survey identified two archaeological sites within the project area including a section associated with the former Naval Air Station (NAS) Pu`unene – State Site 50-50-09-4164 – and a post-World War II cattle ranching site – State Site 50-50-09-4801. In addition to leading to the relocation of these two sites, the SCS survey assessed the presence/absence of features within both sites and identified previously undocumented features within each site.

A majority of the historic features within the project area have been heavily impacted by modern mechanical clearing and ensuing debris removal. In general, most of the features that comprise State Site 50-50-09-4164 were mechanically impacted, abandoned, and neglected. The historic features associated with State Site 50-50-09-4801 were abandoned and neglected, but not mechanically impacted. Archival research has indicated the northern half of the subject parcel had been utilized for hog farming and scrap metal storage site, while the southern half of the property remained fallow.

A total of 15 previously unrecorded features, interpreted as either NAS Pu`unene-related or post-war cattle ranching-related features, were recorded by the SCS survey. Of the 15 newly recorded features, three features were located in the post-war cattle ranching area around State Site 50-50-09-4801, while the remaining 12 features were located in the former NAS Pu`unene area (Housing Area A) around State Site 50-50-09-4164.

To supplement their surface pedestrian survey, a total of 20 stratigraphic trenches were mechanically excavated by SCS. Only one stratigraphic trench (ST-6) revealed the presence of subsurface architecture at Facility 177 (SCS Site T-25). The feature was initially utilized as a military storehouse and converted for animal husbandry purposes.

Potential Impacts and Mitigation Measures. The 2011 SCS inventory survey recorded 15 new features associated with State Site 50-50-09-4164 and State Site 50-50-09-4801 which are significant under Criterion D for their information content. State Site 50-50-09-4164 has also been assessed as significant under Criterion A, as it has yielded information important to the history of Maui. These 15 features have been recorded and subsumed under the existing State site numbers.

Since two inventory surveys of the project area have already been conducted (IARII-1999, SCS-2011), it seems unlikely that any new information would be gleaned from further archaeological investigation. As such, the SCS inventory survey recommends no further archaeological work for the larger portion of the project area. Because the alignment for the alternate access road was only subject to a pedestrian survey, archaeological monitoring is recommended since the archaeological features that were documented on the east and west sides of the alternate access road could be impacted by ground-altering construction activities.

The SCS inventory survey of the project area was approved by the State Historic Preservation Division (SHPD) on June 18, 2012. SCS prepared an Archaeological Monitoring Plan (AMP) for the proposed project in October 2011.

The AMP is varied in that full-time archaeological monitoring will be conducted if the alternate access road is constructed. For the remainder of the project area, intermittent monitoring is recommended since two inventory surveys of the area have already been conducted (IARII-1999, SCS-2011) and the area has been subject to intensive ground-altering activities in the past with minimal probability that subsurface deposits would be located.

The AMP has been prepared in accordance with Chapter 13-279, Hawaii Administrative Rules (*Rules Governing Standards for Archaeological Monitoring Studies and Reports*).

Key provisions set forth in the AMP for the proposed project include the following:

1. A qualified archaeologist intimately familiar with the project area and the results of previous archaeological work conducted in the Pu`unene area will intermittently monitor subsurface construction activities in the proposed project area. Full-time Monitoring is only recommended should the alternate road access be created. During Monitoring, one archaeologist will be required per each piece of ground altering machinery in use. No land altering activities will occur on the parcel until this AMP has been accepted by the SHPD. If significant deposits or features are identified and additional field personnel are required, the archaeological consultants conducting the Monitoring will notify the contractor or representatives thereof before additional personnel are brought to the site.
2. If features or cultural deposits are identified during Monitoring, the on-site archaeologist will have the authority to temporarily suspend construction activities at the significant location so that the cultural feature(s) or deposit(s) may be fully evaluated and appropriate treatment of the cultural deposit(s) is conducted. SHPD will be contacted to establish feature significance and potential mitigation procedures.
3. Control stratigraphy in association with subsurface cultural deposits will be noted and photographed, particularly those containing significant quantities or qualities of cultural materials. If deemed significant by SHPD and the contracting archaeologist, these deposits will be sampled, as determined by the same.
4. In the unlikely event that human remains are encountered, all work in the immediate area of

the find will cease; the area will be secured from further activity until burial protocol has been completed. The SHPD island archaeologist and SHPD Cultural Historian will both be immediately identified as to the inadvertent discovery of human remains on the property. Notification of the inadvertent discovery will also be made to the Maui/Lanai Island Burial Council by the SHPD Maui staff or the contracting archaeologist.

5. To ensure that contractors and the construction crew are aware of this AMP and possible site types to be encountered on the parcel, a brief coordination meeting will be held between the construction team and monitoring archaeologist prior to initiation of the project. The construction crew will also be informed as to the possibility that human burials could be encountered and how they should proceed if they observe such remains.
6. The archaeologist will provide all coordination with the contractor, SHPD, and any other groups involved in the project. The archaeologist will coordinate all Monitoring and sampling activities with the safety officers for the contractors to ensure that proper safety regulations and protective measures meet compliance. Close coordination will also be maintained with construction representatives in order to adequately inform personnel of the possibility that open archaeological units or trenches may occur in the project area.

In a letter dated August 24, 2012, the SHPD approved the monitoring plan for the proposed project.

An archaeological monitoring report will be prepared and submitted to the SHPD within 180 days after the completion of fieldwork. If any cultural features or deposits are identified during fieldwork, the sites will be evaluated for historical significance and assessed under State and Federal significance criteria. In light of the foregoing, the proposed project is not expected to have an adverse effect on archaeological or historic resources.

Cultural Resources

Existing Conditions. In September 2011, Scientific Consultant Services, Inc. (SCS) prepared a Cultural Impact Assessment (CIA) for the proposed project. Enacted by the State Legislature in 2000, Act 50 requires that an assessment of cultural practices be included in environmental assessments and environmental impact statements, and that the potential impacts a proposed action may have in an area where cultural activities are currently, or were previously practiced, be considered during project planning. The purpose of the CIA was to identify any extant areas where cultural activities are currently, or were previously conducted within a project site or area, and evaluate the effect a project may have on cultural resources, practices or beliefs; the potential to isolate cultural resources, practices or beliefs from their setting; and the potential for introducing elements which may alter the setting in which cultural practices take place. The CIA was prepared in accordance with the suggested methodology and content protocol set forth in Office of Environmental Quality Control's Guidelines for Assessing Cultural Impacts (1997).

As noted in the CIA, the project area is located in the lands of Pulehu Nui which translated literally means "large pūlehu" but since *pulehu* means "broiled" it might refer to the degree of broiling one could receive from the sun in this area (Pukui *et al*, 1974).

The *ahupua`a* of Pulehu Nui extended across the Kula plain up through Makawao, to the edge of Haleakala and would have included fruitful sections and not just arid plains. The word "*kula*" meant "open country or plain" according to Handy and Handy (1972), and was often used to differentiate between dry or *kula* land and wet-taro land. The height and size of Haleakala to the east prevents moisture from reaching its southern and western flanks, causing desert-like conditions

throughout the region. As noted by Handy and Handy, "This is an essential characteristic of Kula, the central plain of Maui which is practically devoid of streams. Kula was always an arid region, throughout its long, low seashore, vast stony *kula* lands, and broad uplands."

As the sugar industry developed in the mid-1800s, more and more land was leased or purchased for this profitable endeavor. Since the availability of water was an issue, the Hamakua Ditch Company was formed 1876, and within two years, was bringing water from the streams of Haleakala to four plantations in East Maui (Dorrance and Morgan, 2000).

With the success of the Hamakua Ditch, Claus Spreckels formed the Hawaiian Commercial & Sugar (HC&S) Company and decided to construct a ditch system in East Maui (above the Hamakua Ditch) for his newly acquired land (Wilcox 1996). Spreckels' Haiku Ditch extended 30 miles, from Honomanu Stream to the Kihei boundary and the water was used to irrigate his cane lands in the Central Maui plains. Presently, the Haiku Ditch ends at the HC&S reservoir abutting the project area to the north.

After the annexation of Hawaii in 1898, some of the sugar planters on Maui, including Alexander and Baldwin (A&B), combined their operations to form the Maui Agricultural Company, a co-partnership that initially encompassed seven plantations and two mills. In 1904, five new plantations became part of the Maui Agricultural Company, one of which included the Makawao Plantation Company, which encompassed the section of Pulehu Nui containing the project area. In 1948, Maui Agricultural Company merged with HC&S (Dorrance and Morgan, 2000).

In 1937, a portion of the cane fields to the west of the project area was turned into a civil airfield for the Territory of Hawaii, as the airfield at Maalaea had become too small. Two years later, Inter-Island Airways began service to Maui, landing at the Pu`unene Airport.

In 1940, with the threat of a world war looming on the horizon, the U.S. Navy began using the Pu`unene Airport, along with a small Army Air Corps support base, at the airfield. At this time, the air station was being used to support Squadron VU-3, which towed targets and operated drones for the Pacific Fleet. In 1942, shortly after the United States entered World War II, the project area and other land in the vicinity of the airport was condemned pursuant to a Declaration of Taking that was filed with the U.S. District Court for the Territory of Hawaii. As a result, the Pu`unene Airport was expanded and commissioned as Naval Air Station (NAS) Maui. In addition to lengthening and widening the runways, the Navy added flight simulators (Link trainers) and changed its name to NAS Pu`unene. By 1945, the base supported over 3,300 personnel and 271 aircraft, and encompassed 2,202 acres, two paved runways, taxiways, ramps, hangars, and auxiliary buildings. A total of 106 squadrons and carrier groups passed through NAS Pu`unene during WW II.

In 1947, the U.S. Navy returned the Pu`unene Airport to the Territory of Hawaii. The airfield was apparently used as the official inter-island Airport for Maui until at least 1952 when the Kahului Airport became available for civil use. However, the Maui/Pu`unene airstrip, as it was known, serviced crop-dusters and other smaller aircraft and was not abandoned as a landing strip until sometime between 1961 and 1977. Some former military facilities such as bunkers, revetments, and other remnants still exist today. The land comprising NAS Pu`unene was sold back to HC&S by the State of Hawaii except for 222 acres which were transferred to the County of Maui for public and recreational purposes under Executive Order 4024.

Existing recreational uses within this 222-acre area include facilities for drag racing, dirt bike racing, go-kart racing, autocross racing, oval (dirt) track racing, and an area for flying radio-controlled model aircraft.

In recent times, the northern half of the subject parcel had been used for hog farming and as a scrap metal storage site, while the southern half of the property remained fallow.

Potential Impacts and Mitigation Measures. The preparation of the CIA involved archival and documentary research, as well as consultation with agencies, organizations, and individuals having knowledge of the project area and its cultural resources, practices. As part of the CIA process, SCS consulted with the State Historic Preservation Division – History and Culture Branch and Maui Cultural Branch; the Office of Hawaiian Affairs (OHA) – Oahu and Maui Branches; the Maui Planning Department; the Maui County Cultural Resource Commission; the Central Maui Hawaiian Civic Club; Hale Mahaolu and Kimoeko Kapahulehua. A Cultural Impact Assessment Notice was also published in *The Honolulu Star-Advertiser* and *The Maui News*, on July 20, 21, and 24, 2011, and the August issue of the OHA newspaper (*Ka Wai Ola*).

Long time Maui resident Hugh Starr was also consulted and provided copies of reference documents and a map pertaining to the World War II use of the area. In addition, OHA did not have any CIA referrals but provided some project-related comments which were provided to the land owner. None of the other consulted parties provided any referrals or information about potential cultural resources or cultural activities occurring in the project area.

The project area has not been used for traditional or historic cultural purposes within recent times and in light of the historical and cultural research that has been conducted for the CIA, it is reasonable to conclude that the exercise of native Hawaiian rights (or any ethnic group) related to gathering, access or other customary activities will not be affected by the development of the proposed project. In addition, since no cultural activities were identified within the project area, no adverse effects are anticipated.

In light of the foregoing, the proposed project is not expected to have an adverse effect upon cultural resources.

INFRASTRUCTURE AND PUBLIC FACILITIES AND SERVICES

1. **Water - Existing Conditions.** Domestic water service for the island of Maui is provided by a public water system which is operated and maintained by the Maui Department of Water Supply (DWS). In addition to Wailuku-Kahului and Kihei-Makena, the department's Central Maui System serves, Waihee, Waiehu, Waikapu, Maalaea, Spreckelsville, and Paia. The main supply sources for the Central Maui System include the Waihee Aquifer, the Iao Tunnel, the Iao-Waikapu Ditch, and the Iao Aquifer, which was designated as a protected water source in 2003 by the State Commission on Water Resource Management,

The Central Maui System does not extend to or serve the project site, although an 8-inch County water line along Kama`aina Road serves some of the surrounding properties. From this point, the water is conveyed to Kihei via a 36-inch transmission line along Mokulele Highway.

The Central Maui System is currently at or near capacity and may not be able to provide sufficient source or storage for the proposed project. In light of the foregoing, Tom Nance Water Resource Engineering (TNWRE) prepared a report in September 2011 which examined the development of onsite groundwater to provide drinking water and non-drinking water for the proposed project. The report examines groundwater resources in the area, provides estimates of the drinking water and non-non-drinking water needs for the project, identifies the water system infrastructure required to meet this need, and analyzes the

probable effect the project may have on groundwater resources.

Groundwater Resources. Data on groundwater occurrence in the Central Maui isthmus comes primarily from wells, a number of which HC&S have used for sugar cane irrigation for more than 70 years. Groundwater in the isthmus occurs as a relatively thin basal lens floating on saline groundwater at depth and in hydraulic contact with seawater along the Kahului and Maalaea coastlines. The Kahului Aquifer has drinking water quality in some locations and brackish water in most of its remaining area. The proposed project plans to use the underlying brackish groundwater and will not be utilizing a drinking water supply. In addition, there are no existing or proposed other higher priority water uses of groundwater in this part of the Kahului Aquifer.

As designated by the State Commission on Water Resource Management (CWRM), the Kahului Aquifer has a sustainable yield of 1.0 million gallons per day (MGD), an amount which is based exclusively on rainfall recharge on less than half of the aquifer's total area and does not account for other sources of recharge. Other sources of recharge (natural and man-made) are substantially larger: underflow from Haleakala, surface runoff from Haleakala, underflow from the West Maui Mountains, surface runoff from the West Maui Mountains, leakage from the East Maui and Waihe'e Ditch systems, and irrigation return from HC&S sugar cane fields. Historically, the sources of recharge have supported pumpage from the aquifer of 45 MGD for many decades.

The rainfall runoff as underflow from outside the aquifer, particularly from Haleakala, would sustain an order of magnitude yield greater than the 1.0 MGD sustainable yield specified by CWRM even if HC&S were to cease operations including its importation of ditch water. Present pumpage is in excess of 25 MGD, most of it by HC&S. The total estimated groundwater use for the proposed project is roughly 0.5 MGD. The location of this draft is miles from the nearest wells and will have no impact on these wells. If HC&S no longer cultivates sugar cane, a substantial amount of that aquifer's recharge would be reduced or eliminated altogether. However, it would also mean that about 25 MGD of pumpage from the aquifer would also cease. The wells for the proposed project are well positioned, with respect to the aquifer's natural sources of recharge, to continue to be viable.

