April 19, 2012

Mrs. Colleen Suyama Munekiyo & Hiraga 305 High Street Wailuku, HI. 96793

Dear Mrs. Suyama:

Subject: Comments re. Draft EIS for Olowalu Master Plan

I have reviewed the Draft EIS with Appendices and have the following comments and questions:

Page 12 – The EIS says that Olowalu once had a population of "several thousand". How was this number verified? People lived in Olowalu while there was a sugar cane mill there. Once that mill and the Lahaina mill were closed almost all residents moved out of Olowalu.

Pages 15 & 164 – The EIS says that a "portion of the pre-development stormwater will be captured". To protect future development, all stormwater should be captured.

Page 18 – The project is described as including public amenities such as community centers, educational facilities, police/fire, medical, library, museum, cultural centers and post office. Are the developers willing to donate land for any or all of these public facilities? Are they willing to build all or any of these facilities at their expense?

Page 23 – Where are 4 story buildings with 50 feet of height proposed? Are any hotels proposed for Olowalu Town?

Page 25 – Are there 3456 new housing units needed in West Maui in 2030? 1500 of those units or almost half of the units are proposed in Olowalu?

All 3456 of the new units can be provided in existing and proposed West Maui projects that are much more in conformance than Olowalu with State and County planning policies concerning development near jobs and infrastructure.

Page 28 – The EIS says that portions of the proposed development are subject to flooding. Why is any new development proposed in Olowalu be allowed where flooding is anticipated?

Page 28 – The EIS says that 1,000 long term jobs would be created in Olowalu. This number seems too high. How was this number arrived at? How many of the proposed 4,239 Olowalu residents are expected to commute to work out of Olowalu?

Page 48 – The EIS says that 81% of the Master Plan area is within the UH soil productivity designations A and B. How much of this very productive land is proposed in the Olowalu Master Plan to be in future agricultural use?

Page 58 – The EIS says that potential impacts from shoreline erosion and future sea level rise have not been identified. This is a very serious omission and the Final EIS should include analysis of both shoreline erosion and sea level rise.

Pages 61 & 132 – The EIS says that the Master Plan proposes areas and provides land where a new fire station and emergency services can be accommodated. Are the developers willing to donate land and build a new fire station at their expense?

Page 134 & 135 — The EIS says that all public schools in Lahaina are already over capacity and that this project would produce 213 elementary students, 108 middle school students and 141 high school students. The EIS also says that the Master Plan has 10-15 acres for school facilities. Are the developers willing to donate land for a school and build a new school at their expense?

Page 140-142 – I agree with all of the comments submitted April 15, 2012 by registered traffic engineers Walton and Victoria Huffman and incorporate them all here by reference. The EIS' traffic report (TIAR) also generates the following comments and questions:

- \* The project's impacts on the State highway outside of the project area are inadequately analyzed.
- \* The project's trip generation numbers should be approximately triple the numbers in the TIAR.
- \* Future projected traffic volumes on the State highway are too low.
- \* The internal capture rate should be approximately 15%, not 55%.
- \* Traffic from other developments between Lahaina and Maalaea, such as Launiupoko, Makila and Ukumehame were not included.
- \* What bicycle, bus and pedestrian facilities are proposed?
- \* The Alternative section of the EIS should include analysis of a smaller Olowalu project.
- \* The TIAR should include analysis of impacts from project construction.
- \*What are State highway traffic counts during peak tourist season?

Pages 160 & 165 – The General Plan Advisory Committee (GPAC) and Maui Planning Commission supported only the portion of this project mauka of the old State highway. The project area between the ocean and the old State highway should be open space.

Page 161 – Contrary to the EIS, the Olowalu Master Plan is NOT consistent with the Pali to Puamana Parkway Master Plan. The Pali to Puamana Plan shows more open space through Olowalu between the ocean and the old State highway.

Pages 176 & 203 — The County Planning Department did not recommend that Olowalu be within Urban Growth Boundaries because the Olowalu plan is inconsistent with the adopted Countywide Policy Plan stating that growth must be located in areas with infrastructure and near employment.

**Page 187** – The project's workforce housing numbers include units costing 160% of median income. Houses 160% of median income are not affordable to Maui's workforce.

Pages 199 & 202 – The EIS incorrectly states that there are inadequate areas in West Maui for needed housing. The Pulelehua project, Wainee project and Kaanapali 2020 project are three large projects more appropriately located to provide future West Maui housing near jobs and infrastructure.

Page 200 – The expense figures in the EIS do not include any funds for a new school or a new fire station.

Page 204 – The adopted West Maui Community Plan designates the Olowalu Master Plan area for agriculture and open space, not a development with 1500 housing units plus commercial.

IV. Alternatives – the EIS says the project area could be developed into agricultural subdivisions. How many additional agricultural lots would be allowed by County regulations?

V. Unavoidable Impacts & VII. Unresolved Issues -- These sections should both include land and construction of a new school and a new fire station.

Thank you for the opportunity to comment on this Draft EIS.

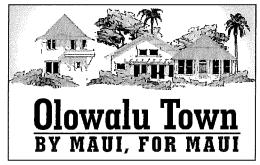
Respectfully submitted,

Michael W. Foley Former Maui County Planning Director 3625 Piikea Place Makawao, Maui, Hawaii, 96768

Cc: Will Spence, Maui County Planning Director

Mayor Alan Arakawa

State Land Use Commission



2035 MAIN STREET WAILUKU HAWAI'I 96793 OFFICE: 808-249-2224 / FAX: 249-2333

October 26, 2015

Michael Foley 3625 Piikea Place Makawao, Hawaii 96768

SUBJECT: Draft Environmental Impact Statement for the Proposed Olowalu

Town Master Plan at Olowalu, Hawaii

Dear Mr. Foley:

Thank you for your letter of April 19, 2012 providing comments on the Draft Environmental Impact Statement (EIS) for the Olowalu Town Master Plan. We offer the following information to the comments noted in your letter.

#### Comment:

Page 12 -The EIS says that Olowalu once had a population of "several thousand". How was this number verified? People lived in Olowalu while there was a sugar cane mill there. Once that mill and the Lahaina mill were closed almost all residents moved out of Olowalu.

### Response:

The population referenced on page 12 of the Draft Environmental Impact Statement (EIS) refers to the Hawaiian population before western contact which brought diseases that devastated the native Hawaiian population. It is estimated that 45 years after Western contact the Hawaiian population on Maui decreased by as much as half by 1823. As noted in the Draft EIS, missionaries in 1831 estimated 831 Hawaiians lived in Olowalu and just five (5) years later, another missionary census estimated Olowalu's population, combined with Ukumehame, at only 718, a 25 percent decline from 1831. By the time of the 1866 census, the population had decreased by 80 percent. Prior to the missionary census of 1831, in 1790, Captain Simon Metcalfe killed more than 100 Hawaiians during the Olowalu Massacre which added to the decline of the Hawaiian population.

Within Olowalu Valley and along the original stream route, traditional Hawaiian agricultural practices were fairly intense and based primarily on *lo`i* agriculture. There were approximately 1,124 *lo`i* kalo, 28 `uala (potato) patches, 27 kula (open field or pasture) and 31 plots of land with unspecified land uses. When examining this level of agricultural intensity during the mid-1800s, and its correlation to population, Marion Kelly presents missionary estimates for the productivity of *lo`i* kalo as a minimum of 10 to 30 individuals per acre (Kelly 1989). Based on the intensity of agriculture and these estimates, it is estimated that 2,000 or more Hawaiians resided in Olowalu before western contact (Cultural Surveys Hawaii, 2015).

#### Comment:

Pages 15 & 164 -The EIS says that a "portion of the pre-development stormwater will be captured". To protect future development, all stormwater should be captured.

#### Response:

More accurately, the Draft EIS states that stormwater runoff "will be collected by a system of retention basins and filtration measures that will accommodate 100 percent of the increased runoff as well as a portion of the pre-development runoff". This is more than the County of Maui requirements under which developments must handle any increased runoff, resulting from the development. In addition to capturing 100 percent of the increased runoff, the objective of the Olowalu Town Master Plan (OTMP) is to capture as much of the pre-development runoff as possible through the implementation of Low Impact Development (LID) measures to ensure that OTMP does not create additional impacts from stormwater runoff. One (1) objective of the OTMP is to reduce the existing impacts from stormwater runoff by reducing the existing quantity entering the nearshore waters and improving water quality. Appendix "B-1" of the Draft EIS includes LID measures which are listed in Table 10 on page 70 of the Draft EIS. These measures are in keeping with the objectives of the recently adopted Department of Public Works Rules for the Design of Storm Water Treatment Best Management Practices.

#### Comment:

Page 18 -The project is described as including public amenities such as community centers, educational facilities, police/fire, medical, library, museum, cultural centers and post office. Are the developers willing to donate land for any or all of these public facilities? Are they willing to build all or any of these facilities at their expense?

#### Response:

As with other development projects, the Applicants will work with State and County agencies to ensure that public amenities are available for the future community. Meanwhile, the OTMP includes areas for public amenities which will be further refined as the development progresses through the process. Where partnerships with other private development and government entities are possible, such partnerships for public facility development will be pursued.

# Comment:

Page 23 -Where are 4 story buildings with 50 feet of height proposed? Are any hotels proposed for Olowalu Town?

#### Response:

The description on Page 23 of the Draft EIS is conceptual and identifies preliminary uses and standards for the proposed development which will be further refined during the County of Maui Project District process. As described within the Draft EIS, the project does include consideration of appropriate small scale lodging facilities within the proposed project.

#### Comment:

Page 25 -Are there 3456 new housing units needed in West Maui in 2030? 1500 of those units or almost half of the units are proposed in Olowalu?

All 3456 of the new units can be provided in existing and proposed West Maui projects that are much more in conformance than Olowalu with State and County planning policies concerning development near jobs and infrastructure.

#### Response:

According to the Maui Planning Department who prepared the projection for the Maui Island Plan (MIP), there is a need for 3,456 new housing units in West Maui by the Year 2030. We understand the General Plan Advisory Committee, Maui Planning Commission, and Maui County Council (Council) were aware of the demand projections and projects included in the growth boundaries, including OTMP, and that the growth boundary delineations would result in the housing projections being exceeded.

Subsequent to the date of your April 2012 letter, the Council passed the MIP and included most of the OTMP within the Urban Growth Boundaries and Rural Growth Boundaries. In addition to the MIP, the OTMP is in conformance with several other

plans, as described in Chapter IV of the EIS. The development of OTMP will entail the development of infrastructure to support the community. We acknowledge that the projections of the Department hold value and purpose with respect to guiding land use allocation decisions during the MIP development process. At the same time, we, however, believe that the projections should be considered a long range planning tool with a degree of flexibility. From a project planning and development standpoint, factors which affect development feasibility and timing include market conditions, financial capacity of the development entity, and regulatory, infrastructural and policy considerations affecting a particular parcel or region (e.g., water availability). With this in mind, we believe the addition of OTMP in the MIP growth boundary is within thresholds which would not adversely impact the goals, objectives, policies and implementing actions of the MIP.

