16. State of Hawaii, Department of Health, Maui District Health Office

DAVID Y. IGE
GOVERNOR OF HAWAII

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

LORRIN W. PANG, M.D., M.P.H.
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, HAWAII 96793-3378

March 8, 2016

Mr. Michael Summers
President
Planning Consultants Hawaii, LLC
2331 West Main Street
Wailuku, Hawaii 96793

Dear Mr. Summers:

Subject: Waikapu Country Town Draft Environmental Impact Statement (DEIS)

Thank you for the opportunity to review this project. We have the following comments to offer:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage may be required for this project. The Clean Water Branch should be contacted at 808 586-4309.

2. The project is located in the critical wastewater disposal area as determined by the Maui County Wastewater Advisory Committee. The project must connect to the County sewer. In the event that the County sewer is not available for the proposed project to connect to, any new proposed wastewater treatment plant shall be designed and constructed in accordance with applicable provision of Hawaii Administrative Rules (HAR), Chapter 11-62, Wastewater Systems.

   Please be informed that the proposed wastewater system for the subdivision/development may have to include predesign consideration to address any effects associated with the construction of and/or discharges from the wastewater system to any public trust, Native Hawaiian resources or the exercise of traditional cultural practices. If you have any questions, please call Roland Tejano, Environmental Engineer, at 808 984-8232.

3. All lands formerly in the production of sugarcane and/or pineapples should be characterized for arsenic contamination. If arsenic is detected above the US EPA Region Preliminary Remediation Goal (PRG) for non-cancerous effects, then a removal and/or remedial plan must be submitted to the Hazard Evaluation and Emergency Response (HEER) Office of the State Department of Health for approval. Please contact them at 808 586-4249.

4. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control." A noise permit may be required and should be obtained before the commencement of work. Please call the Indoor & Radiological Health Branch at 808 586-4700.

It is strongly recommended that the Standard Comments found at the Department's website: http://health.hawaii.gov/epo/home/landuse-planning-review-program/ be reviewed and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please contact me at 808 984-8230.

Sincerely,

Patti Kitkowski

Patti Kitkowski
District Environmental Health Program Chief

c EPO
Daniel Orodenker, DBEDT

PLANNING
CONSULTANTS
HAWAII, LLC
URBAN & REGIONAL PLANNING

Land Use Planning • Sustainability Services • Community Planning • Development Permits

December 12, 2016

Ms. Patti Kitkowski
District Environmental Health Program Chief
State of Hawaii
Department of Health
Maui District Health Office
54 High Street
Wailuku, Hawaii 96793-3378

Dear Ms. Kitkowski:

Re: **Draft Environmental Impact Statement** Prepared for the Proposed Waikapu Country Town Project in Waikapu, Maui, Hawaii; TMK Nos: (2) 3-6-002:001, (2) 3-6-002:003, (2) 3-6-4:003, (2) 3-6-004:006, (2) 3-6-005:007 and (2) 3-6-006:036.

Thank you for your letter dated March 8, 2016, regarding the Draft Environmental Impact Statement (DEIS) prepared for the above-referenced project. In response to your comments, please find the following:

- ***National Pollutant Discharge Elimination System (NPDES) Permit.*** The Applicant is aware that an NPDES permit will be required for development of the project site. The Clean Water Branch will be consulted as part of this process.
- ***Critical Wastewater Disposal Area.*** The Applicant is aware that a portion of the project site lies within the Critical Wastewater Disposal Area. Moreover, the Applicant understands that the proposed wastewater treatment plant must be designed and constructed in accordance with Hawaii Administrative Rules (HAR), Chapter 11-62, Wastewater Systems. The Applicant further acknowledges that the facility may be subject to a predesign review to address any potential impacts from construction and or

2331 West Main Street, Wailuku, HI 96793 • Ph. 808-244-6231
msummers@planningconsultantshawaii.com

discharges to any public trust, Native Hawaiian Resources or the exercise of traditional cultural practices. However, note that the FEIS will address the proposed facilities impacts, if any, upon such resources.