Drinking Water and Non-drinking Water Requirements. To estimate the projected drinking water and non-drinking water demand for the proposed project, the DWS design standard for industrial development of 6,000 gallons per day per acre was used. The landscape irrigation demand for the subdivision's internal roadway system and drainage retentions basins were also factored in. The 30/70 ratio that the City and County of Honolulu uses for drinking water and non-drinking water uses on industrial lands was utilized in determining the project's estimated drinking water demand. Based on the foregoing, the projected drinking water demand is estimated to be an average of 118,800 gallons per day (gpd), while the non-drinking water requirement is projected to be an average of 305,200 gpd.

Proposed Water System Infrastructure. To provide an onsite groundwater supply for drinking water and non-drinking water uses, the TNWRE report recommends the installation of three wells with a capacity of 300 gallons per minute (gpm) each, including standby capacity. To treat the well water for drinking water use, the report proposes three reverse osmosis (RO) treatment trains with a capacity of 75 gpm each, with one train providing standby capacity. For water storage, the report recommends a 0.25 million gallon (MG) reservoir for drinking water storage and a 0.40 MG reservoir for non-drinking water storage.

Since both reservoirs would be at grade and therefore would not provide sufficient pressure

for drinking water and non-drinking water uses, two automated, multiple pump stations would be installed to maintain pressure throughout each of the distribution systems. To ensure fire protection is not impacted by a power outage, backup generator power will be provided for the non-drinking water booster pump.

The source wells, RO treatment trains, storage reservoirs, and pump stations would be located near the north end of the proposed subdivision.

Potential Impacts and Mitigation Measures. The TNWRE report also analyzed the probable effect the proposed project may have on groundwater resources. Further discussion of these probable effects follows below.

Impacts on Groundwater Resources. Since the ground surface across the subject parcel is very permeable and because there are no natural drainageways across the property, storm water runoff flowing onto the project site from up gradient areas or from the site onto down gradient areas is not known to occur. The conceptual development plan for the subdivision calls for transporting the runoff into retention basins along the western edge of the site where it will evaporate and/or percolate into the ground. As such, the proposed project will not impact surface water sources. Its impacts will be limited to the underlying groundwater. These effects, which are quantified in detail in the TNWRE report, will consist of the following.

- Withdrawal of groundwater for non-drinking water use and as feed water for the RO treatment process to produce drinking water.
- Disposal of the RO concentrate in onsite disposal wells.
- Disposal of treated domestic wastewater in leach fields.
- Percolation of excess landscape irrigation and industrial wash water.
- Change in the quality of onsite rainfall percolating to groundwater.

Groundwater Flow Rate. Since the aquifer's sources of recharge come from various directions and because there is significant pumping at all active HC&S well batteries, the direction and rate of groundwater flow is not precisely known. As such, the following approximations were made for assessment purposes.

- Beneath the project site, the direction of flow is from northeast to southwest; perpendicular to this direction, the width of the project site is 0.63 mile.
- The groundwater level is 3.6 feet above mean sea level.
- The groundwater gradient is on the order of 0.6 feet per mile, equivalent to 0.00112 ft/ft.
- The permeability coefficient is 10,000 feet per day.

For the preceding approximations, the groundwater flow rate beneath the project's 0.63-mile width is approximately 4.0 MGD.

Groundwater Quality. A short-term pump test and water quality sampling of an existing onsite well (State No. 4927-01) was conducted in July 2010. A relatively high level of nitrate-nitrogen, a result of ongoing agricultural activities was found. However, none of the detected constituents exceed the levels allowed by the U.S. Environmental Protection Agency (EPA) and the State Department of Health for drinking water use. During the pump test, the salinity of the pumped water was stable and only slightly brackish. It should be noted that Well 4927-01 is not in use nor is it suitable for use because it was improperly constructed and allows contaminants to enter groundwater via its open annular space. Also, the well casing

is too small to be of any use and has come apart in numerous places.

For the aquifer as a whole, salinities are consistently low except near shore at the north end of Maalaea Bay where caprock is present. High nutrient levels, particularly nitrate-nitrogen, are present throughout the aquifer. For purposes of assessing potential project-related impacts to groundwater resources, the present quality of the groundwater underlying the project site was taken to be: salinity of 0.80 parts per thousand (PPT), nitrogen concentration of 330 micro-molar (μM), and phosphorus concentration of 3.4 μM .

Estimated Post-Development Changes to the Groundwater Flow Rate. The project's onsite wells will draw water from the underlying groundwater, but some of this water will be returned in the form of RO concentrate, wastewater from septic systems, excess landscape irrigation, and percolating wash water from the non-drinking water system. With the uses and returns to groundwater as estimated in the TNWRE report, the net consumptive use of groundwater would be 0.23 MGD. This would be a 5.8 percent reduction of the estimated 4.0 MGD flow of groundwater directly beneath the site.

Estimated Post-Development Changes to Groundwater Salinity and Nutrient Levels. Based on data from onsite Well 4927-01 and others nearby, it was assumed that the underlying groundwater has a salinity of 0.8 PPT, a nitrogen content of 330 micro-molar (μM), and a phosphorus content of 3.4 μM . This would also be the quality of water extracted by the supply wells. Except for the RO concentrate which will be delivered directly to groundwater, all of the other returns to groundwater described in the report will travel vertically through the sandy soil layer, alluvium, and unweathered lava to the groundwater below. These various strata will function as a trickling filter to naturally remove nitrogen and phosphorus. Expected removal rates are greater than 80 percent for nitrogen and more than 95 percent of phosphorus. The net effect to the 4.0 MGD of groundwater flowing directly beneath the project site is shown below.

- 5.7 percent reduction in flow rate.
- 3.8 percent increase in salinity.
- 1.3 percent increase in nitrogen.
- 7.1 percent increase in phosphorus.

All of these changes are modest and are considered to be insignificant from an aquifer-wide perspective. Currently, the only uses of groundwater down gradient of the project site are three wells in the Kealia National Wildlife Refuge. These wells are pumped seasonally when surface water is insufficient to maintain the pond and wetland areas. The estimated changes due to the development of the proposed project should have no impact on this ongoing use.

It should be noted that the proposed project plans to use the underlying brackish groundwater and will not be utilizing a drinking water supply. In addition, there are no existing or proposed *other* higher priority water uses of groundwater in this part of the Kahului Aquifer. For these reasons, the proposed water use is in conformance with the County's Water Use and Development Plan. This use is further supported by the approval of well construction and pump installation permits for the project by the State Commission of Water Resource Management (CWRM).

A Preliminary Engineering Report (PER) for the proposed project was prepared by Otomo Engineering in November 2011. The purpose of the PER was to examine the existing

infrastructure in the project area, evaluate the adequacy of the infrastructure, and recommend infrastructure improvements for the proposed project.

The conceptual land development plan for the proposed project currently calls for subdividing the subject parcel to create 28 developable lots. The water development plan for the proposed project will involve the construction of a dual water system which will provide water for drinking water and non-drinking water (irrigation, fire flow) uses.

Groundwater drawn from three onsite wells will serve as the source for non-drinking water use and will also serve as the source for the reverse osmosis (RO) process which will treat the groundwater for drinking water use.

The drinking water system for the proposed subdivision is defined as a Public Water System by Chapter 11-20, HAR for the State Department of Health (DOH), since it will provide water for human consumption and has at least 15 service connections or regularly serves a minimum of 25 persons daily for at least 60 days annually. Public water systems are regulated by the department's Safe Drinking Water Branch.

Utilizing the Domestic Consumption Guidelines set forth by the Department of Water Supply (DWS), as well as dual water system guidelines that recommend using a 30/70 ratio (drinking water/non-drinking water) for industrial lands, the drinking water demand for the subdivision's developable lots was determined to be about 118,620 gallons per day (gpd).

The non-drinking water requirement for the subdivision's developable lots, internal roadway, and landscaped and irrigated common areas was calculated to be approximately 305,030 gpd. As set forth by DWS standards, the fire flow requirement for heavy industrial uses is 2,500 gallons per minute for a two-hour period, while the maximum spacing between fire hydrants is 250 feet. The fire flow requirements for the proposed project will be addressed by the project's non-drinking water system.

As set forth in the Groundwater Resource and Water System Assessment, the following water system improvements are proposed for the subdivision.

- A total of three wells with a capacity of 300 gallon per minute (gpm) each, with one well providing standby capacity.
- A total of three reverse osmosis treatment trains with a capacity of 75 gpm each, with one train providing standby capacity.
- A 0.25 million gallon (MG) storage reservoir for drinking water use.
- A 0.30 million gallon (MG) storage reservoir for non-drinking water use.
- The drinking water and non-drinking water systems will each require a booster pump with a backup generator power for the non-drinking water pump station to ensure fire protection during a power outage.

In order for the dual water system to function as designed, provisions for the maintenance of the system will be included in the Covenants, Conditions, and Restrictions (CC&Rs) for the proposed subdivision. An association of subdivision lot owners will be formed to assume the responsibility of operating and maintaining the system in accordance with the CC&Rs.

In their letter dated July 2, 2012, the State Commission on Water Resource Management (CWRM) approved the issuance of well construction and pump installation permits for the groundwater wells for the project. The wells will be developed and operated in accordance with the Hawaii Well Construction and Pump Installation Standards established by CWRM.

These standards were created to protect and prevent the pollution, contamination, and wasting of groundwater, and minimize salt water intrusion into wells and groundwater.

In accordance with the Hawaii Administrative Rules (HAR) for the DOH, the water system for the proposed subdivision will comply with all applicable provisions of Title 11, Chapter 20, HAR (*Rules Relating to Drinking water Systems*); Title 11, Chapter 21, HAR (*Cross-connection and Backflow Control*) and Title 11, Chapter 25, HAR (*Rules Pertaining to Certification of Public Water System Operators*).

It should also be noted that Section 11-20-29.5, HAR (*Capacity Demonstration and Evaluation*), requires all new private water systems to demonstrate appropriate technical, managerial, and financial capacity in order to receive DOH approval for construction and operation. These requirements ensure that the water system is constructed to current County and DOH standards and has access to an adequate water source(s) both as to quality and quantity. Professional operation of the system by a private water system operations company using DOH certified operators, and ownership by an association that is solely responsible for all legal, and financial aspects of the system are among the requirements. Fiscal management by a professional financial management company and maintenance of adequate reserve funds to address emergencies and replacements ensure that financial requirements can be met. A developer funded cash reserve is required and can be returned to the developer only after the water association has successfully developed its own financial reserves. Recorded covenants on each parcel serviced by the system provide the water association with the ability to levy assessments to meet operational needs so that the system remains within regulatory requirements. Ultimately, the water association has the ability to lien properties serviced by the system to provide the resources to maintain the system in compliance with all applicable regulatory requirements.

Prior to the start of construction, an application for the subdivision's water system will be prepared and submitted to the DOH, Safe Drinking Water Branch for their review and approval.

The proposed water system improvements will also be consistent with the *Rules and Regulations of the Department of Water Supply*. As subdivision lots are developed in the future, lot owners will be required to submit fire flow calculations to the Maui Department of Fire and Public Safety in conjunction with the building permit review and approval process. Lot owners will be encouraged to utilize water conservation measures when developing their parcels in the future. Examples of such measures include, but are not limited to the following: automatic drip and sprinkler irrigation systems with time controllers and rain sensors, drought-tolerant landscape plantings, and low-flow plumbing fixtures.

Since heavy industrial uses will be determined by future lot owners, specific activities that would occur within the subdivision are presently unknown. Nonetheless, because heavy industrial uses have the potential to affect the environment, the Covenants, Conditions, and Restrictions (CC&Rs) for the proposed subdivision will require that all lot owners prepare and implement Best Management Practices (BMPs) and emergency response plans that are specific to the heavy industrial use on their lots. The CC&Rs will also stipulate that lot owners must comply with all applicable Federal, State, and County laws including regulations governing water use and water quality. An association of subdivision lot owners shall be formed and will be responsible for reviewing the development plans of each lot owner and for ensuring compliance with the CC&Rs.

In Hawaii, a use or activity including a potential pollution source is subject to the regulatory review and approval process in which detailed information about the use or activity is evaluated, potential impacts are identified, and appropriate mitigation measures are prescribed. If a regulatory permit or approval is granted, specific terms of compliance are set forth depending on the nature of the potential impacts.

In light of the foregoing, the proposed project is not expected to result in any adverse long-term impacts to surface and groundwater resources nor will it affect the County's water system infrastructure.

2. **Wastewater - Existing Conditions.** The Maui Department of Environmental Management is responsible for a public wastewater system that handles the collection, transmission, treatment, and disposal of sewage in most areas of Central, South, and West Maui. In the Central Maui region, the department operates and maintains a network of sewer lines and pump stations that conveys sewage to the Wailuku-Kahului Wastewater Treatment Plant for treatment and disposal. There are no County wastewater facilities within or adjacent to the project site. The nearest County sewer system is located in Kihei, about 2.3 miles to the south of the site.

Potential Impacts and Mitigation Measures. A Preliminary Engineering Report for the proposed project was prepared by Otomo Engineering in November 2011. As previously noted, the closest County sewer system is in Kihei, approximately 10,000 feet south of the project site.

The Draft EA indicated that wastewater collection and treatment for the proposed subdivision originally would be handled by a private wastewater system consisting of sewer transmission lines and manholes within internal subdivision roads. As lots within the subdivision are developed, lot owners would be required to install an individual wastewater system (IWS) on their lots and connect to a sewer lateral linked to the subdivision wastewater system. Wastewater from each lot would then be conveyed to a central leach field within the subdivision.

In their June 19, 2012 letter commenting on the Draft EA, the State Department of Health's (DOH), Wastewater Branch indicated that it will not allow multiple IWS to discharge into a central leach field and that a separate leach field must be provided for each IWS. In response to these comments, the wastewater treatment plan for the proposed subdivision has been modified to call for the installation of an IWS consisting of an aerobic treatment unit and leach field for each lot. As indicated by the DOH, this type of IWS can be used within 1,000 feet of drinking water sources and wells. The cost and installation of the IWS will be borne by individual lot owners when their lots are developed in the future.

All lot owners must comply with Chapter 11-62, HAR (*Wastewater Systems*), which ensures that the disposal of wastewater (including gray water) does not contaminate or pollute water resources, create a public nuisance, and does not pose a hazard or potential hazard to public health, safety, and welfare. As lots within the subdivision are being developed, lot owners must submit their IWS plans to the DOH for review and approval.

Because future lot owners will determine the heavy industrial use on their lots, specific activities that would occur within the subdivision are presently unknown. Notwithstanding this, since heavy industrial uses have the potential to affect the environment, the Covenants,

Conditions, and Restrictions (CC&Rs) for the proposed subdivision will require that all lot owners prepare and implement Best Management Practices (BMPs) and emergency response plans that are specific to the heavy industrial use on their lots. The CC&Rs will also stipulate that lot owners must comply with all applicable Federal, State, and County laws including regulations governing wastewater treatment. Provisions for the installation and maintenance of the IWS on each lot will also be included in the CC&Rs. The subdivision Lot Owner's Association will be responsible for reviewing the development plans of each lot owner and for ensuring compliance with the CC&Rs.

In Hawaii, a use or activity including a potential pollution source is subject to the regulatory review and approval process in which detailed information about the use or activity is evaluated, potential impacts are identified, and appropriate mitigation measures are prescribed. If a regulatory permit or approval is granted, specific terms of compliance are set forth depending on the nature of the potential impacts.

In light of the foregoing, the proposed project is not expected to result in any adverse impacts to surface and groundwater resources nor will it affect the County's wastewater collection and treatment facilities.