#### <u>Comment:</u>

Page 28 -The EIS says that portions of the proposed development are subject to flooding. Why is any new development proposed in Olowalu be allowed where flooding is anticipated?

# Response:

A portion of Olowalu Town as shown on Figure 13 in the Draft EIS is located in Zone AO which is subject to shallow flooding with flood elevations of one-foot or less. Within the OTMP, the Zone AO lands are designated for parks, open space and farmsteads with a small portion along Olowalu Stream and in the vicinity of Kapaiki designated for residential development. The units will be constructed as permitted by a flood hazard development permit from the County of Maui. The implementation of LID measures as identified in Appendix B-1 of the Draft EIS and the proposed drainage improvements consisting of retention basins and underground drainage systems are expected to control flooding so as not to adversely impact the proposed development.

#### Comment:

Page 28 -The EIS says that 1,000 long term jobs would be created in Olowalu. This number seems too high. How was this number arrived at? How many of the proposed 4,239 Olowalu residents are expected to commute to work out of Olowalu?

# Response:

According to ACM Consultants, Inc. (ACM), the 1,000 jobs estimated to be created within the community is based on an average of one (1) employee per 300 square feet of commercial space projected to be developed within the OTMP. Information available

from the Institute of Traffic Engineers (ITE), U.S. Department of Energy and the San Diego Association of Governments was used to obtain the average.

The transportation consultant estimated, based on the data in the Traffic Impact Analysis Report (TIAR), approximately 60 percent to 70 percent of the jobs in OTMP are anticipated to be held by residents of the OTMP.

#### Comment:

Page 48 -The EIS says that 81% of the Master Plan area is within the UH soil productivity designations A and B. How much of this very productive land is proposed in the Olowalu Master Plan to be in future agricultural use?

#### Response:

A detailed Agricultural Assessment by Plasch Econ Pacific LLC has been prepared, which determined that 532 acres of the 636 acres of the project is potentially productive agricultural lands based on the U.S. Natural Resources Conservation Service (NRCS), Agricultural Lands of Importance to the State of Hawaii (ALISH) and Land Study Bureau (LSB) classification systems. Of the potentially productive agricultural lands approximately 504 acres will be used for non-agricultural purposes. Approximately 28 acres of potentially productive agricultural lands will remain as small farm lots. A copy of the Agricultural Assessment Report is attached as **Exhibit "1"**.

According to the Agricultural Assessment Report, Maui Island has approximately 72,100 acres of potentially productive farmland in the State Land use Agricultural District, of which over 29,600 acres are not currently in cultivation and are available for farming. However, farming much of this land would require major water improvements, including wells, stream diversions, and delivery systems. The removal of approximately 500 acres of potentially productive agricultural lands in Olowalu is not anticipated to adversely impact the inventory of potentially productive agricultural lands available for cultivation, and will not substantially impair actual or potential agricultural production in the vicinity of the OTMP or in the county or State. We note that agricultural lands within the OTMP are largely fallow and nonproductive.

#### Comment:

Page 58 -The EIS says that potential impacts from shoreline erosion and future sea level rise have not been identified. This is a very serious omission and the Final EIS should include analysis of both shoreline erosion and sea level rise.

#### Response:

The EIS includes a discussion on shoreline erosion and future sea level rise. See **Exhibit "2"**.

#### Comment:

Pages 61 & 132 -The EIS says that the Master Plan proposes areas and provides land where a new fire station and emergency services can be accommodated. Are the developers willing to donate land and build a new fire station at their expense?

#### Response:

As previously noted, we will work with State and County agencies to ensure that public facilities, such as a new fire station, are available for the future community. Where partnerships with other private development and government entities are possible, such partnerships for public facility development will be pursued.

#### Comment:

Page 134 & 135 -The EIS says that all public schools in Lahaina are already over capacity and that this project would produce 213 elementary students, 108 middle school students and 141 high school students. The EIS also says that the Master Plan has 10-15 acres for school facilities. Are the developers willing to donate land for a school and build a new school at their expense?

#### Response:

The OTMP falls within the West Maui School Impact District and coordination with the State Department of Education will be undertaken to ensure that assessment policy provisions are appropriately addressed. The DOE's practice is to require impact fees, land donations, or some combination of both.

# Comment:

Page 140-142 -I agree with all of the comments submitted April 15, 2012 by registered traffic engineers Walton and Victoria Huffman and incorporate them all here by reference. The EIS' traffic report (TIAR) also generates the following comments and questions:

The project's impacts on the State highway outside of the project area are inadequately analyzed.

The project's trip generation numbers should be approximately triple the numbers in the TIAR.

Future projected traffic volumes on the State highway are too low.

The internal capture rate should be approximately 15%, not 55%.

Traffic from other developments between Lahaina and Maalaea, such as Launiupoko, Makila and Ukumehame were not included.

What bicycle, bus and pedestrian facilities are proposed?

The TIAR should include analysis of impacts from project construction.

What are State highway traffic counts during peak tourist season?

#### Response:

In response to your traffic-related comments, we have attached hereto the response letter to Walter and Victoria Huffman. See **Exhibit "3"**. With respect to your individual comments, we note that the Traffic Impact Analysis Report (TIAR) prepared by transportation consultant Roger Dyar was prepared in coordination with the State of Hawaii, Department of Transportation (HDOT) to identify the scope of the study. Further, a Final TIAR has been prepared by Roger Dyar in coordination with HDOT, with updated traffic counts taken in 2013, an agreed capture rate and scope for the study. Refer to **Exhibit "4"**.

As noted previously, the site plan for OTMP is conceptual and will be refined during the County of Maui Project District process which will include more detailed plans addressing proposed bicycle, bus, and pedestrian facilities. Also, as the OTMP progresses through the permitting process and prior to implementation of development, a construction traffic management plan will be prepared and submitted to HDOT and the County of Maui, Department of Public Works for review and approval.

#### Comment:

The Alternative section of the EIS should include analysis of a smaller Olowalu project.

#### Response:

The Alternatives Analysis includes Alternative 2. Alternative 2 excludes the area makai of Honoapiilani Highway from the OTMP, and reflects a geographically smaller project. See **Exhibit "5"**.

#### Comment:

Pages 160 & 165 -The General Plan Advisory Committee (GPAC) and Maui Planning Commission supported only the portion of this project mauka of the old State highway. The project area between the ocean and the old State highway should be open space.

# Response:

Pages 160 and 165 of the Draft EIS have been updated to reflect the adoption of the MIP on December 28, 2012 which excluded the area makai of the existing Honoapiilani Highway. As noted above, the alternatives analysis in the EIS addresses this land use scenario. See **Exhibit "6"**.

#### Comment:

Page 161-Contrary to the EIS, the Olowalu Master Plan is NOT consistent with the Pali to Puamana Parkway Master Plan. The Pali to Puamana Plan shows more open space through Olowalu between the ocean and the old State highway.

#### Response:

Chapter 8 of the MIP includes the following footnote which relates to implementation of the proposed Pali to Puamana Plan:

"The future delineation of potential urban growth boundaries makai of the existing Honoapiilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan. Such delineation may consider the need to: protect adjacent coastal and marine ecosystems (including the reefs of Olowalu), enhance public shoreline access and open space, and implement the proposed Pali to Puamana Plan" (MIP at 8-64).

Since implementation of the proposed Pali to Puamana Parkway Master Plan may be undertaken in the context of review of a Community Plan Amendment of the West Maui Community Plan, more specific land use allocations and relationships will be defined during the Community Plan Amendment review process. Refer to **Exhibit "6"**.

#### Comment:

Pages 176 & 203 -The County Planning Department did not recommend that Olowalu be within Urban Growth Boundaries because the Olowalu plan is inconsistent with the adopted Countywide Policy Plan stating that growth must be located in areas with infrastructure and near employment.

#### Response:

The Planning Department, during the Council's review of the MIP, supported inclusion of the entire OTMP in the Urban and Rural Growth Boundaries. As noted previously, the adopted MIP includes the OTMP on the mauka side of the existing Honoapiilani Highway within the Urban and Rural Growth Boundaries of the Directed Growth Map. The MIP also includes a provision that the area makai of Honoapiilani Highway may be considered in the context of the West Maui Community Plan review process or amendment to the Community Plan. The guidance provided by the MIP is deemed to be consistent with the Countywide Policy Plan.

#### Comment:

Page 187 -The project's workforce housing numbers include units costing 160% of median income. Houses 160% of median income are not affordable to Maui's workforce.

#### Response:

In accordance with Maui's Workforce Housing Policy, the affordable units will be sold to residents with the income requirements for Maui Island as determined by the Department of Housing and Human Concerns.

#### Comment:

Pages 199 & 202 -The EIS incorrectly states that there are inadequate areas in West Maui for needed housing. The Pulelehua project, Wainee project and Kaanapali 2020 project are three large projects more appropriately located to provide future West Maui housing near jobs and infrastructure.

#### Response:

For clarification, as stated in the Draft EIS "in the West Maui region, there are limited available infill areas to accommodate growth". By definition in the MIP, infill development is development of land that is largely vacant or underutilized within areas that are already largely developed. The MIP identified the Kahoma and Lahaina Infill developments. Projects such as Wainee and Kaanapali 2020 are identified as urban expansion projects similar to OTMP. Pulelehua meanwhile was granted county zoning during the preparation of the MIP. The MIP recognized urban expansion was necessary in West Maui in order to meet the future needs of the region. Since the preparation of the Draft EIS, the MIP has been adopted and determined that OTMP is also an appropriate area for future development of housing.

The EIS has been updated to clarify the statement. Refer to **Exhibit "6"**.

#### Comment:

Page 200 -The expense figures in the EIS do not include any funds for a new school or a new fire station.

# Response:

According to the Department of Fire and Public Safety, a new fire station is estimated to cost approximately \$11 million to construct, \$1 million to equip, and will have an annual operating cost of \$1.25 million. See **Exhibit "7"**. Relative to a new school, it has not been determined whether the school will be a public or private institution. However, the Olowalu Town Master Plan has made accommodations to include areas for an educational facility. Adoption of the West Maui School Impact District requires the applicants to pay its fair share for educational facilities in the West Maui school district to mitigate impacts resulting from an increase in student enrollment.

#### Comment:

Page 204 -The adopted West Maui Community Plan designates the Olowalu Master Plan area for agriculture and open space, not a development with 1500 housing units plus commercial.

#### Response:

As noted in Chapter I, Section I and Chapter III, Section E of the Draft EIS, we are aware that the West Maui Community Plan designates the area as agriculture and open space and a Community Plan Amendment will be required in order to implement the OTMP. The current West Maui Community Plan was adopted in 1996. However, the MIP, which designates most of the OTMP within the Urban Growth Boundary or Rural Growth Boundary, was adopted much more recently (December 2012).

#### Comment:

IV. Alternatives -the EIS says the project area could be developed into agricultural subdivisions. How many additional agricultural lots would be allowed by County regulations?