3. **Drainage - Existing Conditions.** The subject parcel slopes in an easterly to westerly direction with on site elevations ranging from 140 feet above mean sea level (amsl) to 120 feet amsl with an average slope of 1.8 percent.

Storm water runoff on the subject property was calculated by using the rational method and the 50-year, one-hour storm event for drainage areas less than 100 acres. The criteria used for the hydrologic calculations are from the Rules for the Design of Storm Drainage Facilities in the County of Maui (1995).

Existing runoff at the project site was estimated to be 75.2 cubic feet per second (CFS), while the pre-development runoff volume is 135,400 cubic feet (CF). Runoff from the project site presently sheet flows across the site in a westerly direction onto downstream parcels and towards Mokulele Highway. The proposed project will not involve discharges into Class 1 (inland) waters or Class AA (marine) waters of the State of Hawaii.

Potential Impacts and Mitigation Measures. A Preliminary Engineering Report for the proposed project was prepared by Otomo Engineering in November 2011. The drainage system for the proposed subdivision will be designed to accommodate the incremental increase in runoff generated by the development of the entire project site.

The master drainage system for the subdivision will provide a drain stubout to each developable lot, as well as curb-inlet catch basins, manholes, and drain lines within the subdivision's internal roadway system. As individual lots are developed in the future, lot owners will be required to install their own onsite drainage system and provide a drain line connection to the drain stubouts on each lot. The post-development runoff from each lot will then be conveyed to a series of retention basins along the western edge of the subdivision. The retention basins will be designed and built to accommodate the increase in runoff from the fully-developed subdivision.

Based on the 50-year, one-hour storm event, post-development runoff is projected to be

328.5 CFS, while runoff volume is projected to be 413,900 CF. The incremental increase between the pre- and post-development conditions is 253.3 CFS in runoff and 278,500 CF in runoff volume.

Regardless of the magnitude of a storm event, no surface water (runoff), is expected to reach Maalaea Beach. Studies have indicated that the mud cap rock along the southern two-thirds of Maalaea Bay prevents groundwater discharge along the shoreline, forcing it further offshore where it is thoroughly mixed to background ocean water levels. As a result, any impact to groundwater flowing beneath the project site and flowing south toward Maalaea Bay will not adversely impact the beach's water quality, including its turbidity and chlorophyll *a* levels.

In order for the master drainage system to function as designed, provisions for the maintenance of the system will be included in the Covenants, Conditions, and Restrictions (CC&Rs) for the proposed subdivision. The association of subdivision lot owners will assume the responsibility of operating and maintaining the system pursuant to the CC&Rs. Examples of measures to facilitate the operation and maintenance of this system include, but are not limited to, the following.

- Inspect the drainage system on an annual basis and after major storms. Repair any damage and remove debris from grated drain inlets to allow unimpeded flow.
- Periodically inspect the drainage system. Remove debris and sediment build up as necessary especially inside grated drain inlets upstream of the subsurface retention basins.
- Prevent grass and landscape cuttings from entering the drainage system as they could cause blockages.
- Clean all parking areas as often as possible in order to keep debris and sediments from entering the drainage system.
- Keep lawns and landscaping in healthy condition to prevent soil erosion and reduce the possibility of sediments entering the drainage system.

The drainage system for the proposed subdivision will be designed in accordance with the Rules for the Design of Storm Drainage Facilities in the County of Maui (1995). An erosion control plan, including Best Management Practices (BMPs), and a drainage plan and report shall be submitted to the Maui Department of Public Works for review and approval prior to the issuance of grubbing and grading permits for the proposed project. The BMPs shall comply with Chapter 20.08 of the Maui County Code entitled Soil Erosion and Sedimentation Control. In addition, since site work for the project will exceed one acre, a National Pollutant Discharge Elimination System (NPDES) Permit for general coverage will be obtained from the Clean Water Branch of the State Department of Health for the discharge of storm water associated with construction activities such as clearing, grading, and excavation.

Since future lot owners will determine the heavy industrial use on their lots, specific activities that would occur within the subdivision are presently unknown. Nevertheless, because heavy industrial uses have the potential to affect the environment, the CC&Rs will require that all lot owners prepare and implement BMPs and emergency response plans that are specific to the heavy industrial use on their lots. The CC&Rs will also require that lot owners comply with all applicable Federal, State, and County laws including regulations governing storm water runoff and erosion control. The association of subdivision lot owners will be responsible for reviewing the development plans of each lot owner and for ensuring compliance with the CC&Rs.

In Hawaii, a use or activity including a potential pollution source is subject to the regulatory review and approval process in which detailed information about the use or activity is evaluated, potential impacts are identified, and appropriate mitigation measures are prescribed. If a regulatory permit or approval is granted, specific terms of compliance are set forth depending on the nature of the potential impacts.

In light of the foregoing, the proposed project is not expected to result in any significant impacts to surface and groundwater resources nor will it adversely affect adjacent and downstream properties.

4. **Roadways and Transportation - Existing Conditions.** Linking Kahului and Kihei, Mokulele Highway is a four-lane, divided roadway with a north-south alignment. The highway has a posted speed limit of 45 miles per hour and a separate bike path along its east side.

In the project area, Mokulele Highway forms a four-legged, signalized intersection with Kama`aina Road to the east and Mehamaha Loop to the west. The north and southbound approaches of the highway have separate left- and right-turn deceleration and turn/storage lanes. The north and southbound left-turn lanes allow protected turning movements. The eastbound (Mehameha Loop) and westbound (Kama`aina Road) approaches have one travel lane in each direction.

Access from Mokulele Highway to the subject parcel is provided by Kama`aina Road, South Firebreak Road, and Lower Kihei Road. Mokulele Highway and Kama`aina Road both fall under the jurisdiction of the State Department of Transportation (DOT).

Near its intersection with Mokulele Highway, Kama`aina Road has a 24-foot wide concrete-paved section that extends about 1,500 feet eastward before changing to a 24-foot wide asphalt-paved section to match up with South Firebreak Road.

From its nexus with Kama`aina Road, South Firebreak Road heads south to provide access to adjacent sugar cane fields and the Hawaiian Cement Quarry. South Firebreak Road transitions to Lower Kihei Road approximately 500 feet southwest of the Quarry Access Road.

Lower Kihei Road varies in surface width with asphalt pavement ranging from 20 to 22 feet. Lower Kihei Road proceeds in a southerly direction to provide access to the project site, an HC&S irrigation reservoir, and sugar cane fields along its alignment.

Access from Mokulele Highway to the subject Property will be furnished over State land controlled by the DLNR. On April 12, 2013, the land owner obtained approval from the State DLNR for a grant of non-exclusive access and utility easement over approximately 9.43 acres of State land, which provides a 56-foot wide access and utility easement from Mokulele Highway to the subject Property.

The external roadways providing access to the proposed subdivision and the internal roads within the subdivision shall utilize flexible design standards as provided by Section 18.32.030 of the Maui County Code pertaining to General Criteria for Flexible Design Standards. The subdivision's internal roadways will be owned and maintained by the Lot Owner's Association. In conjunction with the processing of the subdivision application for the proposed project, the flexible design standards will be submitted to the Maui Department of

Public Works (DPW) for review and approval.

The County of Maui provides public bus transportation between Kihei and Kahului. The Kihei Islander (bus) route takes passengers along Mokulele Highway at one-hour intervals from 5:30 AM to 9:30 PM.

Potential Impacts and Mitigation Measures. A Traffic Impact Analysis Report (TIAR) for the proposed project was prepared by Phillip Rowell and Associates in September 2011.

Since the land owner's current plan is to subdivide the property, there is no estimate as to when the actual development of the lots will be completed. Therefore, 2015 was used as an estimated project completion date. This time frame is compatible with traffic studies for other major projects within and adjacent to the study area. The year 2015 was also used as the horizon or design year for which background traffic conditions (future traffic conditions without the proposed project) are estimated.

These future traffic projections were calculated by evaluating existing traffic volumes, annual growth rates, and traffic generated by other proposed projects in the vicinity. The levels-of-service at the following intersections were evaluated for the TIAR.

- Mokulele Highway, Kama`aina Road, and Mehamaha Loop (signalized).
- South Firebreak Road and Quarry Access Road (unsignalized). This intersection is associated with the Primary Access Road.
- South Firebreak Road and Project Access Road (unsignalized). This intersection is associated with a formerly proposed Alternate Access Road, which is no longer applicable.
- Quarry Access Road and Project Access Road (unsignalized). This intersection is also associated with a formerly proposed Alternate Access Road, which is no longer applicable.

The study intersections were analyzed using methodology for signalized and unsignalized intersections set forth in the 2000 Highway Capacity Manual.

Existing Traffic. Traffic counts were taken at the study intersections to determine existing peak hour traffic volumes. Since Kama`aina Road provides access to the Hawaiian Cement Quarry and experiences a lot of heavy truck traffic, heavy vehicles were also counted.

The morning peak hour along Mokulele Highway is from 7:15 to 8:15 AM and is consistent with 2010 traffic counts taken at the highway's intersection with North Kihei Road, the next signalized intersection to the south. The total AM peak hour volume along the highway is approximately 2,200 vehicles per hour (VPH). The direction of travel is evenly split (50/50) and left and right turns are minimal.

Heavy vehicles make up most of the traffic turning into and out of Kama`aina Road. For outbound vehicle traffic during the morning peak hour, 80 percent of the left turning vehicles and 67 percent of the right turning vehicles are heavy vehicles. For traffic turning into Kama`aina Road from Mokulele Highway, 48 percent of the left turning vehicles and 17 percent of the right turning vehicles are heavy vehicles.

The afternoon peak hour along Mokulele Highway is from 3:30 to 4:30 PM. The total PM peak hour traffic volume along the highway is 2,380 VPH. The directional traffic distribution is 50/50. During the afternoon peak hour, all of the southbound left turns from Mokulele Highway to eastbound Kama`aina Road are heavy vehicles and 83 percent of the right turns from northbound Mokulele Highway to eastbound Kama`aina Road are heavy vehicles. Of

the outbound traffic during the afternoon peak hour, 73 percent of the left turns from westbound Kama`aina Road to southbound Mokulele Highway are heavy vehicles.

The peak hour volumes along Mehameha Loop are approximately 35 VPH during the morning peak hour and 40 VPH per hour during the afternoon peak hour. There were no heavy vehicles along Mehameha Loop during both peak hours.

The peak hour volumes along Kama`aina Road are 57 VPH during the morning peak hour and 36 VPH during the afternoon peak hour. Heavy vehicles make up 25 percent of the traffic along Kama`aina Road during the AM peak hour and 22 percent during the PM peak hour.

Level-of-Service. This term is used to describe any of an infinite number of traffic operating conditions that may occur on a given travel lane or roadway when it is subjected to various traffic volumes. Level-of-Service (LOS) also measures the effect various factors have on traffic including factors such as space, speed, travel time, traffic interruptions, safety, driving comfort, convenience, and freedom to maneuver. LOS is expressed in a qualitative manner through the use of six levels ranging from "A" through "F" with LOS "A" representing free-flowing traffic and no congestion and LOS "F" reflecting severe traffic congestion with stop-and-go conditions.

The Institute of Transportation Engineers' (ITE) publication, *Transportation Impact Analyses for Site Development* (2006), notes that LOS D is typically deemed acceptable for peak hour conditions in urban areas. Using this standard and applying this criterion to the overall intersection instead of each controlled lane group, no deficiencies were identified at the intersection of Mokulele Highway, Kama`aina Road, and Mehameha Loop. The overall intersection operates at LOS A during both morning and afternoon peak hours. The east- and westbound approaches, as well as the northbound left-turn lane and southbound left-turn lane operate at LOS D, which is considered an acceptable level-of-service.

Volume-to-Capacity Ratio. Corresponding to each level-of-service is a volume-to-capacity (V/C) ratio. This ratio expresses existing or projected traffic volumes in relation to the capacity of an intersection. Capacity is defined as the maximum number of vehicles that can be accommodated by a roadway during a specified period of time. The capacity of a particular roadway is influenced by the number of lanes, the operational characteristics of the roadway (one-way, two-way, turn prohibitions, bus stops, etc.), the type of traffic using the roadway (trucks, buses, etc.), and turning movements. A signalized intersection with a volume-to-capacity (V/C) ratio greater than 1.000 corresponds to LOS F, while an intersection with a V/C ratio of 0.801 – 1.000 corresponds to LOS D, which is an acceptable level-of-service.

Trip Generation. The trip generation analysis is not based on zoning but is predicated on the anticipated land uses for the proposed project. The peak number of trips generated by the proposed project was estimated by using trip-generation rates for industrial parks. Based on the total area of the developable lots (65.92 acres), the project will generate 392 inbound and 80 outbound trips during the morning peak hour and 99 inbound and 372 outbound trips during the afternoon peak hour.

Trip Distribution. Using population distribution data from the *The Maui Long Range Land Transportation Plan* (1996), project-related trips were distributed among anticipated approach and departure routes. Based on population distribution estimates for 2015, 62 percent of project-related trips are projected to approach from and depart to the north, while the remaining 38 percent are expected to approach from and depart to the south.

The project will have no right of access to roadways in the Maui Raceway Park. In addition, retention basins along the western boundary of the project site will prevent any traffic connection between the subdivision and the Park. Therefore, all traffic was assigned to the intersection of Mokulele Highway, Kama`aina Road, and Mehamaha Loop.

Based on observations at the Central Maui Baseyard, which lies 1.3 miles to the north of the project site, and the Consolidated Baseyard, which is located about 3.0 miles to the northwest of the site, it is anticipated that 25 percent of the trips generated by the project will be made by heavy vehicles.

Background Traffic Conditions. From 1990 to 2020, traffic on Maui is expected to increase at an average annual rate of 1.6 percent according to *The Maui Long Range Land Transportation Plan* (1996). This growth rate was used to estimate the ambient background growth between 2011 and 2015, which is the design year for the proposed project. This growth factor was applied to the north- and southbound through traffic movements along Mokulele Highway. The other component used to estimate background traffic volumes is traffic resulting from other proposed projects in the vicinity that are either under construction or approved for construction. These "related projects" may be development projects or roadway improvements which could have a significant effect on traffic in the study area.

The background traffic projections were then calculated by expanding existing traffic volumes by the appropriate growth rates and then superimposing traffic generated by related projects.

Background Plus Project Conditions. This is defined as 2015 background traffic conditions plus project-related traffic and was estimated by superimposing the peak hourly traffic generated by the proposed project on peak hour 2015 background traffic volumes.

Level-of-Service Analysis. A level-of-service analysis (LOS) of background and background plus project conditions was conducted by analyzing the changes in traffic volumes and levels-of-service at the study intersections and project driveways. The incremental difference between these conditions quantifies the (traffic) impact of the project and was also used to help formulate appropriate mitigation measures.

The LOS analysis for 2015 background plus project conditions at the study intersections revealed the following:

1. *Mokulele Highway, Kama`aina Road, and Mehamaha Loop (signalized).*
 - The northbound left will operate at LOS E during the morning peak hour. However, the volume-to-capacity (V/C) ratio is 0.53, which means that the long delay is the result of the signal timing. No mitigation is required.
 - During the afternoon peak hour, the westbound approach will operate at LOS E, the southbound left will operate at LOS F, and the overall intersection will operate at LOS C. Since the V/C ratios for these movements are greater than 1.00, mitigation is required.

- Modifying the westbound approach to provide a separate right-turn lane will allow all controlled movements to operate at LOS D, or better. In addition, the overall intersection will operate at LOS B and all V/C ratios will be below 1.00.
 - Because of the large number of heavy trucks entering and exiting Kama'aina Road, the need for an acceleration lane for traffic turning from westbound Kama'aina Road to northbound Mokulele Highway was assessed. A review of *A Policy on Geometric Design of Highways and Streets* (1994), published by the American Association of State Highway and Transportation Officials, concluded that there are general guidelines regarding the need for an acceleration lane, but no traffic warrants. It should be noted that an acceleration lane was not provided at this intersection, or the intersection for the Central Maui Baseyard (1.3 miles to the north), when Mokulele Highway was widened from two to four lanes in 2008.
 - The projected number of heavy vehicles that would use an acceleration lane at this location is significantly higher than estimated for background without project conditions. The number of heavy vehicles is expected to increase from 10 to 22 vehicles per hour during the morning peak hour and from zero to 58 vehicles during the afternoon peak hour. Given this increase, and the potential impacts of heavy vehicle traffic on the capacity of intersections and roadways, it is recommended that an acceleration lane be provided for vehicles turning right from westbound Kama'aina Road to northbound Mokulele Highway.
2. *South Firebreak Road and Quarry Access Road (unsignalized).*
- This intersection has controlled lane groups and is associated with the Primary Access Road. No mitigation is required.
 - All project-related traffic at this intersection will head south to the proposed subdivision, while all Quarry-bound traffic will continue to use the Quarry Access Road. It was assumed that the Quarry Access Road approach will be STOP sign-controlled.
 - All controlled lane group movements at this intersection will operate at LOS A or B which indicates good operating conditions and minimal delays.
3. *South Firebreak Road and Project Access Road (unsignalized)*
- This intersection has controlled lane groups and is associated with the previously proposed Alternate Access Road. No mitigation is required.
 - All project-related traffic will turn onto the Project Access Road and all Quarry-related traffic will continue to use the Quarry Access Road. It was presumed that the Project Access Road approach will be STOP sign controlled.
 - All controlled lane group movements at this intersection will operate at LOS A or B which implies good operating conditions and minimal delays.
4. *Quarry Access Road and Project Access Road (unsignalized)*

- This intersection has controlled lane groups and is associated with the previously proposed Alternate Access Road. No mitigation is required.
- All north- and southbound traffic at this intersection will be project related, while all east- and westbound traffic is Quarry related. It was assumed that all approaches will be STOP sign controlled and that no turns will be allowed at this intersection.
- All controlled lane group movements at this intersection will operate at LOS A or B which reflects good operating conditions and minimal delays.

Findings. Recommended mitigation measures for the intersection of Mokulele Highway, Kama`aina Road, and Mehameha Loop are reflected in the following table.

<i>Intersection</i>	<i>Recommended Measures to Mitigate Existing (2011) Deficiencies</i>	<i>Recommended Measures to Mitigate Background Deficiencies</i>	<i>Recommended Measures to Mitigate Background Plus Project Deficiencies</i>
Mokulele Highway, Kama`aina Road, and Mehameha Loop	No mitigation required.	No mitigation required.	(1) Modify westbound approach to provide a separate right-turn lane. (2) Provide acceleration lane for west- to northbound right turns. (3) Lengthen southbound left-turn deceleration lane from 60 feet to 350 feet.

In addition to the foregoing, the traffic study also recommends the following.

1. The areas adjacent to Kama`aina Road, South Firebreak Road, and Lower Kihei Road should be monitored to insure that sugar cane growth does not impede sight distances and that the visibility of traffic control devices is maintained.
2. Because of the increased traffic volumes along Kama`aina Road, South Firebreak Road, and Lower Kihei Road as a result of the project, these roadways should be striped and signed in accordance with County of Maui standards. The high proportion of heavy vehicle traffic should be considered in the design and installation of traffic control devices, especially the longer stopping distances that are required for these vehicles.

Construction of the proposed project will primarily involve site work and the installation of subdivision infrastructure. After mobilization, construction equipment, materials and vehicles will be stored and secured onsite. As such, short term, construction-related traffic impacts are expected to be minimal. A Traffic Management Plan will be utilized to minimize impacts during peak hour traffic by controlling the delivery of construction materials and the arrival and departure of construction workers. All required traffic control plans and devices shall conform to the applicable provisions of the Manual on Uniform Traffic Control Devices (2009).

The sugar cane fields adjacent to the intersections in the project area are owned by Hawaiian Commercial & Sugar Company (HC&S) and are not under the control of the applicant. To ensure that sugar growth does not impede sight distance and that the visibility of traffic control devices is maintained, the applicant will work with HC&S to help minimize impacts. As part of the subdivision application process, a driveway sight distance analysis and worksheet (for the subdivision driveway) will be submitted to the Maui Department of Public Works for review and approval to ensure that adequate sight distance and visibility are provided.

As subdivision lots are developed in the future, lot owners will be required to provide onsite parking and loading space in accordance with Chapter 19.36A of the Maui County Code pertaining to Off-Street Parking and Loading.

The land owner will provide his fair-share contribution toward regional roadway improvements if legislation adopting regional traffic impact fees for the island of Maui is in place prior to final subdivision approval.

In light of the foregoing, the proposed project is not expected to have an adverse impact upon traffic.

5. **Electrical, Telephone and Cable - Existing Conditions.** Electrical power for the island of Maui is provided by Maui Electric Company (MECO), while communication systems are operated by Hawaiian Telcom and Oceanic Time Warner Cable (OTWC). Hawaiian Telcom provides local and long-distance telephone service, as well as high-speed internet and online cable television (CATV) service, while OTWC provides CATV service for the State of Hawaii, including Maui.

Existing overhead utility lines run along the right side of Kama`aina Road, South Firebreak Road, and Lower Kihei Road. The overhead lines provide service to the surrounding area and are located within an easement granted to MECO and Hawaiian Telcom. Although OTWC has an existing fiber optic line along Mokulele Highway, the closest service connection point is at the Central Maui Baseyard approximately 1.3 miles to the north of the subject parcel. Depending on feasibility and future market potential, OTWC has worked with land owners and developers to help defray installation costs (personal communication with Bill Hanke - OTWC, July 26, 2012).

Potential Impacts and Mitigation Measures. A Preliminary Engineering Report for the proposed project was prepared by Otomo Engineering in November 2011. To provide service to the proposed subdivision, new MECO and Hawaiian Telcom lines will be extended to the subject parcel from the existing overhead lines in the project area.

The new power and communication systems for the proposed subdivision will be installed underground in accordance with MECO and Hawaiian Telcom requirements. Street lights will be installed along the subdivision's internal roadway system at intervals to be determined by the project's electrical engineer.

The design and construction of the electrical and communication systems will be coordinated with MECO and Hawaiian Telcom to ensure that all applicable design and operational criteria are addressed. Construction drawings will be prepared and submitted to

MECO and Hawaiian Telcom for review and approval at such time in the future that an application for subdivision approval is filed with the County of Maui.

Exterior lighting will be appropriately shielded or downward directed to provide safety, security, and facilitate parking, and to minimize impacts to any migratory seabirds which may become disoriented when traversing the project area.

Lot owners will be encouraged to utilize energy generation and energy conservation measures when developing their parcels in the future. Examples of such measures include, but are not limited to: the use of windmills or photovoltaic panels to generate electricity, and the use of solar water heating systems, energy-efficient lighting and appliances, fiberglass insulation, double-glazed windows, skylights, and extended (roof) eaves to minimize heat gain through windows.

6. **Parks - Existing Conditions.** The subject property is located in the Kihei-Makena Community Plan region. The Maui Department of Parks and Recreation (DPR) operates and maintains a total of 16 parks in the South Maui region, including community and recreational facilities such as the Kihei Community Center and the Kihei Aquatic Center. In addition to the Elleair Maui Golf Club in Kihei, privately owned golf courses and tennis courts at the Makena and Wailea Resorts are open to the public.

Potential Impacts and Mitigation Measures. The proposed project does not trigger any of the following County requirements for park dedication: (1) a building or group of buildings containing or divided into three or more dwelling or lodging units, (2) a conversion of buildings from hotel to residential use, (3) the addition of dwelling or lodging units to a building or group of buildings in which the total unit count is three or more, (4) a subdivision within a project district, and (5) dwelling units and apartments associated with condominium property regimes.

In commenting on the Draft EA, the DPR stated that it was seeking a water source to address the Maui Raceway Park's (MRP) needs. In response to these comments, the Petitioner met with the DPR on August 6, 2012. Although a ¾-inch meter currently serves the MRP, the DPR would like a larger 1-1/2 inch meter but were informed by the Maui Water Department that a larger meter is unavailable. As a result, the DPR has been pursuing other potential water sources for the MRP. The private water system for the proposed project was also discussed. The land owner offered to hold follow-up discussions with the DPR to help develop a water system for the MRP on a pro-rata basis. However, because no County funds are available, the DPR indicated that it will likely refocus its efforts to obtain the larger water meter.

The proposed project will not have a significant impact upon recreational facilities.

7. **Schools - Existing Conditions.** The State DOE operates several schools in the Kihei area. Area students from Grades 9 to 12 attend Maui High School in Kahului.

Potential Impacts and Mitigation Measures. The proposed project does not include a residential component. As such no significant impacts to existing educational facilities are anticipated.

8. **Solid Waste - Existing Conditions.** The Solid Waste Division of the Maui Department of Environmental Management is responsible for the collection and disposal of single-family residential waste on the island of Maui. Private waste disposal contractors provide refuse collection for commercial and non-residential properties.

County landfills located in Hana, Central Maui, Lanai, and Molokai accepts residential and commercial solid waste for disposal. In addition to the disposal of solid waste, the Central Maui Landfill, which is located near Pu'unene, contains recycling, and composting facilities and also accepts green waste and used motor oil. The Maui Demolition and Construction Landfill, a commercial facility near Maalaea, accepts construction and demolition waste for disposal.

Potential Impacts and Mitigation Measures. During site work for the proposed subdivision, cleared and grubbed material may be used as mulch or transported to the County's green waste recycling facility at the Central Maui Landfill for disposal. Construction waste material would be hauled to the Maui Demolition and Construction Landfill for disposal.

After completion, refuse collection and disposal for the subdivision will be handled by a private waste disposal service under contract to an association of subdivision lot owners. The refuse generated by the proposed subdivision is not expected to have an adverse effect upon solid waste collection and disposal services and facilities.

9. **Public Services - Healthcare - Existing Conditions.** Located in Wailuku, the approximately 200-bed Maui Memorial Medical Center provides acute and emergency health care services for the County of Maui. Various private care physicians and clinics in the West Maui region also provide medical care and out patient services. In addition, American Medical Response (AMR) provides 24-hour emergency medical service through ten ambulance facilities stationed throughout the County, including eight facilities on the island of Maui and two facilities in Kihei.

Potential Impacts and Mitigation Measures. The proposed project is not expected to generate a demand for new or additional health care facilities nor will it have an adverse impact upon existing medical services. In addition, the proposed action will not adversely impact the ability of ambulances to respond to medical emergencies.

Police and Fire Protection Services - Existing Conditions. The Maui Department of Police is responsible for the preservation of the public peace, prevention of crime, and protection of life and property. The department's Kihei Patrol District is one of six such districts in Maui County. In addition to regular patrol duties, the Kihei Patrol District has a substation at 1881 S. Kihei Road, across from the Kihei Town Center, as well as programs for visitor and community oriented policing, and citizen patrols.

The mandate of the Maui Department of Fire and Public Safety is to protect life, property, and the environment from fires, hazardous material releases and other life-threatening emergencies. The department has 14 stations throughout the County including 10 stations on the island of Maui. In South Maui, the department has two stations, one in Kihei at 11 Waimahaihai Street and another in Wailea at 300 Kilohana Drive.

Potential Impacts and Mitigation Measures. Existing security measures for the subject parcel include perimeter fencing around the property and locked entry gates at roads providing access to the site. Appropriate lighting and security measures will be utilized

during and after construction of the proposed project for crime prevention and deterrence and to ensure safe vehicular movement. In addition, the project shall be developed in accordance with County fire protection requirements for fire flow and hydrant spacing, as well as the grade and clear widths of service roads.

The proposed project will not have an adverse effect upon the service capabilities of police, fire, and emergency medical operations nor will it extend the existing service area limits for emergency service.

The private water system for the proposed subdivision will provide water for drinking water and non-drinking water (irrigation, fire flow) purposes. As subdivision lots are developed in the future, lot owners will be required to submit fire flow calculations to the Department of Fire and Public Safety in conjunction with the building permit review and approval process.

SOCIO-ECONOMIC IMPACTS

Existing Conditions. With the possible exception of Kauai, Maui County is more dependent on tourism than any of Hawaii's four counties. Hotel occupancy rates for Maui typically exceed other areas in the State with the exception of Waikiki. When compared to other counties, Maui has a larger visitor industry relative to the size of its economy. Local government and businesses have worked very hard at cultivating Maui's worldwide image as a premier vacation destination.

Agriculture on Maui has been dominated by large operations like Maui Land & Pineapple Company (ML&P) and Alexander & Baldwin's Hawaiian Commercial & Sugar Company (HC&S).

In 2007, ML&P shut down the canning portion of its pineapple operations to rely solely on the more profitable fresh fruit segment. Further downsizing occurred in 2008, which resulted in a work force reduction of over 200 employees. In December 2009, ML&P announced the shut down of its agricultural arm, citing continued annual losses. However, a new company, Hali`imaile Pineapple Company, was formed shortly thereafter and immediately took over ML&P's pineapple operations.

HC&S survives as Hawaii's only remaining sugar operation due in part to its economies of scale, its land configuration (a relatively compact and contiguous area in the isthmus of the Valley Isle), and its commitment and ability over the years to reinvest and upgrade plant and equipment.

A Market Study has been prepared for the proposed project by ACM Consultants, Inc. The objectives of the study were: (1) to define and delineate the market area; (2) to identify and analyze the current supply and demand conditions specific to the subject's market; (3) identify, measure and forecast the effect of anticipated developments or other factors on future supply; and (4) forecast the effect of anticipated economic or other factors on future demand.

On the island of Maui, about 489 acres of land has been zoned for pre-existing *M-2, Heavy Industrial* uses, while in Central Maui, approximately 442 acres has been zoned for this purpose. The HC&S sugar mill in Pu`unene occupies approximately 40 acres, while the future power generation plant site for Maui Electric Company encompasses about 65 acres. Of the remaining 337 acres, much of the heavy industrial land is situated around Kahului

Harbor and the Kahului Airport. These lands are used for harbor and airport facilities and operations and were not considered available to the market.

Other heavy industrial areas in the Central Maui area include the Wakea Industrial Subdivision, Airport Industrial Subdivision, as well as portions of The Millyard and Maui (Kahului) Industrial Subdivision. The lands underlying Queen Ka`ahumanu Center, Maui Mall, and the former ML&P cannery are zoned for heavy industrial use, as well as the area around Hobron Avenue and two adjacent properties at the corner of Ka`ahumanu Avenue and Kahului Beach Road. Most of the land in Central Maui that is zoned for heavy industrial use has already been built upon or is being used as work or storage yards. The existing inventory of heavy industrial-zoned land for sale consists of 16 acres at five sites in Kahului and two locations in Wailuku. This land is located in areas that are considered unsuitable for heavy industrial use due to proximity impacts to adjacent residential and commercial development. In this case, the highest and best use of this land would be for commercial retail/office use, which is currently allowed by heavy industrial zoning.