#### Response:

The maximum agricultural lots have been created and no additional lots are permitted pursuant to County zoning regulations. The No Action or Agricultural Subdivision Alternative refers to the continuation of the existing agricultural lots in agriculture which would allow two (2) farm dwellings and additional farm workers housing provided it meets the criteria of county zoning. See **Exhibit "8"**.

#### Comment:

V. Unavoidable Impacts & VII. Unresolved Issues -- These sections should both include land and construction of a new school and a new fire station.

# Response:

The Summary of Unresolved Issues have been expanded to include additional discussion of public facilities, such as a new school and fire station. Refer to **Exhibit** "9". As unresolved issues, unavoidable impacts relating to a new school and fire station have yet to be determined.

Thank you again for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter and this response will be included in the Final EIS. Should you wish to receive a copy of the Final EIS document, or portion thereof, please submit your request in writing to Munekiyo Hiraga at 305 High Street, Suite 104, Wailuku, Hawaii 96793 (Attention: Colleen Suyama).

Very truly yours,

William Frampton

Olowalu Town, LLC

David Ward

Olowalu Town, LLC

WF:DW **Enclosures** 

Peter Martin, Olowalu Ekolu, LLC Cc:

Jennifer Lim, Carlsmith Ball, LLP

Dominic Suguitan, ACM Consultants, Inc. Stacy Otomo, Otomo Engineering, Inc. Bruce Plasch, Plasch Econ Pacific LLC Roger Dyar, Transportation Engineer Colleen Suyama, Munekiyo Hiraga K:\DATA\OlowaluTown\MasterP\Draft EIS\Response Letters\Foley Response.doc

# EXHIBIT "1"

Plasch Report on CD
Appendix "N-1" in EIS
(Attached with Original Letter Only)

silica and salt which are typical background constituents. It did not contain other detectable chemicals typical of leachate associated with an unlined landfill. As such, it does not appear that chemical pollutants from the closed landfill are leaching into the groundwater resources at Olowalu. See **Exhibit** "C"Appendix D".

Further, the Assessment of Marine Water Chemistry and Biotic Community Structure for Olowalu prepared by Marine Research Consultants, Inc. identified only nutrients associated with groundwater and stormwater discharges, which indicate leaching of chemical pollutants from the closed landfill is not occurring offshore. See Exhibit "D" Refer to Appendix "E".

# b. <u>Potential Impacts and Mitigation Measures</u>

The project site has not been in active sugarcane production for over 10 years since the closure of Pioneer Mill in 1999. Since that time, the area has largely remained fallow. There has been no large-scale use of pesticides or fertilizers on the property for over 10 years, as such no adverse significant impacts are anticipated.

The use of fertilizers for landscape maintenance within the Master Plan for Alternatives 1 and 2 will be minimal. Drainage improvements for the proposed project are designed to ensure that increases in runoff due to the development are retained on-site and do not impact downstream properties and nearshore marine environments.

#### 6. <u>Natural Hazards</u>

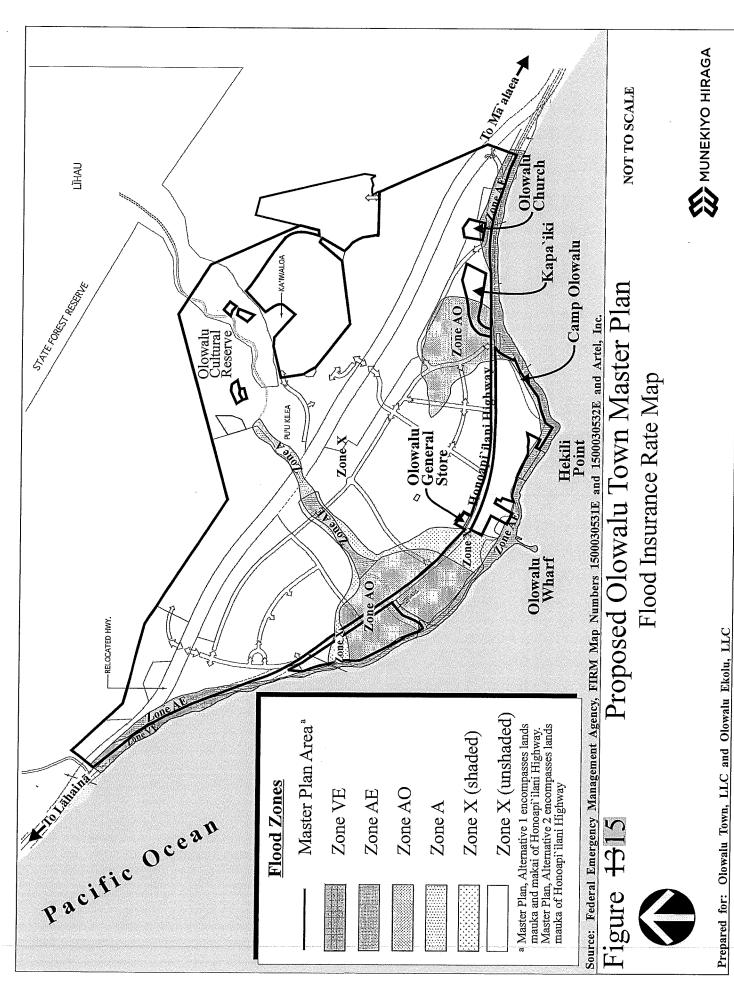
#### a. <u>Existing Conditions</u>

The Federal Emergency Management Agency (FEMA) manages the National Flood Insurance Program under which flood-prone areas are identified and flood insurance is made available. FEMA produces Flood Insurance Rate Maps (FIRM), an insurance and floodplain map that identifies the areas subject to flooding during a 1 percent annual chance (100-year) flood event, as well as areas inundated by the 0.2 percent annual chance flood. The 100-year floodplain is the boundary of the flood that has a 1 percent chance of being equaled or exceeded in any given year, while the 500-year floodplain is

the boundary of the flood that has a 0.2 percent chance of being equaled or exceeded in any given year. FEMA's Flood Insurance Rate Map (FIRM) adopted by the County of Maui on September 19, 2012, indicates The Master Plan area is areas in Alternatives 1 and 2 are located in Flood Zone "X" (unshaded), Zone "X" (shaded), Zone "A", Zone "AE", Zone "AO", and Zone "VE". See Figure 15.

Zone "X" (unshaded) is an area of minimal flooding, while Zone "X" (shaded) is an area of moderate flood hazard with average depths of less than 1 foot, usually the area between the limits of the 100-year and 500-year floods. Zone "X" (shaded) is located on the outer fringes of Olowalu Stream. Zone "A" are areas with a 1 percent chance of flooding; Zone "AE" is the base floodplain where base flood elevations are provided; and Zone "AO" is river or stream flood hazard areas and areas with a 1 percent or greater chance of shallow flooding with a depth of 1 foot. Zones "A", "AE" and "AO" are located along the shoreline and along Olowalu Stream and Gulch and an area near Kapa'iki. Zone "VE" is the coastal flood area located along the shoreline and are coastal areas with a 1 percent or greater chance of flooding and an additional hazard from storm waves. The flood elevation in this area is 7 feet above mean sea level (amsl). SeeRefer to Figure 1315.

Maui's coastal lands, along with other coastal areas around the world, are susceptible to erosion, accretion and sea level change. Because significant variability in sea level can occur, determining global mean sea level changes are complex. Nevertheless, numerous studies have sought to measure sea level rise. Global sea level rise is assumed to be caused by melting of ice reservoirs in Greenland and Antarctica, as well as various other alpine glaciers and ice sheets, and thermal expansion of the upper ocean water column due to heating of the atmosphere. In Olowalu, erosion rates and potential impacts from sea level rise have not been identified.



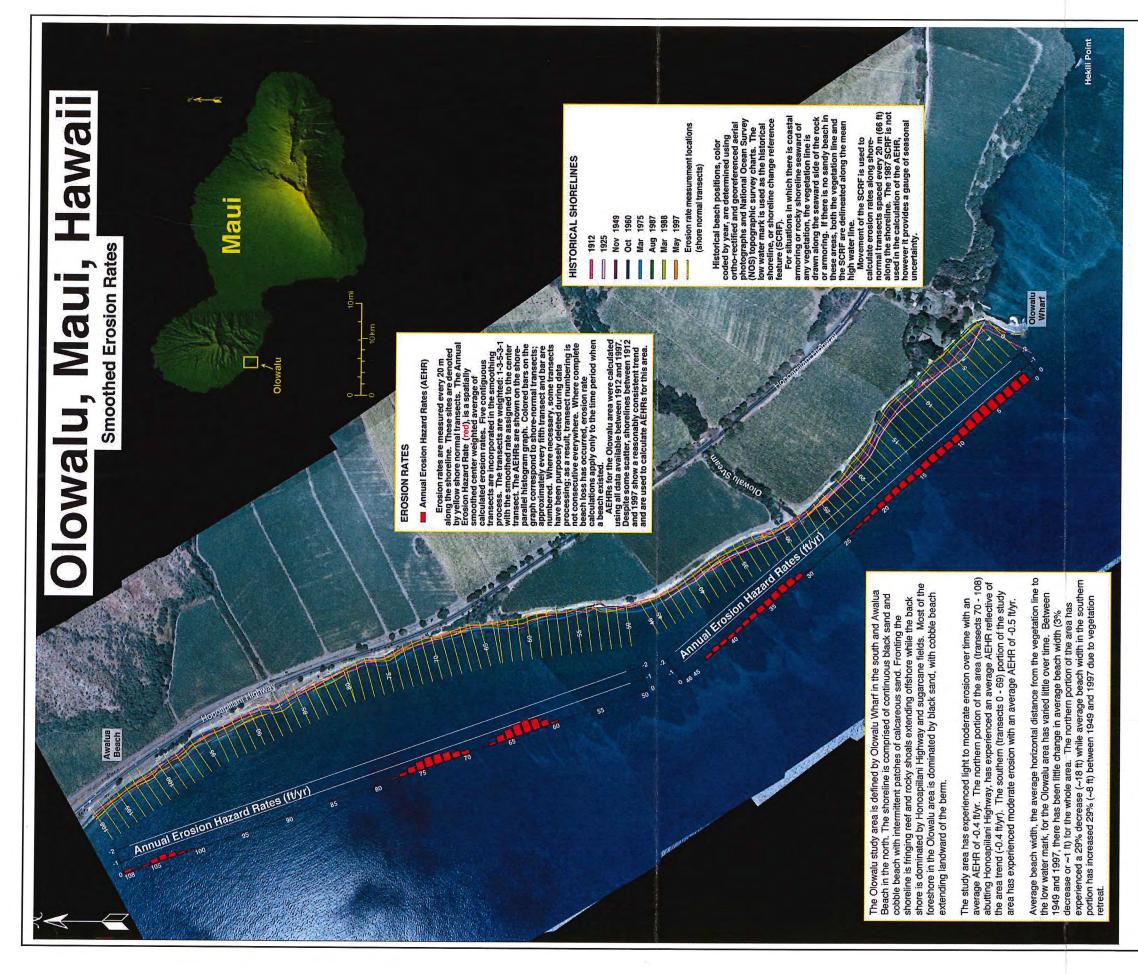
Olowalu Town/MasterPl/Final EIS\FIRM

Since the preparation of the Draft EIS, the County of Maui has adopted erosion rate maps for Olowalu. According to the Erosion Maps prepared for the County of Maui Department of Planning, the Olowalu study area is defined by Olowalu Wharf and Hekili Point. Olowalu Wharf erosion map encompasses the shoreline segment from Olowalu Wharf to the south to Awalua Beach to the north while the Hekili Point erosion map encompasses the shoreline segment from Olowalu Wharf to the north to Ukumehame Gulch to the southwest. The shoreline on the Olowalu Wharf erosion map is comprised of continuous black sand beach and cobble beach with intermittent patches of calcerous sand, while the Hekili Point erosion map is comprised of both sand and cobble beaches. Fronting the shoreline is a fringing reef and rocky shoals extending offshore while the back shore is dominated by Honoapi'ilani Highway and former sugarcane fields and kiawe trees. See Figure 16 and Figure 17.