There has not been any purely heavy industrial development in Central Maui for over a decade. During this period, the focus has been on the light industrial market as evidenced by the construction of Maui Business Park, Waiko Baseyard, Consolidated Baseyards, and the Maui Lani Village Center. The most recent development of heavy industrial land was for the Airport Triangle Subdivision, a project containing commercial retail/office centers and car dealerships. At present, the proposed project is the only heavy industrial development planned on Maui. As such, it is expected to alleviate the pent-up demand for purely heavy industrial land and provide individuals and businesses with the opportunity to purchase lots and build new facilities or expand their current operations.

Recently built subdivisions in Central Maui have focused on the light-industrial market and reflect significantly fast absorption rates. The 11 lots released by the developer of Waiko Baseyard in October 2005 totaled just over five acres and were absorbed within five months. This would indicate an absorption rate of 11.90 acres per year. The Consolidated Baseyards was completed in 2006, with 35 marketable lots totaling approximately 22 acres. There were 27 lots, totaling almost 16 acres, immediately sold between October and December 2006. The remaining eight lots, of approximately 6 acres, were sold in 2007. Overall monthly absorption averaged 1.6 acres, which would translate into about 19 acres per year.

The development of Waiko Baseyard and the Consolidated Baseyards occurred during the most recent peak in the real estate market as evidenced by their high absorption rates. Other projects which were brought to market during less robust times have experienced longer marketing periods. To account for the cyclical nature of the real estate market, all commercial/industrial subdivisions which were developed in Central Maui over the last 20 years were analyzed. A total of seven subdivisions were developed during this time. With the exception of the Maui Lani Village Center, which only began closing lots within the last two years, all other subdivisions have been successfully absorbed by the market. Over the last 20 years, approximately 174.74 acres of industrial land has been absorbed, which reflects a straight-line absorption rate of 8.74 acres per year.

Potential Impacts and Mitigation Measures. As previously noted, a Market Study has been prepared for the proposed project. The following points summarize the *supply* for heavy industrial real estate in the Central Maui region at this time.

- When compared to the light industrial market segment, there is very little developable heavy industrial land in Central Maui;
- Available vacant land is located in areas that are not conducive to heavy industrial use, due to the proximity of residential and commercial developments;
- Supply has diminished because of continued conversion to higher-order commercial retail/office uses allowed by the pre-existing *M-2, Heavy Industrial District's* "stacked" (or pyramid) zoning;
- Other than the Proposed Project, there are no other heavy industrial projects planned for Central Maui

The following points summarize the *demand* for heavy industrial real estate in the Central Maui region at this time:

- The growth of Maui's population has led to a greater need for light industrial goods and services providers; however, there has not been a coinciding creation of heavy industrial facilities to support light industrial users.
- Mortgage interest rates continue to be at all-time lows, which typically make real estate more affordable; however, there are few choices currently available within the heavy industrial market.
- The pent-up demand from heavy industrial users is expected to generate good interest for the proposed product.
- Potential businesses within the proposed subdivision are expected to be businesses that fabricate, process and manufacture materials needed by light industrial users and the general populace.

As noted in the Market Study, the proposed project is expected to be well received when considering current supply and demand considerations and other factors that are presently influencing the heavy industrial real estate market in Central Maui. The study also anticipates that the heavy industrial lots in the proposed subdivision can be sold within a 10-year period, which would translate into an absorption rate of approximately 6.6 acres per annum.

Economic impacts associated with development activities for the proposed project include the following.

1. Construction of the Subdivision and Complete Build-Out. It is assumed that the entitlement process will take approximately 4 to 5 years, with *subdivision construction* to begin in 2016. According to the land owner, *subdivision construction* costs are projected to be \$20,000,000, while the forecasted construction time is approximately 30 months, with an average construction cost of \$8,000,000 per year.

Based on an average lot size of 102,491 square feet, and an assumed building-to-land ratio of 30 percent, the average building size in the subdivision is projected to be about 31,000 square feet. Assuming the site work cost for each lot is approximately \$307,000 and the building construction cost is \$125 per square foot, the average development cost per

building is forecasted to be \$6,232,000 or \$174,504,000 for 28 buildings. It is also assumed that complete *build out of the subdivision* would take about 10 years, resulting in an average cost of \$17,504,000 per year. It is also assumed that the preceding costs are inclusive of all site work, roads, utilities, and landscaping and includes the cost of hiring various engineers (e.g, civil, mechanical, electrical, traffic) and consultants (soils, land use planning, archaeology, real estate appraiser).

2. Indirect Sales. Development and construction activities will also generate indirect sales, through the supply of goods and services to various construction companies and as a result of the “trickle down effect” to families of the employees. By the same token, the suppliers and their families will purchase goods and services from other companies thereby extending the cycle. This cause and effect scenario will continue repeating itself with some revenues eventually leaking out of Hawaii’s economy with each cycle.

Based on State economic multipliers, off-island indirect sales are projected to be about \$5,920,000 per year during the *subdivision construction*, while Maui indirect sales are forecasted to be approximately \$4,144,000 per year.

For the subsequent complete *build out of the subdivision*, off-island indirect sales are projected to be about \$14,348,000 per year. Meanwhile, Maui indirect sales during this period are forecasted to be approximately \$10,044,000 per year.

3. Sales of the Heavy Industrial Lots The 28 lots will have a total net land area of about 65.88 acres or approximately 2,869,733 square feet of heavy industrial zoned land. With a preliminary assumption of \$20.00 per square foot, lot sales are projected to generate gross sales revenue of about \$57,395,000.

4. Taxable Expenditures and Sales. Sales generated by *subdivision construction* are projected to total \$2,129,000 per year and are assumed to result from the personal spending by construction workers and indirect employees during this period. These sales are subject to the State’s General Excise Tax (GET) of 4.166 percent.

Intermediate sales, taxed at 0.5 percent, would result from construction expenditures and indirect sales related to *subdivision construction*, less personal spending by construction workers and indirect employees. As such, intermediate sales during *subdivision construction* are forecasted to be \$15,935,000 per year. When added to final sales, taxable expenditures and sales would amount to \$18,064,000 annually.

Final sales generated by the subsequent *build out of the subdivision* are projected to total \$10,411,000 per year and are assumed to result from the sales of subdivision lots plus the personal spending by construction workers and indirect employees during this period. These sales are subject to the State’s GET of 4.166 percent.

Intermediate sales, taxed at 0.5 percent, would result from construction expenditures and indirect sales related to the *build out of the subdivision* less any personal spending by construction workers and indirect employees. As such, intermediate sales during the *build out of the subdivision* are forecasted to be \$34,731,000 per year. When added to the final sales, taxable expenditures and sales would amount to \$45,142,000 annually.

5. Profits Realized. Projected profit and risk premiums from *subdivision construction* are projected to be \$2,206,000 per year, over the 30 month construction period. Meanwhile,

forecasted profit and risk premiums from the complete *build out of the subdivision* are expected to total \$5,387,000 per year over the 10-year period and factor in direct and indirect sales at all levels of business. For example, the land owner, general contractor, subcontractors, and goods and service providers all expect to make a profit for their efforts.

6. Direct and Indirect Employment. The design and entitlement process for the project creates new job opportunities for architects, engineers, surveyors, and land use planners. Site work and infrastructure development typically utilize heavy equipment operators, tractor-trailer drivers and utility personnel. Building construction and onsite improvements will require masons, painters, plumbers, roofers, carpenters, electricians, sheet metal workers, and drywall installers. Finish work will require landscapers, cabinet makers, carpet and tile installers, and interior decorators.

Construction employment will also provide hardware stores, building supply companies, equipment rental companies, and shipping, delivery, and warehousing companies with an opportunity to supplement their labor force. Construction laborers and their families will help support local goods and service providers and create or expand employment opportunities for other businesses in the community.

Based on State economic multipliers, direct jobs on Maui are projected to average 32 jobs annually, while indirect jobs are forecasted to average 33 jobs annually, resulting in an estimated annual average of 65 Maui jobs directly and indirectly tied to the *subdivision construction*. Meanwhile, indirect employment on Oahu could possibly add an average 17 jobs per year.

For the complete *build out of the subdivision*, 70 direct and 72 indirect Maui jobs are projected annually, resulting in an estimated annual average of 142 Maui jobs directly and indirectly tied to *build out of the subdivision*. Meanwhile, indirect employment on Oahu could possibly add an average of 38 jobs per year.

7. Direct and Indirect Payroll. Payroll directly related to *subdivision construction* is estimated to be \$1,962,000 per annum based on statistics from the State Department of Labor and Industrial Relations (DLIR) and previously referenced job counts. It is assumed that most construction positions will be filled by Maui laborers. Indirect Maui payroll is projected to be \$1,206,000 per year, while indirect Oahu payroll is forecasted to be \$703,000 annually. Total direct and indirect payroll attributed to the *subdivision construction* is estimated to be \$3,871,000 per year.

Payroll directly related to the complete *build out of the subdivision* is projected to be \$4,292,000 per annum. Construction positions are expected to be filled by Maui laborers. Indirect Maui payroll is forecasted to be \$2,632,000 per year, while indirect Oahu payroll is estimated to be \$1,570,000 annually. Total direct and indirect payroll attributed to the *build out of the subdivision* is projected to be \$8,494,000 per year.

8. Supported Population. Statistical information obtained from the DLIR indicates that 70 residents per year on Maui are expected to be supported by construction jobs related to *subdivision construction*, while 73 residents per year are expected to be supported through indirect jobs. About 36 Oahu residents are expected to be supported by indirect jobs created by the project. A total of 179 residents per year on Maui and Oahu are expected to be supported by *subdivision construction*.

About 154 residents per year on Maui are expected to be supported by construction jobs associated with the complete *build out of the subdivision*, while as many as 158 residents per year are expected to be supported through indirect jobs. Approximately 80 Oahu residents per year are expected to be supported by indirect jobs created by the project. A total of 392 residents per year on Maui and Oahu are expected to be supported by the *build out of the subdivision*.

9. Supported Households. Statistical information obtained from the DLIR indicates that as many as 24 households per year on Maui may be supported by construction jobs related to *subdivision construction*, while as many as 25 households per year may be supported through indirect jobs. As many as 12 Oahu households per year may be supported by indirect jobs created by *subdivision construction*. A total of 61 households per year on Maui and Oahu may be supported by *subdivision construction*.

About 52 households per year on Maui are expected to be supported by construction jobs associated with the complete *build out of the subdivision*, while as many as 54 households are expected to be supported through indirect jobs. Approximately 26 Oahu households per year are expected to be supported by indirect jobs created by the *build out of the subdivision*. A total of 132 households on Maui and Oahu are expected to be supported by the *build out of the subdivision*.

Economic impacts at stabilization of the project include the following.

1. Employment and Wages. As previously noted, the average lot size in the proposed subdivision is expected to be 2.353 acres. With a floor area to lot area ratio of 30 percent, the average building in the subdivision is projected to be about 31,000 square feet. Assuming a ratio of 500 square feet per employee, the proposed subdivision is forecasted to have approximately 1,736 employees upon stabilization. Assuming an average annual wage of \$38,025 per employee, the combined annual wages of the subdivision workforce is estimated to be \$66,011,000.

2. Gross Sales Revenue and Profit. Given its proposed heavy industrial use, \$250 gross sales revenue per square foot was assumed and applied to the total building area of the proposed subdivision. This resulted in estimated annual gross sales revenue of \$217,000,000 for the subdivision. Assuming an average profit margin of 10 percent, the annual profit generated within the subdivision from the gross sales revenue was calculated to be \$21,700,000 per year.

3. Property Values. Upon stabilization of the proposed subdivision, average property value is assumed to be \$6,232,000, or \$174,504,000 for the entire subdivision.

Public costs and benefits which would accrue to the County and State due to development activities for the proposed project include the following.

1. County of Maui.

The County typically accumulates revenue from development projects in the form of permit and impact fees. Permit fees cover the County's cost of providing services such as plans review, inspections, and public hearings, etc. Impact fees are more commonly associated with residential development; although as with commercial and industrial development, the

amount of the fees is usually based on offsetting the anticipated additional cost and burden on County services and facilities. In either case, no net cost or benefit was considered at the County level.

Cumulative expenditures typically include the County's share of infrastructure costs for expanding or improving water, sewer, drainage, and roadway systems or providing parks and playgrounds if applicable. It is assumed that the land owner will bear the vast majority of these development costs.

2. State of Hawaii

The majority of the revenues that will accrue to the State will be in the form of various taxes, such as Conveyance Tax, Excise Tax, Corporate Income Tax, and Personal Income Tax. For purposes of the Market Study, a conveyance tax based on \$0.20 per \$100 of value has been utilized for lot sales. With an average lot value of approximately \$2,357,000, the conveyance tax that would be due is about \$132,000.

Excise tax is based on two rates, 4.166 percent for final sales and 0.5 percent for intermediate sales. Over the course of subdivision construction and the subsequent build out of the subdivision, the cumulative tax expectancy for final sales would amount to \$4,559,000, while intermediate sales should equal \$6,495,000.

Corporate Income Tax is realized on profits gained through subdivision construction and the subsequent build out of the subdivision which is projected to be \$3,801,000. Meanwhile, personal income tax is forecasted to be \$3,974,000. As such, cumulative revenues related to subdivision construction and the subsequent build out of the subdivision would amount to \$14,401,000.

Cumulative expenses to the State are not expected. The primary access point to the proposed subdivision is at Mokulele Highway, a State roadway with a signalized intersection. Since heavy commercial truck traffic already exists in the area, it is assumed that there would not be a need to expand traffic control measures on Mokulele Highway. Notwithstanding this, it is assumed that the land owner will bear the vast majority of any required roadway improvement costs.

Public costs and benefits which would accrue to the County and State at stabilization of the project include the following.

1. County of Maui

Upon stabilization, benefits that would accrue to the County will be in the form of real property taxes. As previously noted, the net taxable value of 28 improved heavy industrial lots is determined to be about \$165,895,000. The 2011 tax rate for industrial land (PITT Code 400) is \$7.00 per \$1,000 of assessed value. As such, the tax obligation for the 28 improved lots is calculated to be \$1,161,000 per year.

The proposed project will be built on TMK (2) 3-8-008-019. According to the County's Real Property Tax Division, the land owner currently pays approximately \$3,000 per year in

property taxes. This amount was deducted from its annual revenues at stabilization since the County will no longer receive this income. The resulting net real property tax revenue at stabilization is estimated to be about \$1,158,000 annually.

The County's annual costs at stabilization are for general services, public safety, and infrastructure maintenance. These expenditures are more commonly attributed to residential development; however, for purposes of the Market Study, proportionate per-capita annual expenditures were utilized and were based on the assumption that each employee is also a resident of Maui County. The Market Study notes that by using this methodology the results represent what is likely the high end of the annual cost expectancy to the County.

On a per-capita basis, the annual cost for services is projected to be about \$2,779 per year, plus debt service of \$226 per year. Assuming each employee spends about 20 percent of their time at the job site, the proportionate annual cost for County services is forecasted to be \$556, with proportionate annual debt service of \$45. The resulting net cost is estimated to be \$1,043,000.

2. State of Hawaii

Upon stabilization, benefits that would accrue to the State would be through the receipt of Personal Income Tax, Excise Tax, and Corporate Income Tax as a result of the ongoing businesses. On an annual basis, personal income tax from (subdivision) employee wages would amount to \$2,772,000, while excise tax on the gross sales revenue of the businesses is projected to be \$9,040,000 per year. Corporate income tax as a result of the gross sales revenue of the businesses is forecasted to be \$1,389,000 per year. Total annual revenues at stabilization are estimated to be \$13,201,000.