The Olowalu Wharf erosion map study area experiences light to moderate erosion over time with an average Annual Erosion Hazard Rate (AEHR) of -0.4 ft/year. The northern portion of the area (transacts 70-108) abutting Honoapi`ilani Highway has an average AEHR reflective of the trend of -0.4 ft/yr. The southern area (transacts 0-69) has experienced moderate erosion with an average of -0.5 ft/yr. Refer to **Figure 16**.

Average beach width, the average horizontal distance from the vegetation line to the low water mark, for the Olowalu Wharf erosion map area has varied little over time. Between 1949 through 1997, there has been little change in average beach width (3 percent decrease or 1 foot) for the whole area. However, the northern portion of the area has experienced a 29 percent decrease (~18 ft) while average beach width in the southern portion has increased 29 percent (~8 ft) between 1949 and 1997 due to vegetation retreat.

The Hekili Point erosion map study area as a whole has experienced a consistent trend of moderate erosion with an average AEHR of -0.7 ft/yr. The shoreline along the western portion of the area (transects 105-210) is dominated by stands of kiawe trees. This section has experienced moderate erosion over time reflecting the area trend (-0.7 ft/yr). The eastern portion (transects 24-104) is backed by Honoapi'ilani Highway. Here, several sections of the highway are directly threatened by shoreline change. This



Source: Coastal Geology Group, School of Ocean and Earth Science and Technology, University of Hawai'i at Manoa



# Olowalu Wharf Shoreline Erosion Rates Map Proposed Olowalu Town Master Plan

NOT TO SCALE



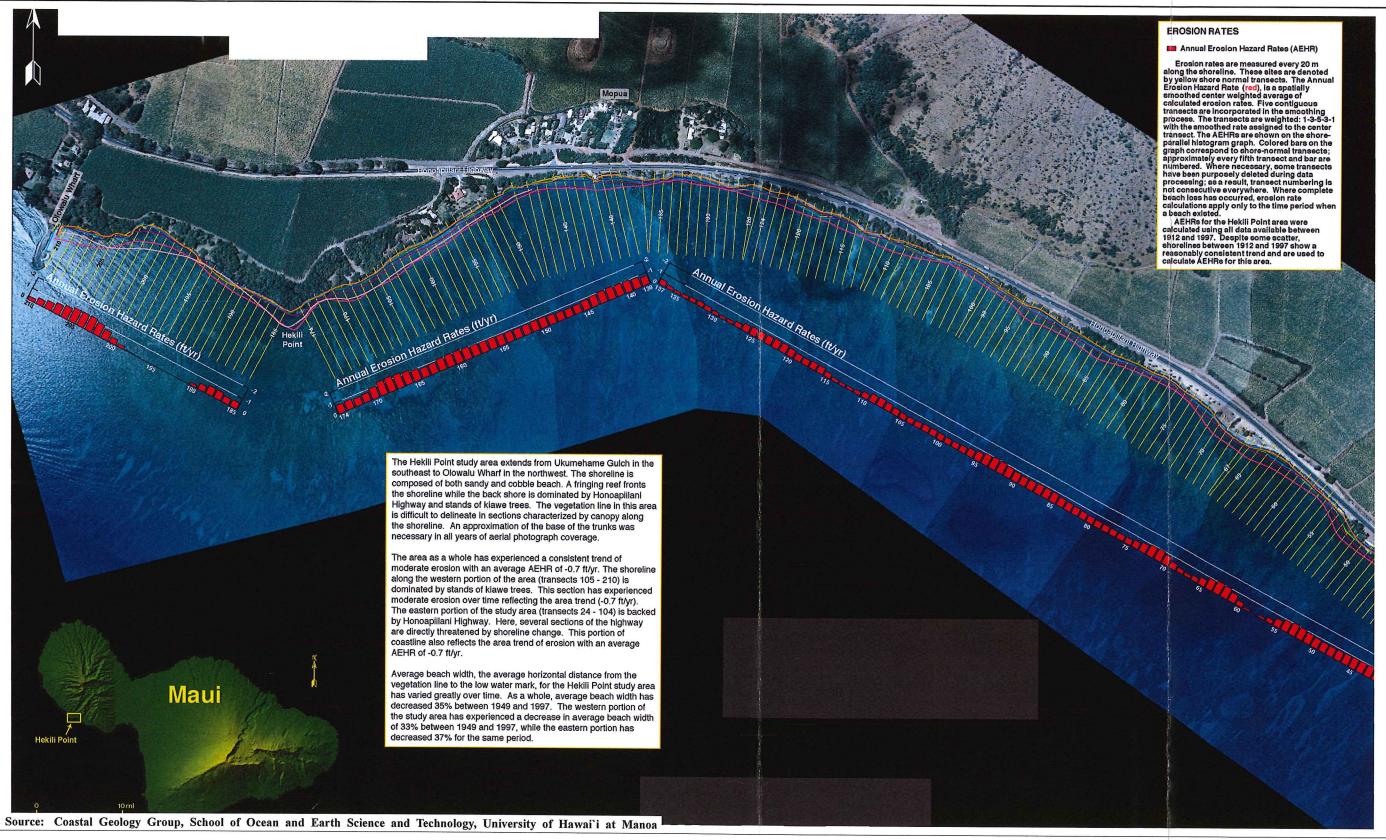


Figure 17



Proposed Olowalu Town Master Plan Hekili Point Shoreline Erosion Rates Map

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portion of coastline also reflects the area trend of erosion with an average AEHR of -0.7 ft/yr. Refer to **Figure 17**.

Average beach width for the Hekili Point study area has varied greatly. As a whole, average beach width has decreased 35 percent between 1949 and 1997. The western portion has experienced a decrease in average beach width of 33 percent between 1949 and 1997, while the eastern portion has decreased 37 percent for the same period.

In addition, the U.S. Geological Survey (USGS) Technical Hazard Map for the Olowalu region between Launiupoko Point and the southern limits of Ukumehame State Beach Park has an overall hazard rate from moderate to high which is a direct function of the low coastal slope of this area. To the east, where the individual hazards are mitigated by the increase in coastal slope and harder substrate, it is reduced to moderate to low (USGS, 2002).

The tsunami hazard is ranked high along this entire low-lying coastal terrace. It is reduced to moderately high for the steeper rocky head-lands to the east. The stream-flooding hazard is moderately high for the Ukumehame Beach area and moderately low only along the steep head-lands to the east. Along the Olowalu coast, it is ranked high where larger streams drain the increasingly wetter mountains to the west. The threat from high waves is ranked moderately low here where the greatest waves reaching the shoreline are associated with the southern swell. The storm hazard however, is ranked moderately high along this coast which faces south-west toward the majority of passing storms that track to the west. Erosion is greatest along the lowestlying beach areas between Ukumehame Beach and Mopua, where it is ranked high. Sections of the coastal highway, the sole southern access to West Maui, are threatened by coastal erosion and have been protected with armoring by the State Department of Transportation (HDOT). At Mopua, the rocky point partly mitigates erosion, so this hazard is reduced to moderately low. Beyond Hekili Point, the erosion threat is ranked moderately high. The sea level and volcanic/seismic hazards are moderately high because of the low coastal slope and Olowalu's location within seismic hazard zone 2 (USGS, 2002).

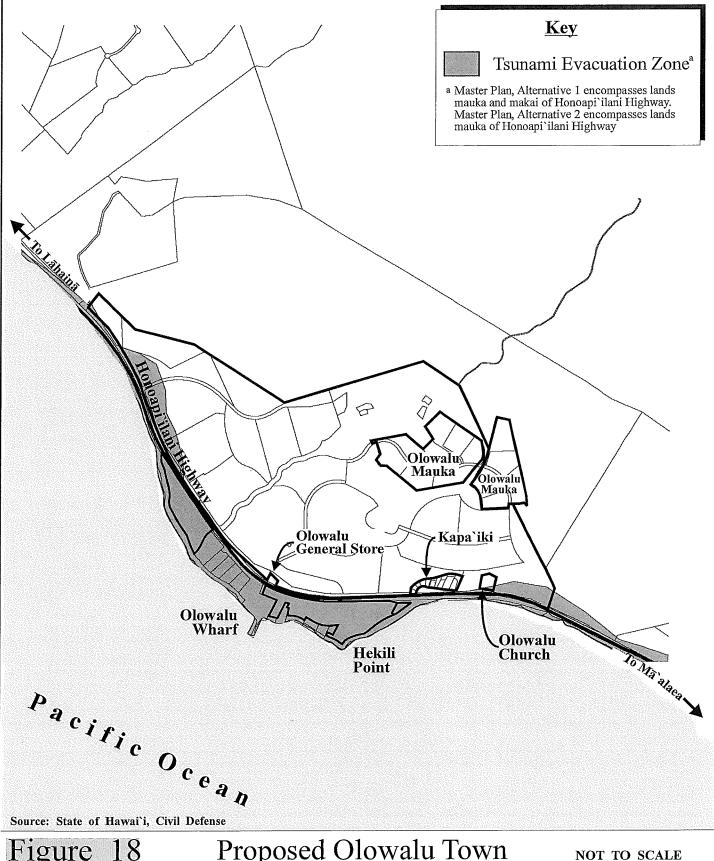
The tsunami evacuation zone for Olowalu is the area seaward (makai) of Honoapi`ilani Highway near Olowalu General Store. See **Figure 18**. The zone moves 400 feet mauka of the highway in areas where the highway is close to the shoreline mainly south of Kapa`iki and north near the County's Recycling and Refuse Convenience Center. The sloping topography of the mauka lands provides higher ground for evacuation purposes through the existing Olowalu roadways.

According to the University of Hawai'i (UH) Sea Grant College Program, "Sea-Level Rise and Coastal Land Use in Hawaii: A Policy Tool Kit for State and Local Governments, 2011" report sea levels are rising due to climate change. Over the past century, global mean sea level rose about six (6) to eight (8) inches and the rate of global sea level rise has doubled since 1990. According to the report, it recommends using sea level rise benchmarks of 1-foot by year 2050 and 3-feet by 2100 for Hawai'i.

Three (3) basic approaches to sea-level rise adaptation have been identified:

- Accommodation. Adjustment of an existing system to changing natural conditions (e.g., strengthening flood-proofing regulations or expanding hazard zones).
- Protection. Hardening of a system in its existing location to withstand impacts from changing conditions (e.g., shoreline hardening such as seawalls and revetments).
- Retreat. Relocating existing structures to avoid impacts.

Located in Hawai'i, the project site is also susceptible to hurricanes. The Central Pacific hurricane season starts on June 1<sup>st</sup> and ends on November 11<sup>th</sup>. The Hawai'i State Civil Defense operates a system of outdoor sirens throughout the State to alert people of emergencies and natural hazards, including hurricanes and tsunamis. There is an existing siren on the makai side of Honoapi'ilani Highway (entering Olowalu from Mā'alaea) near Camp Olowalu.



Figure

Proposed Olowalu Town Master Plan Tsunami Evacuation Map



MUNEKIYO HIRAGA

The region of West Maui that the project is located in is susceptible to wild fire hazards, particularly during the long dry seasons. Lands that were formerly cultivated for sugarcane in West Maui have reverted to dry grassland and shrubland following the end of sugar production in the region. Also, State lands abutting these areas are not maintained and are also susceptible to wildfires. Dry vegetation on these private and State lands serve as a fuel hazard for fires. In 2007, a large fire in the area of Olowalu and Launiupoko swept up into the nearby West Maui Natural Area Reserve and in May 2010, another fire broke out in the region.

#### b. Potential Impacts and Mitigation Measures

As previously noted, portions of the Master Plan fall within flood hazard areas. The proposed Master Plan does not involve any development within the portion of the Master Plan area that is within Flood Zone VE, the area along the shoreline with a 1 percent or greater chance of flooding and additional hazards from storm waves. Portions of the Master Plan will be located in Zones AO (Depth 1 foot) and X (shaded) which may be prone to shallow flooding.

A major portion of the Master Plan area for Alternatives 1 and 2 is located within Flood Zone "X" (unshaded), an area of minimal flooding and outside of the 0.2 percent annual chance flood. In Alternative 1, the remaining portion of the Master Plan is located within Flood Zone "X" (shaded) along Olowalu Stream and Special Flood Hazard Areas Zones "A" along the upper portion of Olowalu Stream in the OCR, "AE" along the shoreline mainly in the 150 shoreline setback area, "AO" along Olowalu Stream, and "VE" coastal flood area with velocity hazard (wave action). Refer to **Figure 15**.

In Alternative 2 the areas makai of Honoapi'ilani Highway are not included in the Master Plan, therefore, Alternative 2 is not located within Zones "AE" and "VE". Portions of the Master Plan for Alternative 2 mauka of the highway are located in the flood zones similar to Alternative 1. Refer to **Figure 15**.

Generally, lands of the Master Plan for Alternatives 1 and 2 which lie within the Special Flood Hazard Area are envisioned for agriculture, OCR, or parks and open space. Construction within otherspecial flood hazard areas will be in compliance with Section 16.62.060, MCC, relating to standards for development within special flood hazard areas. Flood Hazard Area Development Permits will be obtained prior to the initiation of construction activities, as applicable.

While it is difficult to forecast specific sea-level rise patterns in the future, the applicant recognizes that changes in global sea-levels are an ongoing process that may cause changes to coastal landscapes. As such, the According to the National Oceanic and Atmospheric Administration's (NOAA) digital coastal map, by year 2100 a 3-feet or 1-meter sea level rise for the Olowalu coastline will be limited to the area of the Master Plan in Alternative 1 along the shoreline. See **Figure 19** (Hekili Point) and **Figure 20** (Olowalu). The northern side of the Olowalu coast line appears to have the greater inland inundation.

The proposed Master Plan provides for a for Alternative 1 observes an existing 150-foot setback from the coastline within which no development will occur. See **Figure 21**. The 150-foot shoreline setback is an existing condition that was established as part of a Special Management Area (SMA) Use Permit approved in 2000. See **Appendix "S"**. The anticipated inundation zone from sea level rise by the year 2100 is located near the shoreline in many cases on the beach area. As such, the 150-foot setback area is adequate to ensure that development is not adversely affected by future sea level rise.

To mitigate potential impacts associated with natural disasters, all buildings within the proposed Master Plan for Alternatives 1 and 2 will comply with the Uniform Building Code, as amended for Maui County, and provided for in Section 16.26 of the MCC. In addition, the aApplicants will coordinate with the Hawaii State Civil Defense agency to determine whether public facilities within the Master Plan for Alternatives 1 and 2 meet public shelter specifications and can serve as a shelter during emergencies, including wildfire, tsunami or hurricane events. As appropriate, the Applicants will coordinate with the Hawai'i State Civil Defense agency to develop an evacuation plan that would include, at minimum, appropriate signage directing the public to safe locations in the event of an emergency.



Note: Delineations are approximate and are intended to be illustrative only.

Source: Google Earth and NOAA, Office for Coastal Management Digital Coast





Proposed Olowalu Town Master Plan
Three (3) Feet Sea Level Rise Map South of Olowalu Wharf

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Note: Delineations are approximate and are intended to be illustrative only.

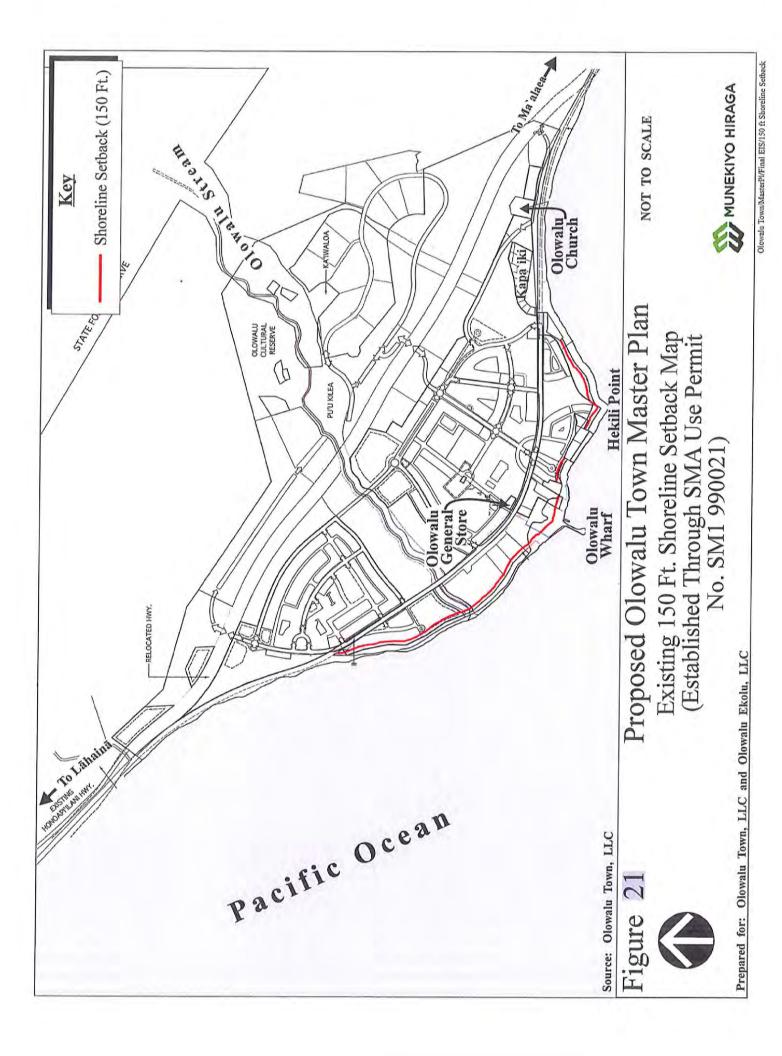
Source: Google Earth and NOAA, Office for Coastal Management Digital Coast



Proposed Olowalu Town Master Plan Three (3) Feet Sea Level Rise Map North of Olowalu Wharf

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Regarding wildfire hazards, both fuel breaks and certain grazing patterns can greatly reduce fuel loading and thereby protect against fire hazard. Currently, a portion of the land is being used to graze cattle and horses to reduce grasses that provide fuel to wildfires. The proposed Master Plan for Alternatives 1 and 2 includes the OCR and will provide for parks, greenways, and open space interspersed among residential and commercial development. This development pattern will provide for fuel breaks that will reduce the risk of fire hazard in the region. The Master Plan for Alternatives 1 and 2 will upgrade the existing water system, including fire protection improvements to the existing and future community.

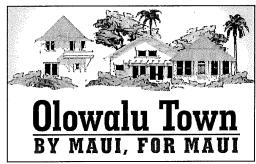
The Master Plan for Alternatives 1 and 2 also proposes areas where a new fire station can be accommodated which will enhance the Fire Department's service areas in West Maui.

# 7. Flora, Fauna, and Aquatic Resources

#### a. Existing Conditions

A Flora and Fauna Survey was conducted for the Master Plan area in May 2010. The survey covered 636 acres of landthe Alternative 1 lands. The Alternative 2 lands are encompassed in the study area. See Appendix "EF". The majority of the project area is heavily disturbed from over 100 years of intensive agricultural activity. In pre-contact times, the area would have been characterized as a dry native shrubland with a few scattered trees. By the latter half of the 1800s, the entire area was converted to sugarcane cultivation. Following the end of sugar production in the region, most of the land stands idle and has reverted to a dry grassland/shrubland dominated by hardy, nonnative species.

Two (2) species dominate the property: buffelgrass (*Cenchrus ciliaris*) and opiuma (*Pithecellobium dulce*). Buffelgrass has spread throughout the dry leeward districts of Maui. 'Opiuma has also spread dramatically in former sugarcane lands. Within the project site, 'opiuma is most prolific along Olowalu Stream and on the coastal plain where its deep roots can access ground water resources. Koa haole (*Leucaena leucocephala*), Java plum (*Syzygium cumini*), 'uhaloa (*Waltheria indica*), kiawe (*Prosopis pallida*),



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October 26, 2015

Victoria and Walton Huffman 9909 Lemon Avenue La Mesa, CA 91941

SUBJECT: Draft Environmental Impact Statement for the Proposed Olowalu

Town Master Plan at Olowalu, Hawaii

Dear Mr. and Mrs. Huffman:

We thank you for your letter responding to our request for comments on the Draft Environmental Impact Statement (EIS) for the proposed Olowalu Town Master Plan (OTMP). We offer the following information in response to the comments noted in the letter.

#### Comment:

We are very concerned by the lack of existing or planned roadway infrastructure to support a development the size of the proposed Olowalu Town Master Plan. As California Registered Traffic Engineers with a combined 60 years experience in a variety of traffic engineering fields including reviewing traffic studies and environmental documents for development projects, we are sending you these comments in an effort to provide you with an understanding of this project's impacts to circulation. If this project is approved as proposed, traffic flow between West Maui and Central and South Maui will become extremely constrained. Honoapi'ilani Highway between Pali and Ma'alaea (which is not identified for improvements in the draft Maui Island Plan) would be a critical choke point restricting island circulation. This could have a profound negative economic impact on the island.