Annual expenditures to the State were said to be from services to residents, and debt service attributed to general improvements. Proportionate per-capita annual expenditures were utilized, similar to the County cost analysis. The Market Study notes that by using this methodology, the results represent what is likely the high end of the annual cost expectancy to the State.

On a per-capita basis, the annual cost for services is projected to be about \$7,442 per year, plus debt service of \$359 per year. Assuming each employee spends approximately 20 percent of their time at the job site, the proportionate annual cost for County services is forecasted to be \$1,488, with proportionate annual debt service of \$72. The resulting net cost is estimated to be \$2,708,000.

The development of the proposed subdivision is expected to generate significant expenditures by the land owner, as well as by secondary owners and those involved in the separate development of the heavy industrial lots. These investments are expected to have a beneficial impact upon both State and County economies on a broad scale and in a multitude of ways.

1. Site work and infrastructure construction for the proposed subdivision will immediately infuse capital into the County and State economies. Numerous consultants will be involved in the initial planning stages and the construction trades will benefit from the jobs created by the project.

2. Advertising for the proposed project and the marketing of the lots will benefit graphic artists, advertising companies, newspapers, real estate sales agents, escrow companies, etc.
3. Site work and the development of each individual lot (by secondary owners) will result in additional work for engineers, architects, material suppliers, equipment rentals and sales, landscaping companies, and other related industries.
4. The new buildings (by individual lot owners) will not only attract existing businesses but should also stimulate the generation of new businesses and employment growth. This will have an indirect affect on retail businesses, restaurants and service establishments as the expanded workforce purchases goods and services. This cause and effect scenario should pass through the entire community, causing a ripple effect and increase the amount of capital flowing through Maui.
5. Upkeep of the proposed subdivision and buildings will also translate into work for maintenance companies, painting companies, real estate management and leasing groups, etc.
6. During the development of the proposed subdivision, fiscal benefits to the State of Hawaii will be realized through the receipt of additional income tax, general excise tax, and conveyance tax associated with construction activities. Based on the assumptions contained in the Market Study, the cumulative benefits over the course of the development, which includes subdivision construction and subsequent build out of the subdivision, are anticipated to outweigh the public cost to the State.
7. Upon stabilization, fiscal benefits from the ongoing operation of the proposed subdivision will include increases in real estate taxes collected by the County of Maui, as well as additional income tax and general excise tax inflow for the State of Hawaii. Based on the assumptions contain in the Market Study, the resulting annual public benefits are expected to consistently outweigh annual public costs, at both the County and State levels.

In light of the foregoing, the proposed project will have a positive effect on the State and local economy and is not expected to have an adverse impact on market conditions in the State of Hawaii and the County of Maui.

ENVIRONMENTAL IMPACTS

1. **Air Quality - Existing Conditions.** Maui lies well within the belt of northeasterly trade winds generated by the semi-permanent Pacific high pressure cell to the north and east. Because the project area is located in the valley between Haleakala and the West Maui Mountains and the valley is unobstructed to the north, it receives relatively good ventilation much of the time from the northeast trade winds which tend to be channeled through the valley by the terrain. Local winds such as land/sea breezes and/or upslope/down slope winds also influence the wind pattern for the area when the trade winds are weak or absent. At night, winds are often drainage winds that move down slope and out to sea. During winter, occasional strong winds from the south or southwest occur in association with the passage of winter storm systems. The monthly mean wind speed and prevailing wind direction statistics for Kahului Airport indicate that ventilation is good throughout the year with monthly mean speeds ranging from about 11 to 15 miles per hour. Wind data from Kahului are at least semi-representative of winds at the project site. Wind speeds in summer tend to be strongest. The monthly prevailing

wind direction year round is from the northeast.

Air quality refers to the presence or absence of pollutants in the atmosphere. It is the combined result of natural conditions (e.g. dust from wind erosion) and emissions from a variety of pollution sources (e.g. automobiles, power-generating plants).

The air quality in the Central Maui region is relatively good. Non-point source vehicle emissions do not generate a significant or high concentration of pollutants, as prevailing winds help to disperse emissions quickly. The Central Maui region is currently in attainment of all Federal and State air quality standards.

An Air Quality Study (AQS) for the proposed project was prepared by B.D. Neal & Associates in November 2011. The AQS examined potential short- and long-term air quality impacts that could occur as a result of construction activities and the proposed heavy industrial use of the site. Measures to minimize potential air quality impacts were proffered where possible and appropriate.

Air quality in the immediate project area is primarily affected by pollutants from vehicular, industrial, natural, and/or agricultural sources. Most of the man-made particulate and sulfur oxides emissions on Maui originate from point sources, such as power plants and other fuel-burning industries. Nitrogen oxides emissions are roughly equally divided between point sources and area sources (mostly motor vehicle traffic). The majority of carbon monoxide emissions occur from area sources (motor vehicle traffic, sugar cane burning), while hydrocarbons are emitted mainly from point sources.

The major source of air pollution in the project area is associated with agricultural operations. There are also a small number of industrial sources within a few miles of the site, and air pollution emissions occur from automobile traffic using Mokulele Highway to the west of the project site. Emissions from these sources consist primarily of particulate, carbon monoxide and nitrogen oxides. Volcanic emissions from distant natural sources on the Big Island also affect the air quality at times during *kona* wind conditions. By the time the volcanic emissions reach the project area, they consist mostly of fine particulate sulfate.

Two size fractions of particulate matter (PM) were measured at the Department of Health's (DOH) monitoring station in Kihei. Particulate matter less than 10 microns diameter (PM-10) and particulate matter less than 2.5 microns diameter (PM-2.5). Annual second-highest 24-hour PM-10 concentrations (which are most relevant to the air quality standards) ranged from 60 to 119 micrograms per cubic meter (g/m^3) between 2005 and 2008. Average annual concentrations ranged from 20 to 26 g/m^3 .

The annual 24-hour 98th percentile PM-2.5 particulate concentrations (which are most relevant to the air quality standards) ranged from 8 to 16 g/m^3 between 2005 and 2009. Average annual concentrations ranged from 4 to 6 g/m^3 .

Given the limited air pollution sources in the area, it is likely that air pollution concentrations are near natural background levels most of the time, except possibly for locations adjacent to agricultural operations or near traffic-congested intersections.

Potential Impacts and Mitigation Measures. The existing air quality in the project area is predominantly good. Brush fires and agricultural tilling operations have occasionally resulted in the recording of relatively high particulate concentrations at the DOH air quality monitoring station in Kihei.

In the short term, air quality will be temporarily affected by fugitive dust from construction activities. If uncontrolled, estimated fugitive dust emissions could amount to 1.2 tons per acre per month depending on rainfall.

In accordance with Chapter 11-60.1, HAR entitled Pollution Control and Section 11-60.1-33, HAR pertaining to Fugitive Dust, appropriate dust control measures will be implemented during construction to minimize the effects of fugitive dust. Examples of such measures include but are not limited to the following:

1. To control dust, active work areas and any temporary unpaved work roads will be watered at least twice daily on days without rainfall.
2. The use of wind screens and/or limiting the area that is disturbed at any given time will help contain fugitive dust emissions.
3. Mulching or chemical soil stabilizers will be used on disturbed, inactive areas of the site to help control wind-generated erosion.
4. Dirt-hauling trucks will be covered when traveling on roadways to prevent windborne particulates.
5. A routine road cleaning and/or tire washing program will help reduce fugitive dust emissions from trucks tracking dirt onto paved roadways in the project area.
6. Establishing landscape plantings early on during the construction phase will help dust control.
7. Monitoring dust at the project boundary during construction will be considered as a means to evaluate the effectiveness of the project's dust control program. Adjustments will then be made if necessary.
8. During construction, onsite construction equipment, vehicles used by construction workers, and trucks traveling to and from the project will be the primary source of vehicle emissions (carbon monoxide, nitrogen oxides). Increased emissions resulting from traffic disruptions attributable to construction equipment and/or commuting construction workers can be alleviated by moving equipment and personnel onto the site during off-peak traffic hours.

To the extent possible, non-drinking water will be used for dust control during construction activities.

From a long-term perspective, project-related motor vehicle emissions should have a negligible effect on air quality in the project area and worst-case concentrations of carbon monoxide should remain within State and Federal ambient air quality standards. As noted in the AQS, implementing any mitigation measures for long-term, traffic-related air quality impacts is probably unnecessary and unwarranted.

As previously noted, the project area is located in the valley formed by Haleakala and the West Maui Mountains. Since the valley is unobstructed to the north, it receives relatively

good ventilation much of the time from the northeast trade winds which tend to be channeled through the valley by the terrain. Adverse air quality impacts to existing land uses in the area (Maui Humane Society, Maui Raceway Park, Hawaii National Guard Armory) are not anticipated as these facilities do not lie directly downwind of the project site and the prevailing trade winds would help to quickly disperse any airborne particulates. The development of the proposed project will comply with all applicable regulations for the control of air pollution, including Chapter 11-60, HAR (*Air Pollution Control*).

Since heavy industrial uses will be determined by future lot owners, specific activities that would occur within the subdivision are presently unknown. Nonetheless, because heavy industrial uses have the potential to affect the environment, the Covenants, Conditions, and Restrictions (CC&Rs) for the proposed subdivision will require that all lot owners prepare and implement Best Management Practices (BMPs) and emergency response plans that are specific to the heavy industrial use on their lots. The CC&Rs will also stipulate that lot owners must comply with all applicable Federal, State, and County laws including Chapter 11-60, HAR. An association of subdivision lot owners shall be formed and will be responsible for reviewing the development plans of each lot owner and for ensuring compliance with the CC&Rs.

In Hawaii, a use or activity including a potential pollution source is subject to the regulatory review and approval process in which detailed information about the use or activity is evaluated, potential impacts are identified, and appropriate mitigation measures are prescribed. If a regulatory permit or approval is granted, specific terms of compliance are set forth depending on the nature of the potential impacts.

In light of the foregoing, the proposed project is not expected to result in any adverse air quality impacts.

2. **Noise – Existing Conditions.** The level of ambient noise is an important indicator of environmental quality. In an urban setting, industrial and construction activities, as well as aircraft and automotive traffic can result in adverse noise impacts. In a rural environment, traffic noise, surrounding land uses, and construction activities can impact noise levels based on their proximity to noise-sensitive development. Chronically high noise levels can impact personal health and the ambience and aesthetic appeal of an area.

Noise in the project area is attributable to aircraft traversing the area, vehicles along Mokulele Highway, truck traffic between the highway and the Hawaiian Cement Quarry, and sugar cane planting and harvesting operations in the vicinity.

An Acoustic Study for the proposed project was prepared by Y. Ebisu & Associates in November 2011. The primary purpose of the study was to ascertain and assess present and future traffic noise conditions in the project area. Potential noise impacts from onsite activities and short-term construction noise were also examined and recommendations for minimizing noise impacts were provided.

The subject parcel is located in an area characterized by sugar cane cultivation, as well as industrial, recreational, and public/quasi-public uses. Industrial uses in the area include the Hawaiian Cement Quarry, 0.2 mile to east, and the Central Maui Baseyard, 1.3 miles to the north. Recreational uses include the Maui Raceway Park, 0.4 mile to the west, while public/quasi-public uses include the Hawaii National Guard Armory, 0.7 mile to the west, and the Maui Humane Society, 1.1 miles to the northwest.

There is no residential development in the immediate vicinity of the proposed project. The closest residential areas are in Kihei, 2.3 miles to the south; Maalaea, 3.6 miles to the southwest; Kahului, 4.0 miles to the north; and Pukalani, 6.4 miles to the east.

Federal noise standards were used to calculate traffic noise levels along the roads serving the subject parcel. The noise descriptor used to assess environmental noise is the Day-Night Average Sound Level (DNL).

In the project area, traffic noise levels along Mokulele Highway are expected to increase by approximately 1.3 to 1.4 DNL by 2015 as a result of project and non-project traffic. Project traffic will result in an increase of 0.3 to 0.4 DNL, while non-project traffic is expected to contribute 1.0 DNL.

During the same timeframe, traffic noise levels along the roads serving the subject property (Kama`aina Road, South Firebreak Road) are expected to increase to 6.4 DNL due to project-generated traffic.

Potential Impacts and Mitigation Measures. While no significant increase in traffic noise levels along Mokulele Highway is expected as a result of project and non-project traffic by 2015, an increase of 6.4 DNL in project-generated traffic is expected to occur along the roads serving the subject parcel. However, due to the absence of noise-sensitive development along these roads, the 6.4 DNL increase is not expected to result in any adverse noise impacts.

As previously noted, the nearest residential noise receptors are in Kihei (2.3 miles), Maalaea (3.6 miles), Kahului (4.0 miles), and Pukalani (6.4 miles). In order to predict worst case subdivision noise emissions at the closest residential receptors, it was assumed that each lot within the subdivision would continuously emit 70 dBA. The results of the noise modeling indicated that worst case noise levels could fall between 3 and 29 dBA which is well below the 45 dBA at the closest residential receptors. Based on these noise modeling efforts, adverse noise impacts from onsite noise sources are not anticipated.

Predicted worst-case emissions from operating equipment within the proposed subdivision are not expected to exceed noise impact thresholds at the nearest noise-sensitive areas. During construction, no adverse noise impacts are anticipated due to the absence of noise-sensitive development in the neighborhood, as well as the physical separation and distance between the subject parcel and

Because construction activities may be audible within the project site and nearby properties, the quality of the acoustic environment may be temporarily affected if sound level thresholds are exceeded during construction. Construction vehicles, machinery, and equipment, such as tractor-trailers, front-end loaders, excavators, bulldozers, dump trucks, graders, generators, jackhammers, and power tools are the dominant noise sources during the construction phase.

Measures to reduce construction noise to inaudible levels will not be practical in all cases. However, proper equipment maintenance, the use of sound-dampening equipment, and limiting construction activities to daylight working hours will help minimize noise impacts.

Under existing State noise regulations, the maximum sound level for agricultural and industrial-zoned land is 70 dBA. The abbreviation dBA represents a sound pressure level with an A-weighting filter. In measuring sound, an A-weighting filter is commonly used to emphasize frequencies where the human ear is most sensitive. The A-weighting curve has been widely adopted for environmental noise measurement and is standard in many sound level meters.

The development of the proposed project will comply with all applicable regulations pertaining to noise including Chapter 11-46, HAR (*Community Noise Control*).

Should noise from construction activities or industrial activities exceed the 70 dBA threshold set by the State Department of Health (DOH), a Community Noise Permit will be obtained from the Department's Indoor & Radiological Health Branch in accordance with Chapter 11-46, HAR.

Because future lot owners will determine the heavy industrial use on their lots, specific activities that would occur within the subdivision are presently unknown. Notwithstanding this, since heavy industrial uses have the potential to affect the environment, the Covenants, Conditions, and Restrictions (CC&Rs) for the proposed subdivision will require that all lot owners prepare and implement Best Management Practices (BMPs) and emergency response plans that are specific to the heavy industrial use on their lots. The CC&Rs will also stipulate that lot owners must comply with all applicable Federal, State, and County laws including Chapter 11-46, HAR. An association of subdivision lot owners shall be formed and will be responsible for reviewing the development plans of each lot owner and for ensuring compliance with the CC&Rs.