#### Response:

We appreciate your comment on the Draft EIS. For your information since then the Maui Island Plan (MIP) has been adopted and includes the realignment of Honoapi`ilani Highway.

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#### Comment:

The DEIS does not disclose the proposed project's impacts to Honoapi`ilani Highway (State Route 30) outside the project site and the substantial affect this impact could have on public safety and on the economic welfare of the community and the State. Additionally, the DEIS does not analyze each phase of the development as required by HAR Section 11-200-17. For these reasons, we have found the DEIS for the Olowalu Town Master Plan to be inadequate.

#### Response:

A Final Traffic Impact Analysis Report (TIAR) in coordination with the State of Hawaii, Department of Transportation (HDOT) has been prepared addressing your comment and has been included in the Final EIS as "Appendix P-1". A copy of the TIAR is provided. See **Exhibit "1"**.

#### Comment:

The DEIS and its Preliminary Traffic Impact Analysis Report ("TIAR") does not acknowledge or disclose any significant impact to Honoapi`ilani Highway for the following reasons:

The TIAR assumes Honoapi`ilani Highway is widened to four lanes north of the project site; however, there is no identified funding for this costly infrastructure improvement.

The TIAR assumes Honoapi`ilani Highway can accommodate substantially more traffic than it actually can before failing. The TIAR assumes Honoapi`ilani Highway south of the project site can accommodate 33,300 average daily vehicle trips (ADT) based on the assumption that this highway is an uninterrupted flow highway rather than an arterial with access points to the beach and to scenic lookouts. The Proposed Roadway Development Program dated January 2007 prepared for the County of Maui Planning Department for the draft Maui Island Plan assumed Honoapi'ilani Highway south of the Olowalu Town Master Plan site could accommodate about 22,000 ADT before failing.

# Response:

Regarding the foregoing comments, we offer the following responses in the order presented:

 A Draft EIS for the Realignment and Widening of Honoapi`ilani Highway (Maalaea to Launiupoko) is being prepared for the HDOT. Although not currently funded, completion of the EIS process will enable the HDOT to seek funding Victoria and Walton Huffman October 26, 2015 Page 3

sources for the highway improvements. Consideration of this improvement is appropriate since development of the OTMP will take several years to implement. We are aware that construction of the highway improvement is necessary in order to implement the total Master Plan. As such, a future highway corridor is included in the Master Plan. As a follow-up to discussions with the HDOT, the Final TIAR includes recent traffic counts obtained in 2013 to estimate the average daily traffic (ADT) of 33,300 vehicles. As such, the ADT in the TIAR is more current than the 2007 Planning Department study.

• In addition to access points to scenic lookouts on the "pali", the Ukumehame Rifle Range and a parking lot to a beach park along the shoreline, there are two (2) access points to a subdivision at Ukumehame south of the project site. According to the transportation consultant the current roadway operates in many ways like a highway with very limited access for much of the day. Honoapi'ilani Highway south of the project site has wide shoulders, limited points of access, and very few left turns which enables the highway to function similar to a facility having uninterrupted flow of traffic.

#### Comment:

An unreasonably high, and technically unjustified, internal capture rate of 55% for project generated trips is assumed in the TIAR. Consequently, not enough project trips are distributed to Honoapi`ilani Highway. The Institute of Traffic Engineers (ITE) defines internal trip capture rate as a percentage reduction that can be applied to the trip generation estimates for the individual land uses to account for trips internal to the site. A nationally recognized methodology used by traffic engineers, such as the Trip Generation Handbook, 2nd Edition, by the Institute of Traffic Engineers (ITE) should be used to calculate internal capture. This methodology was used to calculate internal capture for both the Wail`ele project in Central Maui and the Honua`ula project in South Maui. The internal capture rates for Wail`ele and Honua`ula were about 10% and 15%, respectively. (See Attachment A). Using the Trip Generation Handbook methodology, the internal capture of the Olowalu Master Plan would be about 15%.

# Response:

Methodologies used in jurisdictions across the country show the ability of Honoapi`ilani Highway to handle larger volumes of traffic than a typical two-lane road and the estimated 22,000 average daily vehicle trips (ADT) identified in the 2007 Report prepared for the Planning Department. The Final TIAR estimated the ADT in the OTMP would be between 31,775 to 34,220 vehicles at full buildout. The Final TIAR estimated the capacity of the existing 2-lane Honoapi`ilani Highway as 33,300 ADT and the estimated daily maximum capacity of the realigned 4-lane Honoapi`ilani Highway as 55,500 vehicles.

According to the traffic consultant, the Institute of Traffic Engineers (ITE) Trip Generation Handbook (9th Edition) procedure for internal capture relies on data for developments such as Honua ula and Waiale which follow more typical land use spatial allocations and relationships. The OTMP differs from these projects in that it proposes to follow the principals of the Hawaiian ahupua'a system of The ITE methodology does not adequately address a land management. sustainable new town such as the OTMP which follows the principals of the Hawaiian ahupua'a system. The 55 percent internal capture rate was developed as indicated in the report taking into account the type and style of the OTMP and its ability to support the anticipated retail and office developments. The methodology used is generally that of the Florida Department of Transportation in recent publications as noted in the report along with information from other states. As a follow-up to discussions with the HDOT, the Final TIAR was prepared with a project recommended internal capture rate of 64/36 percent and a HDOT internal capture rate of 25/75 percent.

# Comment:

An unreasonably high, and technically unjustified, number of pass-by and diverted linked trips were assumed in the TIAR. Consequently not enough project trips are distributed to Honoapi`ilani Highway. Pass-by trip reductions should not be applied to re-aligned Honoapi`ilani Highway because it is not anticipated driveways would be allowed on this access controlled facility. The diverted linked trip reductions are high compared to documented rates in ITE and other credible sources.

Future traffic volumes on Honoapi`ilani Highway are underestimated, due to the following:

Existing traffic counts used by the TIAR to develop future traffic volumes are too low. These existing counts were gathered in October 2010 during low tourist season and after the Great Recession of 2008. The TIAR states Honoapi`ilani Highway south of the project site carried 22,840 vehicles per day in October 2010. In contrast, this roadway west of the Pali tunnel is shown as carrying 24,422 ADT in Year 2003 in the Proposed Roadway Development Program prepared for the County of Maui Planning Department for the draft Maui Island Plan.

Traffic from other known projects in the area, such as Ukumehame, and traffic from other reasonably foreseeable projects were not assumed in the future analysis.

Additionally, it cannot be confirmed whether the 1% annual growth factor used in the TIAR to estimate future volumes on Honoapi`ilani Highway is reasonable, since no

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supporting data was provided showing how the 1% annual growth factor was determined.

#### Response:

According to the TIAR, due to the isolated nature to the site, with long travel distance to other populated areas on the island, it is less likely that residents on other parts of the island would make special trips to Olowalu Town for employment, shopping opportunities, or other services that could be found closer to their respective home region. However, a significant number of trips that will be made to and from Olowalu Town that are not generated within Olowalu Town will be from travelers already on Honoapi`ilani Highway or "pass-by or diverted trips".

An analysis of trip length frequency curves from the Maui Long Range Transportation Plan (LRTP) was made to assist in estimating the amount of "pass-by" trips that would have destinations or origins in Olowalu Town that would already be on the highway. Table 2 of the Preliminary TIAR (Appendix "M" of the Draft EIS) estimated the proportion of "pass-by and diverted" trips. The traffic consultant affirms that based on this methodology and assumption set, the results of the pass-by and diverted linked trips are appropriate.

• The Preliminary TIAR does indicate the rationale for the annual growth rate. Based on a review of current data provided by the HDOT, an annual traffic volume growth rate of approximately one (1) percent was used for Honoapi`ilani Highway resulting in a total growth rate of eight (8) percent between 2011 and full buildout of the OTMP. This eight (8) percent growth rate was applied to the existing volumes on Honoapi`ilani Highway to derive future year traffic volumes without the OTMP project in place. The Final TIAR utilized a nine (9) percent growth rate applied to traffic counts obtained in 2013. The Final TIAR estimated the background growth rate would be eleven (11) percent from 2013 to full buildout in 2024.

#### Comment:

As an example demonstrating how the future volumes are underestimated in the TIAR, the future volumes estimated on Honoapi`ilani Highway south of the project site in the TIAR without project traffic is 24,670 ADT, but this roadway segment is shown to carry 24,422 in 2003 in the Proposed Roadway Development Program prepared for County of Maui Planning Department for the draft Maui Island Plan. (See Attachment B.) This is an increase of only 248 vehicles on Honoapi`ilani Highway in 17 years.

It should also be noted that the TIAR indicates that Honoapi`ilani Highway south of the project site would operate at level of service (LOS) E at full build out of the project, but the Proposed Roadway Development Program shows this segment to be failing in the peak hour in Year 2003.

Using professionally accepted standards, we estimate that the proposed project would add about 12,000 ADT to Honoapi`ilani Highway north of the project site and about 8,000 ADT to Honoapi`ilani Highway south of the project site. This is more than three times the amount of project traffic estimated in the TIAR. Honoapi`ilani cannot accommodate this much added traffic.

The TIAR should be revised to use nationally recognized and accepted methodologies for determining project trip generation and analyzing transportation impacts. When this is done, it will be clear that the Olowalu Master Plan would have significant impacts to Honoapi'ilani Highway.

#### Response:

The transportation consultant concurs that the 2010 ADT is below historical data collected in 2003 which is outdated and conditions affecting traffic have occurred since then in which traffic volumes have declined. However, the annual traffic volume growth rate accommodate for these changes in traffic conditions. For this reason, the transportation consultant concludes that the traffic counts derived in the Preliminary TIAR are reliable and appropriate. It is noted that as the project progresses through the entitlement process, updated TIARs with updated traffic counts will be prepared. As noted previously, a Final TIAR has been prepared with updated traffic counts. Refer to **Exhibit "1"**.

The preliminary TIAR does not include a review of the methodology used in developing the referenced Proposed Roadway Development Program. We do not know how that study developed the referenced future volumes as compared to our analysis. Again, the preliminary TIAR did not include any peak hour analysis. However, the Final TIAR based on the 2013 traffic counts determined 7:00 to 8:00 a.m. and 4:00 to 5:00 p.m. as the peak hours of traffic.

The preliminary TIAR did use ITE rates (modified based on the site development plan) and reasonable internal capture estimates based on the town plan. The Final TIAR has been completed. Refer to **Exhibit "1"**. As noted previously, as the project progresses and further refinements to the development are made updated TIARs will be prepared.

## Comment:

## Potential Substantial Affects on Public Health Not Disclosed or Discussed:

Traffic safety impacts to Honoapi`ilani Highway from the development of the proposed Olowalu project were not addressed. Honoapi`ilani Highway would be heavily congested with stopped queues of vehicles, and there would be fewer gaps for vehicles to turn into. Consequently, there would be an increased potential for a higher accident rate along this highway.

Additionally, the proposed "O-turns" along Honoapi`ilani Highway may also compromise public safety. Therefore, the DEIS should evaluate and discuss:

The potential increase in vehicular accidents on Honoapi`ilani Highway caused by the weaving and merging maneuvers of O-turns.

The potential increase in pedestrian and bicycle accidents on Honoapi'ilani Highway since pedestrians would not be provided a safe crossing as would be provided by traffic signals. The DEIS should address how pedestrians and bicyclists will be prevented from crossing Honoapi'ilani Highway.

## Response:

Regarding the proposed "O-turns" along the realigned and widened Honoapi`ilani Highway, extensive discussions have been conducted with the HDOT. Although not used in Hawaii, the HDOT is aware that "O-turns" are extensively used in Michigan and other areas of the country. There is substantial evidence that the use of "O-turns" which allows the free flow of traffic has safety benefits over traditional intersection design. Bike and pedestrian crossings from one side of the highway to the other will be made via grade separated connections under the anticipated bridge structures. As requested by HDOT, the Final TIAR analyzes the proposed intersections with "O-Turns" and with traditional traffic signals. Refer to **Exhibit "1"**.

We agree that traffic safety must be addressed as implementation of the OTMP proceeds. Specificity in traffic safety measure will be identified in coordination with the HDOT. It is noted that internal pedestrian and bicycle routes within the OTMP are intended to provide pedestrians and bicycle mobility separate from the highway, thereby providing a significant measure of public safety. The locations, alignments and geometric configurations for these measures will be developed as part of the project implementation phase of development. With respect to pedestrian and bicycle crossings from one side of the highway to the other, We envision grade separated connections, as may be permitted, for example the Olowalu Cultural Reserve (OCR) bridge crossing.

## Comment:

## Phased Analysis Not Provided:

The DEIS indicates in many places that the project would be developed in phases spread out over a period of approximately 10 years. However, only one scenario, Full Buildout Year 2020, was analyzed in TIAR. The TIAR should be revised to include an analysis of each phase of the project; otherwise, the DEIS does not comply with Hawaii Administrative Rules (HAR) Section 11-200-17 I which states that a DEIS, " ... shall include a statement of the probable impact of the proposed action on the environment, and impacts of the natural or human environment on the project, which shall include consideration of all phases of the action and consideration of all consequences of the environment; direct and indirect effect shall be included."

It should also be noted that the internal capture rate of the project would vary with different phases of the development. For example, if the residential phase of the project were to be constructed first with no commercial, then the project's internal capture rate would be zero. This variation in internal capture rate by phase should be accounted for in the analyses.

## Response:

Pursuant to Hawaii Administrative Rules (HAR) Section 11-200-17, the 10-year buildout scenario analyzed in the TIAR considers the project in totality. It addresses the probable impact of the total proposed development on the environment and impacts on the natural or human environment on the project. However, in consultation with HDOT a Final TIAR has been prepared. Refer to **Exhibit "1"**. Additionally, as may be required by HDOT, TIAR updates will be prepared over the course of project development. HDOT requires updates once every three (3) years.

Regarding your comments on the internal capture rate, the intent is to construct the town center and residential units as a unified phase which would ensure relative stability over time in the internal capture rate identified in the TIAR. As the plan progresses, monitoring of the internal capture rate will be conducted and adjusted accordingly, as necessary.

#### Comment:

### Other Specific Comments to the DEIS:

<u>Comment 1.</u> The DEIS should provide more details to support its claim that the proposed project is a smart growth development. For example, it should describe what specific design features would be incorporated to ensure the development is a

pedestrian & bicycle friendly community. Specifically, the DEIS should describe whether roadways within the project site would provide non contiguous sidewalks, street trees, and traffic calming features such as bulb-outs, road humps, traffic circles. The DEIS should also describe what type of bicycle amenities (e.g. bicycle racks, lockers, showers, bicycle corrals) and bicycle facilities (e.g. bicycle paths, bicycle lanes) would be provided to ensure the site is a bicycle friendly community.

## Response:

The OTMP proposes to follow the Leadership in Energy and Environmental Design (LEED) Neighborhood Development recommended standards to accomplish "Smart Growth". See Appendix "A-1" of the DEIS. Olowalu Town is master planned to incorporate LEED criteria that meet its goal of creating a community that follow the Hawaiian ahupua'a system of land management where people co-exist with nature. See pp 12-15, Draft EIS.

While specific standards of development are generally identified at the more detailed project design stage of development, we are committed to LEED principles and anticipate incorporating measures such as bicycle amenities, traffic calming measures, and noncontiguous sidewalks.

# Comment:

<u>Comment 2.</u> The DEIS should state the "Purpose and Need" for the proposed action as required by HAR Section 11-200-17 D. The DEIS only states the project's need (which the DEIS states is to increase the supply of housing for Maui residents) but does not state the project's purpose. Without a statement of purpose, it is impossible to identify reasonable alternatives since reasonable alternatives are those that substantially meet both the purpose and the need.

## Response:

As noted in the Draft EIS, OTMP is to provide needed resident housing as a sustainable community following appropriate LEED standards incorporated within the Hawaiian ahupua`a system of land management.

# Comment:

<u>Comment 3</u>. A reduced project alternative should be proposed, since a reduced project alternative may have fewer impacts to Honoapi'ilani Highway.

#### Response:

The Alternatives Analysis has been revised to include the MIP Alternative which removed the lands makai of Honoapi`ilani Highway from the Directed Growth Map. See **Exhibit "2"**. This Alternative is the reduced project alternative. Further, a planned sustainable community Olowalu Town encourages residents to use alternative modes of travel, such as walking and bicycling, to reduce traffic rather than your suggested approach that less densities creates less traffic. Olowalu Town is planned where centers of activities such as shopping, employment, public services and recreation are conveniently planned to be within a five (5) minute walk of residences to encourage people to walk rather than use an automobile for their daily needs.

## Comment:

<u>Comment 4.</u> The TIAR conclusions are contingent on specific land uses with precise square footage being constructed on the proposed project site. The DEIS should indicate how it would be assured that these land uses, and their square footages, would be constructed.

## Response:

Throughout implementation of the Master Plan, several TIARs will be prepared with increasing specificity as site specific plans are developed. As these reports are prepared, they will include updated analyses of the specific land uses with precise square footage being constructed. Beyond the Draft EIS, opportunity will be given throughout the implementation process for public review and comment of the updated TIARs.

## Comment:

Comment 5. Should the Olowalu Master Plan be approved, the project should be conditioned to construct development not to exceed the ADT, a.m. peak-hour inbound trips, a.m. peak-hour outbound trips, p.m. peak-hour inbound trips, and the p.m. peak-hour outbound trips evaluated in the Final TIAR. Additionally, these thresholds should be tracked as the project site is developed. If the project site were to generate more traffic than assumed and analyzed in the Final TIAR, then the project could have other traffic impacts not disclosed to the approving agency in the Master Plan's FEIS.

## Response:

One of the key purposes of the TIAR in the land use entitlement process is to ensure that project-related impacts are mitigated by the proposing entity in a manner which is deemed relational and fair. Project development and accompanying traffic analysis are

considered process-based; that is, they must examine conditions on an ongoing basis and provide current assessments and applicable mitigation measures at the time of development implementation. For this reason, it is expected that updated TIARs will be required over the course of project implementation. As circumstances warrant, the HDOT will require that we adhere to appropriate performance and mitigation conditions. For this reason, we have, and will continue working with the HDOT during the various stages of the land use entitlements process to ensure that HDOT requirements are appropriately addressed.

## Comment:

<u>Comment 6.</u> The DEIS should discuss the effects of construction traffic on Honoapi'ilani Highway.

## Response:

Construction-related impacts are expected to include traffic delays and temporary detours to accommodate construction procedures. The specific nature of these impacts, however, will be determined as construction plans are prepared, and traffic safety and mitigation measures can be identified based on the construction locations, surrounding roadway systems, and the proposed scope of construction activities. Construction plans will be reviewed by the HDOT. Mitigation measures anticipated to be incorporated in these plans would include Best Management Practices for erosion control and traffic safety plans. Other mitigation measures generally associated with roadway construction activities include procedures for public notification and procedures for coordination with local authorities having emergency response responsibilities.

#### Comment:

<u>Comment 7.</u> The DEIS should discuss the effect the proposed O-turns would have on pedestrian connectivity mauka and makai of Honoapi'ilani Highway.

# Response:

As noted previously, pedestrian and bicycle crossings from one side of the highway to the other is proposed via grade separated connections under the anticipated bridge structure(s), primarily through the OCR. As a sustainable community a comprehensive pedestrian and bicycle circulation system will be developed for the OTMP which proposes to incorporate open space and park areas.

### Comment:

<u>Comment 8.</u> A Transportation Demand Management Plan (TDM) should be provided by this project in an effort to meet the goals and objectives of the Maui General Plan. The DEIS should provide a discussion of this TDM Plan.

## Response:

As noted previously, as the project progresses through the numerous processes and refinements to the development are made updated TIARs as required by HDOT will be prepared as well as a Transportation Demand Management Plan (TDM) at the appropriate time of development as determined by HDOT.

## Comment:

Specific Comments to the TIAR:

<u>Comment 1.</u> Page 1, Introduction, Purpose and Methodology: The TIAR states the TIAR utilizes data from several other TIARs which have been done for other projects on the west side of Maui over the last five years. The TIAR should specifically name which reports it utilized.

### Response:

The project sources referenced on Page 1 of the Preliminary TIAR has been included in the Final TIAR. Refer to **Exhibit "1"**.

#### Comment:

<u>Comment 2.</u> Page 1, Introduction, Purpose and Methodology: The TIAR states the TIAR uses information from studies done by Maui County. The TIAR should name which studies it utilized.

#### Response:

The County sources referenced on Page 1 of the Preliminary TIAR has been included in the Final TIAR. Refer to **Exhibit "1"**.

#### Comment:

<u>Comment 3.</u> Page 1, Introduction, Purpose and Methodology: The TIAR states, "The Final TIAR will address peak hour traffic flows and utilize the methods that are normally employed in standard traffic assessments. That TIAR will also analyze in detail the

predicted traffic operations at the access points to Honoapi'ilani Highway. It will assess the need for any mitigation and analyze the need for traffic control measures and devices that may be required for proper functioning of the street system. This preliminary report will not cover all items that may be studied and analyzed in the future detailed TIAR and it is not intended to substitute for that more comprehensive analysis." The TIAR provided in this DEIS should provide a full analysis to determine significant impacts of the proposed project, and these impacts should be disclosed to the public during the public review period.

## Response:

As noted previously, the Final TIAR determined peak hour traffic and an assessment of the proposed intersections. Refer to **Exhibit "1"**. Further, as the project progresses through the numerous processes refinements to the development will be made and updated TIARs will be prepared in coordination with the HDOT. These subsequent processes will allow for public review and disclosure.

### Comment:

<u>Comment 4.</u> Page 2, Introduction, Purpose and Methodology: The TIAR states that the level of analysis in the TIAR does not include detailed analysis of all traffic movements at individual intersections. The TIAR provided in this DEIS should provide a full analysis to determine significant impacts of the proposed project, and these impacts should be disclosed to the public during the public review period.