In the State of Hawaii, a use or activity including a potential pollution source is subject to the regulatory review and approval process in which detailed information about the use or activity is evaluated, potential impacts are identified, and appropriate mitigation measures are prescribed. If a regulatory permit is granted, specific terms of compliance are set forth to ensure that the permitted use will not adversely affect the environment. Failure to comply with the terms of the permit could result in enforcement action including penalties or revocation of the permit. In light of the foregoing, the proposed project is not expected to result in any adverse noise impacts.

3. **Scenic and visual resources – Existing Conditions.** The subject parcel slopes in an east to west direction with elevations on the site ranging from 140 feet above mean sea level (amsl) to 120 feet amsl with an average slope of 1.8 percent. Sugar cane fields border the site on its east and south, while the undeveloped lands of Project District 10 and the Pu'unene Airport Master Plan area lie to the west. To the north of the property are Lower Kihei Road, an HC&S irrigation reservoir, and sugar cane fields.

As viewed from the subject parcel, Haleakala lies to the east of the site, while the West Maui Mountains can be seen to the west. The Pacific Ocean and the island of Kahoolawe are visible to the southwest.

The subject property does not contain any natural or man-made scenic features. The site is not located within any important *mauka* or *makai* view corridors along Mokulele Highway. Due to its distance from the highway the project site cannot be seen from surrounding areas.

Potential Impacts and Mitigation Measures. While the visual character of the project area will be modified by the proposed project, it will not have an adverse effect upon scenic resources or view corridors due to its distance from Mokulele Highway and other public roadways in the area.

The maximum building height under *M-3, Restricted Industrial* zoning is 90 feet. Landscaping around the perimeter of the proposed subdivision will help integrate the project with its surroundings. All lot owners and all buildings and accessory structures that are built within the subdivision will be required to comply with the Covenants, Conditions, and

Restrictions and the Design Guidelines for the subdivision, a coordinated set of documents that will enforce the design, development, and land use standards for the Pu`unene Heavy Industrial Subdivision.

Due to its distance from Mokulele Highway and residential areas in Kahului, Kihei, and Upcountry, the proposed project will not have an adverse visual impact.

While the proposed drainage swale along the west side of the subject parcel constitutes an area of open space, there are no parks, utility easements, shoreline areas, and wetlands on the property which would contribute to the establishment of an open space framework for the area.

4. **Flora and Fauna – Flora - Existing Conditions.** LeGrande Biological Surveys, Inc. carried out a botanical field survey of the project area in August 2011. The primary objectives of the field survey were to:

1. Inventory the flora;
2. Provide a general description of the vegetation on the project site;
3. Search for threatened and endangered species as well as species of concern; and
4. Provide recommendations regarding potential impacts to the biological resources of the area in regard to the proposed development of the survey area.

In addition to the subject parcel, two proposed access easements were surveyed during field work. The findings of the field survey were presented in a Botanical Resource Assessment.

The subject parcel is characterized by Dry Kiawe/Buffelgrass vegetation. A total of 50 plant species were observed within the survey area of which 44 species, or 88 percent, are alien (introduced) and 6 species, or 12 percent, are indigenous (native to the Hawaiian Islands and elsewhere).

The following summary describes the plants that were observed in these areas.

Subject Parcel. The dominant onsite vegetation is a kiawe (*Prosopis pallida*)/buffelgrass (*Cenchrus ciliaris*) grassland with a koa haole (*Leucaena leucocephala*) scrub transition between the southern boundary of the property. The northern section appears to have been recently graded with large boulder piles near the gate entrance. Several other weedy native species were scattered throughout the property including: Jimson weed (*Datura stramonium*), cheese weed (*Malva parviflora*), Lion's ear (*Leonotis nepetifolia*), hairy spurge (*Chamaesyce hirta*), *Amaranthus* sp., and golden crownbeard (*Verbesina encelioides*). The few native species that were observed within the survey area include three indigenous species: ilima (*Sida fallax*), popolo (*Solanum americanum*), and uhaloa (*Waltheria indica*).

State Easements. This area encompasses proposed access easements along Kama`aina Road (State owned), and South Firebreak Road (State & privately owned). Dominant roadside weeds are buffel grass and koa haole shrubs. Others species scattered along the roadside and reservoir embankment include partridge pea (*Chamaecrista nictitans* subsp. *patellaria* var. *glabrata*), swollen finger grass (*Chloris barbata*), castor bean (*Ricinus*

communis), manienie (*Cynodon dactylon*), kaliko (*Euphorbia heterophylla*), graceful spurge (*Chamaesyce hypericifolia*), obscure morning glory (*Ipomoea obscura*), and smooth rattlepod (*Crotalaria pallida*).

Reservoir Easement. This area encompasses a formerly proposed alternate access easement along the north and east sides of the irrigation reservoir. Monkeypod (*Samanea saman*) and Siris (*Albizia lebbek*) are the dominant tree species around the east boundary of the easement mixed with a Koa haole scrub. At the north end of the reservoir a portion of the easement crosses over a drainage canal. Large Java plum (*Syzygium cumini*) trees dominate the area around the canal. During the survey, `auku`u (Black-crowned night heron) were observed in the Java plum trees. Several other plant species were noted in the area including two indigenous species: milo (*Thespesia populnea*) and hala (*Pandanus tectorius*), as well as Guinea grass (*Panicum maximum*), and banana (*Musa* sp).

As the easement heads north from the subject parcel it crosses a road leading to the Hawaiian Cement Plant and then heads west into sugar cane fields. A drainage ditch near the area where the easement turns west (past the reservoir) contains some plant species that are usually found near standing or running water. They included one native species `ae`ae (*Bacopa monnieri*) and several non-native species such as water morning glory (*Ipomoea aquatic*), kalo (*Colocasia esculenta*), false daisy (*Eclipta prostrata*), and vasey grass (*Paspalum urvillei*).

Potential Impacts and Mitigation Measures. Federal and State listed species status follows the *Federal Register* (2002) and the U.S. Fish and Wildlife Service's (USFWS), *Listed and Candidate Species* (2008). None of the plants observed during the field survey is a threatened or endangered species or a species of concern. The survey area has been impacted over time by agricultural and vehicular use and its biological resources have been altered from its native state. The three essential criteria for defining a Federally recognized wetland are: hydrophytic vegetation, hydric soils, and wetland hydrology. No wetlands were encountered during the botanical field survey and none of the criteria for defining a wetland were present within the project site.

During the consultation process for the preparation of the EA, the USFWS commented that host plants for the endangered Blackburn's Sphinx Moth (BSM) may breed and feed within the project area. Their recommendation to carry out the plant survey during or after the rainy season was noted. Host plants such as the introduced tree tobacco were observed very infrequently during the survey. Only a few small plants were seen over the entire subject property. Surrounding areas in Kihei and along the highway in Pu`unene had an abundance of tree tobacco during the same dates as the survey was carried out. The area encompassed by our survey does not appear to be an optimum area for BSM host plants.

A survey of arthropods in the project area was conducted by Robert W. Hobdy on July 16, 2012. The report documenting the findings of the survey indicates that no rare or endangered insects were observed including the endangered Blackburn's sphinx moth (*Manduca blackburni*). In addition, none of the moth's preferred host plants, the tree tobacco (*Nicotiana glauca*) were found, and no adult moths, eggs or larvae were seen. A letter dated June 3, 2013, from the USFWS, which was subsequent to the Hobdy survey in 2012, indicates that a survey should be conducted during the wettest portion of the year from November to April regarding the Blackburn's sphinx moth.

The proposed alternate access easement on the north and east sides of the irrigation reservoir borders the reservoir for much of its length. If this alternate alignment is selected, a buffer between the reservoir and roadway easement during construction would protect the emergent native vegetation and any native waterfowl present at the reservoir.

The proposed project is not expected to have a significant negative impact upon the botanical resources of the site or the general region.

Fauna - Existing Conditions. Phillip Bruner conducted a faunal field survey of the project area in July 2011. The goals of the field survey were to:

1. Document the species of birds and mammals observed on or near the property.
2. Devote special attention to documenting the presence and/or possible use this area by native and migratory species particularly those that are listed as threatened or endangered.

The findings of the field survey were set forth in an Avifaunal and Feral Mammal Survey.

Native (Indigenous) Land Birds. No native land birds were observed during the field survey.

The only species that might occur in this area on rare occasions is the *Pueo* or Hawaiian Short-eared Owl (*Asio flammeus sandwichensis*). The State of Hawaii lists the *Pueo* as endangered on Oahu but not on Maui. The *Pueo* nests on the ground in high, dense grass and forages over an array of habitats including forest, grasslands, and agricultural fields.

Native (Indigenous) Water Birds. During the field survey, an average of 16 *Auku`u* or Black-crowned Night Heron were observed around the HC&S irrigation reservoir although none were seen on the subject parcel. The *Auku`u*, which is neither threatened nor endangered, forages on a wide variety of prey and frequents wetland habitats.

Migratory Shore Birds. Migratory shore birds winter in Hawaii between August and April and spend the rest of the year at their breeding grounds in the arctic and subarctic. The only species that could potentially occur in the area would be the *Kolea* or Pacific Golden Plover (*Pluvialis fulva*), which is neither threatened nor endangered. *Kolea* forage for insects on lawns and other habitats in Hawaii and can be seen on cane haul roads and agricultural fields. A few *Kolea* are likely to occur in the area during August to April. No other migratory shore birds are likely to occur in the area.

Alien (Introduced) Birds. The survey area contains the usual array of alien species seen on similar property in Central Maui. These species, which are neither threatened or endangered, include the following: Cattle Egret (*Bubulcus ibis*), Gray Francolin (*Francolinus pondicerianus*), Black Francolin (*Francolinus francolinus*), Ring-necked Pheasant (*Phasianus colchicus*), Spotted Dove (*Streptopelis chinensis*), Zebra Dove (*Geopilia striata*), Barn Owl (*Tyto alba*), Japanese White-eye (*Zosterops japonicus*), Common Myna (*Acridotheres tristis*), Northern Cardinal (*Cardinalis cardinalis*), House Finch (*Carpodacus mexicanus*), and Nutmeg Mannikin (*Lonchura punctulata*).

Mammals. The only feral mammal observed during the field survey was the Small Indian Mongoose (*Herpestes javanicus*). Rats (*Rattus spp.*) and Mice (*Mus musculus*) are likely to occur on the site along with feral cats (*Felis catus*). Using an ultrasound detection device, an evening search of the property did not detect the presence of the endangered Hawaiian

Hoary Bat, which roosts solitarily in trees. The bats forage for flying insects in a wide range of habitats including forests, agricultural lands, and urban areas, as well as over bays and ponds.

Arthropods: In response to comments from the State Land Use Commission, Robert W. Hobdy conducted a survey to inventory all arthropod species in the project area. A total of 15 arthropods were recorded, representing seven Orders of spiders and insects. No rare or endangered insects were observed including the endangered Blackburn's sphinx moth (*Manduca blackburni*). None of the moth's preferred host plants, the tree tobacco (*Nicotiana glauca*) were found, and no adult moths, eggs or larvae were seen.

Potential Impacts and Mitigation Measures. The typical assemblage of non-native birds and mammals were observed during the field survey. No threatened or endangered avian species were observed or expected given the existing resources on the site.

At least two endangered water birds (*Koala*, *Alaekē`oke`o*) utilize the nearby HC&S irrigation reservoir. These water birds did not respond to any traffic noise from South Firebreak Road and Lower Kihei Road which borders the reservoir to the west and south. An embankment and the vegetation around reservoir visually shields and buffers the birds from human disturbance. It should also be noted that water birds might fly over the subject parcel or utilize the proposed drainage basins along the west side of the site as they travel between various water bodies within the region including the adjacent irrigation reservoir and the Kealia Pond National Wildlife Refuge.

The *Kolea* or Pacific Golden Plover, which is neither threatened nor endangered, is the only potential migratory shorebird that might forage along roads and clearings in the Pu`unene area.

There are no known published sightings of the Hawaiian Hoary Bat in the project area. However, since the bat forages over a wide variety of habitats, it is possible that a sighting in the area could occur on rare occasion. The Faunal Survey notes that F. J. Bonaccorso, who has conducted extensive research on the bat, has recommended that trees in a project area not be cut or disturbed between the months of April and August if there is any evidence that bats occur in the area. During this period, the young flightless bats are left in the tree while their mother forages for food.

In accordance with recommendations provided by the U.S. Fish & Wildlife Service in their review of the Draft EA, the cutting or trimming of trees and woody shrubs over 15 feet in height shall be avoided from June 1 through September 15 to mitigate potential impacts to the Hawaiian Hoary Bat.

As a follow-up to the land owner's response to their consultation comments, the USFWS provided supplemental comments via telephone (personal communication with Ian Bordenave, September 27, 2011). Mr. Bordenave indicated that the endangered *Nene* or Hawaiian goose has been observed in the area around Mokulele Highway and that the *Nene* is drawn to grass seedlings in hydro-mulched areas that are being developed. He recommended holding a pre-construction meeting to inform workers about how to detect the presence of *Nene* and how to avoid them and/or their nesting sites. He also indicated that John Medeiros from the Forestry Division of the State Department of Land and Natural Resources can be called upon for assistance and that the USFWS will identify the exact number of days for a survey to determine if the *Nene* is using the project site for foraging, loafing, or nesting.

In following up on comments from the State Office of Planning, Robert W. Hobdy conducted

a survey of the project area on July 16, 2012 to assess its potential for providing habitat for *Nene* even if only incidental or temporary in nature. The report documenting the findings of the survey notes that the subject parcel is not irrigated and is located in one of the driest regions on Maui. This area experiences long, hot and dry summers during which the grasses and herbaceous plants become seared and withered. Even in a substantial wet season, the vegetation is tough and the greenery is fleeting. The report finds that nothing in this environment would equate to preferred habitat for *Nene* or attract them to feed or breed here. The fact that no *Nene* was observed during the survey was an expected outcome, consistent with the existing environmental resources. The letter to the State Office of Planning dated June 3, 2013, from the USFWS, notes precautionary activities that should be followed if a *Nene* or the bird's nest is observed on-site.

Exterior lighting will be appropriately shielded or directed downward to minimize impacts to any migratory seabirds which may become disoriented when traversing the project area.

In light of the foregoing, the proposed project is not expected to have an adverse effect upon fauna in the project area.

5. **Sustainability** - Act 181, Session Laws of Hawaii, 2011, established priority guidelines for sustainability in the Hawaii State Plan. Furthermore, the State of Hawaii's Clean Energy Initiative has adopted a goal of using efficient and renewable energy resources to meet 70% of Hawaii's energy demand by 2030, with 30% from efficiency measures and 40% from locally-generated renewable sources.

The Petitioner's sustainability initiatives apply sustainable elements in the project design, including the encouragement of renewable energy uses.

CONCLUSIONS REGARDING COMPLIANCE WITH STATE URBAN DISTRICT STANDARDS

The Planning Department finds that the petition is in compliance with the standards of the State Urban District. Title 15, Chapter 15, HAR (*Land Use Commission Rules*) governs the practice and procedure of the State Land Use Commission. Subchapter 2 of 15-15, HAR sets forth various criteria for the establishment of each of the State's four land use districts. The request for reclassification is in conformance with the following standards for determining *State Urban District* boundaries as set forth in Section 15-15-18, HAR:

- (1) It shall include lands characterized by "city-like" concentrations of people, structures, streets, urban level of services and other related land uses;

Comment: Although the subject property is not characterized by "city-like" concentrations or conditions, it is located in an area that is designated for future urban development. The Central Maui Baseyard, an existing industrial development on 52 acres of land in the *State Urban District*, is located 1.3 miles to the north of the subject property. During World War II, the subject parcel and surrounding lands were developed for use as the Pu`unene Naval Air Station. Lands planned for future development include the Pu`unene Airport Master Plan (PAMP) area which encompasses 222 acres of land west of and adjacent to the subject parcel and is a component of Project District 10 (PD 10) – Old Pu`unene Airport area – which encompasses 561 acres and is designated as "a master-planned recreational and expansion area to meet future recreational needs and to provide areas for industrial activities, including government facilities, whose locations are better suited away from urban areas". The State Department of Hawaiian Home Lands (DHHL) owns approximately 184

acres of land to the west of PD 10 (across Mokulele Highway) which it plans to lease for future commercial development. The DHHL also owns a 646-acre parcel to the south of the subject parcel – TMK (2) 3-8-008: 034 – which is zoned for agricultural homestead lots by the DHHL. Parcel 34 and other State-owned parcels in the PAMP area are the subject of a cooperative master planning effort by various State agencies to address future land use and infrastructure development for the State-owned lands in the vicinity of the Old Pu`unene Airport.

(2) It shall take into consideration the following specific factors:

(A) Proximity to centers of trading and employment except where the development would generate new centers of trading and employment;

Comment: The subject property is located about 1.0 mile southeast of the intersection of Kama`aina Road, Mehameha Loop, and Mokulele Highway, a divided, four-lane facility linking South and Central Maui. From this intersection, Kahului lies approximately 3.25 miles to the north, while North Kihei is about 3.75 miles to the south. The subject parcel is ideally situated for heavy industrial activities given its separation and distance from residential and commercial development, its convenient and centralized location for customers and suppliers, and its proximity to transportation facilities at Kahului Harbor and the Kahului Airport.

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

Comment: The subject parcel is undeveloped and is not currently served by basic public services. Infrastructure systems for the proposed subdivision will include private drainage, water, and wastewater systems. The external roadways providing access to the subdivision and the internal roads within the subdivision shall utilize flexible design standards as provided by Section 18.32.030 of the Maui County Code. In addition to the subdivision's internal roads, its drainage, water, and wastewater systems will be privately owned and maintained by an association of subdivision lot owners. The proposed project will not have an adverse effect on public services such as health care and police and fire protection, nor will it impact public facilities such as schools and parks project since it will not place any new or additional demands for parks, schools, and health care services nor will it extend the service area limits for police and fire protection. After completion, refuse collection and disposal for the subdivision will be handled by a private waste disposal service under contract to the Lot Owner's Association. In light of the foregoing, no impacts to existing public services and infrastructure systems are anticipated.

(C) Sufficient reserve areas for foreseeable urban growth;

Comment: The subject property and the lands in the vicinity of the project site are either planned or designated for future urban development. The subject parcel, the Pu`unene Airport Master Plan (PAMP) area, and Project District 10 (PD 10) all fall within the Urban Growth Boundaries (UGB) for the Maui Island Plan and are designated for urban expansion for by the Plan. The reclassification of the subject parcel would allow 86 acres of poor, unproductive agricultural land to be used for a higher and better use as provided for by the Plan.

- (3) It shall include lands with satisfactory topography, drainage, and reasonably free from the danger of any flood, tsunami, unstable soil condition, and other adverse environmental effects;

Comment: The subject parcel has an average slope of 1.8 percent. The property is located in Zone "X", an area of minimal flooding and does not lie in an area which is subject to tsunami evacuation as indicated by the tsunami evacuation maps prepared by the Maui County Civil Defense Agency. Based on a re-evaluation of seismic hazards by the United States Geological Service in 1992, the seismic hazard for Maui County falls within Zone 2B, indicating that in any given year within a 50-year period (average building life span), there is a 10 percent chance that 1/5 the force of gravity (ground acceleration) during an earthquake will be exceeded. In addition, there are no known unstable soil conditions nor are there any other adverse physical or environmental conditions that would render it unsuitable or inappropriate for the proposed action.

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

Comment: As previously indicated, the subject property and the lands in the vicinity of the project site are either planned or designated for future urban development. The subject parcel, the PAMP area, and PD 10 all fall within the UGB for the Maui Island Plan and are designated for urban expansion for by the Plan. In addition, the DHHL owns approximately 184 acres of land bordered by Mehamaha Loop which is designated for future commercial development. The nearby Hawaiian Cement Quarry and Hawaii Army National Guard Armory are both operating under a Land Use Commission Special Use Permit (the Quarry also has a County Conditional Permit). The Central Maui Baseyard lies in the *State Urban District* and is located 1.3 miles to the north of the subject parcel. In addition to the foregoing, the subject parcel is ideally situated for heavy industrial activities given its separation and distance from residential and commercial development, its convenient and centralized location for customers and suppliers, and its proximity to transportation facilities at Kahului Harbor and the Kahului Airport.

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

Comment: As previously noted, the subject property and the lands in the vicinity of the project site are either planned or designated for future urban development. The subject parcel, the PAMP area, and PD 10 all fall within the UGB for the Maui Island Plan and are designated for urban expansion for by the Plan. The subject property also lies in proximity to the 184 acres of DHHL land bordered by Mehamaha Loop which is designated for future commercial development.

- (6) It may include lands which do not conform to the standards in paragraphs (1) to (5):

- (A) When surrounded by or adjacent to existing urban development; and
- (B) Only when those lands represent a minor portion of this district;

Comment: Although the subject property and lands in the surrounding vicinity are in the *State Agricultural District*, the subject parcel, the PAMP area, and PD 10 all lie within the

UGB for the Maui Island Plan and are designated for urban expansion by the Plan. As such, these lands lie within an appropriate area for future urban expansion and development. The granting of the proposed request would provide the land owner with the appropriate land use entitlements for the long-term, heavy industrial use of the subject property.

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

Comment: The reclassification of the subject property will not contribute to scattered spot urban development. The subject parcel, the PAMP area, and PD 10 all fall within the UGB for the Maui Island Plan and are designated for urban expansion for by the Plan. In addition, the subject parcel lies in the vicinity of existing industrial uses such as the Hawaiian Cement Quarry and the Central Maui Baseyard and in proximity to the 184 acres of DHHL land which is designated for future commercial development. The proposed project will not necessitate unreasonable public investment for infrastructure or public services.

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

Comment: The subject property has an average slope of 1.8 percent and does not possess any slopes of 20 percent or more.

DECISION-MAKING CRITERIA

Chapter 205-17, HRS (Land Use Commission Decision-making Criteria) sets forth criteria that the Land Use Commission must specifically consider in its review of a Petition for district boundary reclassification. The decision-making criteria include the following:

- (1) The extent to which the proposed reclassification conforms to the applicable goals, objectives, and policies of the Hawaii State Plan and relates to the applicable priority guidelines of the Hawaii State Plan and the adopted functional plans;

Comment: The proposed action conforms to the applicable goals, objectives, and policies of the Hawaii State Plan and relates to the applicable priority guidelines of the Hawaii State Plan and the adopted functional plans.

- (2) The extent to which the proposed reclassification conforms to the applicable district standards;

Comment: The proposed action conforms to State "Urban" District standards as identified in Chapter 205-2, HRS (*Districting and Classification of Lands*) and is in keeping with the Maui County General Plan.

- (3) The impact of the proposed reclassification on the following areas of State concern:

- (A) Preservation and maintenance of important natural systems or habitats;

Comment: There are no identified important natural systems or critical wildlife habitats within the subject parcel.

(B) Maintenance of valued cultural, historical, or natural resources;

Comment: An Archaeological Inventory Survey (AIS), Archaeological Monitoring Plan (AMP), and Cultural Impact Assessment were prepared for the proposed project to identify any significant archaeological and cultural resources, provide mitigation recommendations if necessary, and establish monitoring protocols for ground-altering construction activities. Archaeological monitoring will be conducted during all ground-altering construction activities in accordance with the approved AMP. If any archaeological features, cultural artifacts, or human burials are located during construction, the SHPD and the Maui/Lanai Islands Burial Council will be notified and immediately consulted to assess the significance of the find and establish appropriate mitigation measures as necessary. The State Historic Preservation Division (SHPD) approved the AIS and the AMP for the proposed project on June 18, 2012 and August 24, 2012, respectively.

(C) Maintenance of other natural resources relevant to Hawaii's economy, including agricultural resources;

Comment: The soils underlying the project site have very severe limitations due to their undesirable texture or because they are extremely rocky or stony. In addition to an overall productivity rating of "E" (the lowest rating), the land underlying the site is Unclassified (i.e., residual land) by the map identifying the Agricultural Lands of Importance to the State of Hawaii. The unsuitable soil conditions and poor productivity ratings of the subject property preclude any feasible agricultural development on the site. As such, the long-term agricultural/economic impact resulting from the development of the proposed project is expected to be very minimal. It should also be noted that the 86 acres encompassed by the subject parcel represents only 0.0002 percent of *State Agricultural District* lands on the island of Maui, and just 0.0004 percent of farm land in Maui County. In light of the foregoing, the proposed project will not have an adverse impact on agriculture nor will it have a negative effect on the inventory of agricultural lands that are available for large-scale or diversified agricultural activities.

(D) Commitment of State funds and resources;

Comment: The reclassification of the subject parcel is not expected to result in a significant commitment of State funds and resources. Infrastructure systems for the proposed subdivision will include private drainage, water, and wastewater systems. The external roadways providing access to the subdivision and the internal roads within the subdivision shall utilize flexible design standards as provided by Section 18.32.030 of the Maui County Code. In addition to the subdivision's internal roads, its drainage, water, and wastewater systems will be privately owned and maintained by an association of subdivision lot owners. The proposed project will not have an adverse effect on public services such as health care and police and fire protection, nor will impact public facilities such as schools and parks project since it will not place any new or additional demands for parks, schools, and health care services nor will it extend the service area limits for police and fire protection. After completion, refuse collection and disposal for the subdivision will be handled by a private waste disposal service under contract to the Lot Owner's Association.

(E) Provision for employment opportunities and economic development; and

Comment: The proposed project will provide construction-related employment during the development of the subdivision. Upon completion, lot owners will contribute to the support of the local economy through the payment of taxes and the purchase of goods and services.

(F) Provision for housing opportunities for all income groups, particularly the low, low-moderate, and gap groups;

Comment: Not Applicable.

(4) The standards and criteria for the reclassification or rezoning of important agricultural lands in Section 205-50; and

Comment: The proposed project does not involve the reclassification or rezoning of important agricultural lands. The land underlying the subject property is Unclassified (or residual) land by the map identifying the Agricultural Lands of Importance to the State of Hawaii. The soils of the subject parcel have an overall land productivity rating of "E" (the lowest rating) because of very severe limitations due to their undesirable texture or because they are extremely rocky or stony. The unsuitable soil conditions and poor productivity ratings of the subject property preclude any feasible agricultural development on the site. As such, any long-term agricultural impact resulting from the development of the proposed project is expected to be very minimal.

(5) The representations and commitments made by the Petitioner in securing a boundary change.

Comment: The proposed project will be implemented in accordance with the representations and commitments that have been made in obtaining the district boundary amendment.

POSITION OF THE DEPARTMENT OF PLANNING, COUNTY OF MAUI

The Planning Department supports approval of the Petition for a District Boundary Amendment from the State Agricultural District to the State Urban District for the Property, reserving the opportunity for additional comments and conditions during the District Boundary Petition hearings with the Commission. Suggested conditions include:

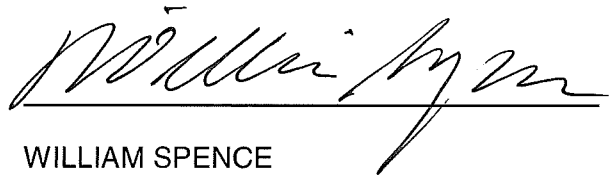
1. That the Petitioner shall provide the necessary water source, storage and transmission facilities and improvements to the satisfaction of the County of Maui's Department of Water Supply and/or State Department of Health and/or Commission on Water Resource Management as applicable to service the petition areas.
2. That the Petitioner shall implement water conservation and best management practices in the design and construction of the petition area.
3. That the Petitioner shall construct drainage improvements to accommodate the development of the petition area in accordance with the requirements of the County of Maui's Department of Public Works.

4. That the Petitioner shall fund, construct, and implement roadway improvements to accommodate the development of the petition area in accordance with the requirements of the County of Maui's Department of Public Works, as applicable.
5. That the Petitioner shall fund, construct, and implement all transportation improvements and measures required to mitigate impacts to state roadway facilities caused by the Project as agreed to by the DOT and the Petitioner. Petitioners shall submit to the DOT an updated TIAR, and Petitioner shall obtain acceptance of the Project's revised TIAR from the DOT prior to submitting a subdivision application to the County of Maui for the Petition Area in Docket A13-797. The development of the Project shall be consistent with the accepted and revised TIAR and the Petitioner shall complete all transportation improvements, as recommended in the accepted Revised TIAR, prior to receiving Final Subdivision Approval from the County of Maui.
6. That the Petitioner shall comply with the requirements of the County Department of Environmental Management and/or State Department of Health as applicable.
7. That the Petitioner shall complete construction of the proposed backbone infrastructure for the Project, which consists of primary roadways and access points, internal roadways, on- and offsite water and electrical system improvements, and stormwater/drainage and other utility system improvements within ten (10) years of the date of the Decision and Order approving the Petition.
8. In the event that historic resources, including skeletal remains, are identified during construction activities, all work shall cease in the immediate vicinity of the find, the find shall be protected from additional disturbance, and the Department of Land and Natural Resources, State Historic Preservation Division, Maui Island Section, shall be contacted immediately.
9. That the Petitioner shall develop mitigation measures to address any potential impacts on endangered species in the Petition area and shall as necessary consult with the DLNR, DOFAW, and USFWS to develop such mitigation measures. That the Petitioner shall ensure the downshielding of exterior lighting to minimize impacts to avifauna.
10. For all land in the Petition Area or any portion thereof that is adjacent to land the State Land Use Agricultural District, Petitioner shall comply with the following:
 - A. Petitioner and its successors and assigns shall not take any action that would interfere with or restrain farming operations conducted in a manner consistent with generally accepted agricultural and management principles on adjacent or contiguous lands in the State Agricultural District. For the purpose of these conditions, "farming operations" shall have the same meaning as provided in HRS section 165-2; and
 - B. Petitioner shall notify all prospective developers or purchasers of land or interest in land in the Petition Area, and provide or require subsequent notice to lessees or tenants of the land, that farming operations and practices on adjacent or contiguous land in the State Agricultural District are protected under HRS chapter 165, the Hawaii Right to Farm Act. The notice shall disclose to all prospective buyers, tenants, or lessees of the Petition Area that potential nuisances from noise, odors, dust, fumes, spray, smoke, or vibration may result from agricultural uses on adjacent

lands. The notice shall be included in any disclosure required for the sale or transfer of real property or any interest in real property.

11. Pursuant to Article XII, section 7, of the Hawaii State Constitution, Petitioner shall preserve any established access rights of Native Hawaiians who have customarily and traditionally used the Petition Area to exercise subsistence, cultural, and religious practices, or for access to other areas.

DATED: Wailuku, Hawaii, August 13, 2013.



WILLIAM SPENCE
Planning Director
Department of Planning

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