#### Response:

As noted previously, a Final TIAR has been prepared with an assessment of the proposed intersections. Refer to **Exhibit "1"**. As the project progresses, updated TIARs will be prepared in coordination with the HDOT, as well as the Department of Public Works (DPW). As appropriate and as the hierarchy of roads are developed, detailed analysis of traffic movements at individual intersections will be included in the updated TIARs. The public will have the opportunity to review the updated TIARs during the subsequent public review processes.

#### Comment:

<u>Comment 5.</u> Page 2, Introduction, Purpose and Methodology: The TIAR states that the TIAR is intended to illustrate that the increase in vehicular traffic along the Honoapi`ilani Highway attributed to Olowalu Town will be successfully mitigated by way of implementing the proposed transportation plan and the related improvements, including the relocation and widening of the segment of Honoapi`ilani Highway which traverses

the subject property. Clarify in this section of the TIAR what is specifically meant by the "proposed transportation plan."

#### Response:

The "proposed transportation plan" refers to the future widening and relocation of Honoapi`ilani Highway further inland within the OTMP as well as the HDOT's plan for the relocation and widening of Honoapi`ilani Highway (Maalaea to Launiupoko) towards Lahaina.

## Comment:

<u>Comment 6</u>. Page 3, Description of Olowalu Town: The first paragraph of this section should describe how much square footage of office and how much square footage of commercial retail is proposed by this project rather than just describing the number of dwelling units proposed.

## Response:

Page 8 of the Preliminary TIAR (Appendix "M" of DEIS) includes a table summarizing the land uses proposed for the OTMP. In addition to the number of residential units, the table includes the square footage of the proposed office and commercial uses. Approximately 15,000 square feet (sq. ft.) of government offices; 60,000 sq. ft. of general office space; 239,000 sq. ft. of commercial retail space and 5,000 sq. ft. of public (post office) space are proposed.

### Comment:

<u>Comment 7.</u> Page 3, Description of Olowalu Town: The TIAR states the design of Olowalu Town incorporates smart growth principles. One of the 10 accepted principles that define Smart Growth is to create walkable neighborhoods. The TIAR should describe specific examples of design features that would be incorporated to create walkable neighborhoods.

#### Response:

The project is at the preliminary stage of the numerous processes. As it progresses more specificity in project development will occur. As appropriate, specific examples of design features to create walkable neighborhoods will be discussed in updated TIARs.

## Comment:

<u>Comment 8.</u> Page 8, Figure 5, Summary of Trip Generation for Olowalu Town: For ITE Code 730, Government Office Building, the proper trip rate per unit is 68.93 trips per 1,000 sf; therefore, the estimated traffic generated by that component of the site is of 1034 trips. Therefore, the total traffic generated by the site would be 33,655 ADT rather than the 32,800 ADT shown in the table. Revise the TIAR and its analyses accordingly.

## Response:

As noted previously, the Final TIAR estimated the ADT in the OTMP would be 31,250 to 34,220 vehicles at the three (3) proposed intersections at full buildout.

## Comment:

<u>Comment 9.</u> Page 10, Background Traffic Growth: The TIAR states that several studies were made available which analyzed traffic growth trends on Honoapi`ilani Highway and that these studies are included in the appendices. However, this data was not included in the appendices. This data should be included in an appendix.

## <u>Response:</u>

As noted previously, the studies referenced in the Preliminary TIAR have been included in the Final TIAR.

#### Comment:

<u>Comment 10.</u> Page 10, Background Traffic Growth: In determining future volumes for the Year 2020 analysis, other reasonably foreseeable development project traffic be added to Honoapi'ilani Highway in addition to using an appropriate growth rate based on historical data.

## Response:

According to the transportation consultant, due to the uncertainty of when developments would come on line, a single background growth rate was utilized in the TIAR.

## Comment:

<u>Comment 11.</u> Page 10, Background Traffic Growth: Provide a copy of the existing count data for Honoapi`ilani Highway in the appendix of the TIAR.

## Response:

Updated traffic count data has been included in the Final TIAR. Refer to Exhibit "1".

### Comment:

<u>Comment 12.</u> Page 10, Background Traffic Growth: Existing counts on Honoapi`ilani Highway were taken during October 2010 during low tourist season. However, existing counts should be taken during peak tourist season.

## Response:

The Final TIAR traffic counts were taken during 2013. Refer to Exhibit "1".

## Comment:

Comment 13. Page 10, Background Traffic Growth: The 24,667 ADT assumed on Honoapi`ilani Highway in Year 2020 is only 248 ADT more than existed in Year 2003 per the Proposed Roadway Development Program prepared for County of Maui Planning Department for the draft Maui Island Plan. Provide an explain why only 248 more vehicles per day would be expected to use Honoapi`ilani Highway in Year 2020.

# Response:

Access to the methodology used in the study was not available for comparison. However, as noted previously, a Final TIAR has been prepared. Refer to **Exhibit "1"**.

#### Comment:

<u>Comment 14.</u> Page 10, Traffic Analysis in Year 2020 without Olowalu Town Project: HighPlan software is not appropriate to use to determine the capacity and level of service of Honoapi`ilani Highway, since it has beach access points and driveways to scenic lookouts, and therefore should not be considered an uninterrupted flow highway.

#### Response:

According to the transportation consultant, use of the HighPlan software is appropriate since beach and scenic lookouts are rarely accessed in the a.m. and p.m. peak hours. In this context, the transportation consultant has concluded that Honoapi`ilani Highway functions as a highway with limited access. However, the TIAR provides operational data for comparison to intersections on arterial streets.

### Comment:

<u>Comment 15.</u> Page 11, Figure 6, Output from Highplan Software for Honoapi`ilani Highway for Year 2020 without Project in Place:

Clarify why the output sheet says "yes" under median type.

Clarify why the output sheet says "no" under left turn impact when no left turn pockets are provided for the beach access points or scenic outlooks.

The assumed maximum capacity at LOS E of 1500 vehicles per hour per lane (vphpl) is too high. Per the FDOT 2009 Quality/Level of Service Handbook which provides guidance on using the FDOT software, the maximum capacity at LOS E should be assumed to be 850 vphpl. (See Attachment C). It should be noted that agencies in southern California assume much lower capacities for roadways constructed and functioning similar to Honoapi'ilani Highway. As an example, the County of San Diego assigns the capacity of 16,200 ADT to a two-lane rural facility. (See Attachment D).

## Response:

According to the transportation consultant, Honoapi ilani Highway does not function as a rural two-lane facility. It is a much higher design type with almost no passing, and few access points, and with a left turn lane design that approximates median and wide shoulders, it operates much like an uninterrupted facility.

#### Comment:

Comment 16. Page 12, Traffic Generation for Olowalu Town: The TIAR takes a 15% reduction in trip generation to account for walking and bicycling within the project site and cites other local governments such as the City of Frederick, Maryland as allowing this as well. However, the reduction allowed by the City of Frederick includes walking, bicycling, and internal capture. (See Attachment E). Therefore, using the City of Frederick as an example is not correct and this reference (as well as the associated page included in Appendix 4 of the TIAR) should be removed from the TIAR.

# Response:

The transportation consultant notes that the 15 percent reduction in the Preliminary TIAR is indicative that the town will have many pedestrian oriented trips and that the residents will want a community that relies less on the automobile. The 85 percent value was selected to reflect this assumption set. Town residents are expected to travel about 15 percent less by motor vehicle than the national average, owing to the sustainable design of the town. The Final TIAR utilized a project recommended 64/36 percent

internal capture rate and a HDOT 25/75 percent internal capture rate. Refer to Appendix 8 in **Exhibit "1"**.

### Comment:

<u>Comment 17.</u> Page 12, Traffic Generation for Olowalu Town: Reducing the ITE trip generation rate by 15% for walking and bicycling is not appropriate. The internal capture rate already accounts for this reduction.

## Response:

According to the transportation consultant internal capture and community capture rates are two different rates.

### Comment:

<u>Comment 18.</u> Page 12, Traffic Generation for Olowalu Town: The TIAR states that based on the anticipated plan for the proposed project, the TIAR determined that significant proportions of total travel could and would be made within the town itself, without any requirement to travel on Honoapi`ilani Highway to Lahaina, Ma`alaea or elsewhere on the island. Please clarify how this statement can be supported since:

Facilities such as schools, a library, and a post office are not assured but require public funds to be constructed and/or operated.

There is no assurance that the Olowalu Master Plan would provide land uses to serve all residents day to day needs such as a grocery store, pharmacy, and restaurants.

The proposed project would not provide enough jobs for all its residences.

# Response:

As a sustainable community, the OTMP includes uses for shopping, employment, public services and recreation that is expected to reduce the daily commute outside of Olowalu. The project is anticipated to take 10 years for full build-out which will allow the employment and shopping uses to be established as well as public agencies to plan and fund necessary public facilities and services. The development time frame will also allow the developer to investigate opportunities for private-public partnerships to fund public facilities.

During the initial development phases of Olowalu Town, it is expected that the need to commute will be greater than at full buildout as employment, shopping, public facilities and recreation are developed. At full buildout, the project does not expect to provide

employment for all its residents and there will be commutes outside of Olowalu Town to employment centers although it may reduce the commute distance and time for these employees. The Preliminary and Final TIARs account for external travel by these employees.

Olowalu Town is proposed as a Project District in which land use standards as well as conditions may be imposed by approving agencies to ensure that Olowalu Town is developed in accordance with representations made by the applicant including the applicant's intent to develop residential units concurrent with necessary public infrastructure and services.

#### Comment:

Comment 19. Page 12, Traffic Generation for Olowalu Town: The amount of internal capture rate assumed by the TIAR should be calculated using worksheets in the ITE Trip Generation Handbook, 2nd edition, and completed worksheets should be provided in an appendix of the TIAR. Alternatively, the methodology outlined in the NCHRP Report 684, Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, by the Transportation Research Board of the National Academies could be used although its researchers do not recommend its use on sites over 300 acres. (See Attachment F).

## Response:

The transportation consultant noted that the OTMP is not a "standard" mixed use development, but instead is a town that can stand alone for many of its needs, such as shopping, employment, public services and recreation. Behavioral response to contextual factors such as density, diversity, design, and regional accessibility is expected to influence travelers' trip-making decisions such as walking and biking to these services rather than traveling by automobile. The typical ITE methodology is not necessarily applicable because there are several proposed land uses not included in current ITE methodology. Also, the ITE method does not address a new town, but are geared toward multi-use developments in existing urban and suburban areas. As such, the TIAR uses a methodology appropriate to the OTMP. Refer to Appendix 8 in **Exhibit** "1"

#### Comment:

<u>Comment 20.</u> Page 12, Traffic Generation for Olowalu Town: The TIAR states that due to the design of the town and its street network, many of the trips within the town will likely be made via walking or cycling and not require use of the automobile. This element will be addressed in detail in the final TIAR. This element of the TIAR should be addressed in the DEIS rather than the FEIS.