- ***Arsenic Contamination.*** The applicant is aware that former sugarcane and pineapple lands should be assessed for arsenic contamination. Should arsenic be found to be detected above the US EPA Region Preliminary Remediation Goal for non-cancerous effects, a removal plan will be submitted to the Hazard Evaluation and Emergency Response Office of the State Department.

- ***Construction Phase Noise.*** The Applicant will comply with the requirements of Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control" and all required permits will be obtained prior to commencement of work. Section V.A.3 of the FEIS documents the Project's potential noise impacts and mitigation measures.

The WCT's Final Environmental Impact Statement (FEIS) can be downloaded from the State Office of Environmental Quality Control's (OEQC's) website and the State Land Use Commission's website. The document may also be downloaded from www.waikapu.com. Thank you very much for your interest in this important Central Maui project. Should you have any questions, please contact me at (808) 269-6220 or by e-mail at msummers@planningconsultantshawaii.com.

Sincerely yours,

Michael J. Summers
President

Attachment
c: Mr. Michael Atherton
Mr. Albert Boyce

17. State of Hawaii, Department of Health, Wastewater Branch

DAVID Y. IGE
GOVERNOR OF HAWAII

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

LUD – 2 3 6 002 001 DEIS
Waikapu Country Town-ID2634

February 12, 2016

Mr. Daniel E. Orodenker, Executive Director
State Land Use Commission
Dept. of Business, Economic Development & Tourism
235 South Beretania Street Suite 406
Honolulu, Hawaii 96813

Dear Mr. Orodenker:

Subject: Draft Environmental Impact Statement (DEIS) for the Waikapu Country Town, located within and around the Maui Tropical Plantation, Wailuku, Maui, Hawaii
TMK (2) 3-6-002: 001, (2) 3-6-002: 003, (2) 3-6-004: 006, (2) 3-6-005: 007 and (2) 3-6-006: 036

Thank you for allowing us the opportunity to provide comments on the above subject project.

We have the following comments to offer.

The subject project is located in the critical wastewater disposal area as determined by the Maui County Wastewater Advisory Committee. As a connection to the Kahului Wastewater Reclamation Facility (KWRF) may not be available for the project, any new proposed wastewater treatment plant shall be designed and constructed in accordance with applicable provisions of Hawaii Administrative Rules, Chapter 11-62, "Wastewater Systems".

Please be informed that the proposed wastewater system for the development may have to include design considerations to address any effects associated with the construction of and/or discharges from the wastewater systems to any public trust, Native Hawaiian resources or the exercise of traditional cultural practices.

Mr. Daniel E. Orodenker, Executive Director
State Land Use Commission
February 12, 2016

Should you have any questions, please contact Mark Tomomitsu at 586-4294.

Sincerely,

SINA PRUDER, P.E., CHIEF
Wastewater Branch

LM/MST:lmj

c: Ms. Laura McIntyre, DOH-Environmental Planning Office, via email
Mr. Roland Tejano, DOH-WWB's Maui Staff, via email
Mr. Michael Summers, Planning Consultants Hawaii, LLC
Mr. Michael Atherton, Waikapu Properties, LLC

PLANNING
CONSULTANTS
HAWAII, LLC
URBAN & REGIONAL PLANNING

Land Use Planning • Sustainability Services • Community Planning • Development Permits

December 12, 2016

Ms. Sina Pruder, P.E.
Chief, Program Manager
Wastewater Branch
State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Dear Ms. Pruder:

Re: **Draft Environmental Impact Statement** Prepared for the Proposed Waikapu Country Town Project in Waikapu, Maui, Hawaii; TMK Nos: (2) 3-6-002:001, (2) 3-6-002:003, (2) 3-6-4:003, (2) 3-6-004:006, (2) 3-6-005:007 and (2) 3-6-006:036.

Thank you for your letter dated February 12, 2016, regarding the Draft Environmental Impact Statement (DEIS) prepared for the above-referenced project. The Applicant acknowledges that the portion of the Project located mauka (west) of Honoapiilani Highway is located within a critical wastewater disposal area. The portion of the Project that is located makai (east) of Honoapiilani Highway is below the critical wastewater disposal area.

The Applicant's proposed wastewater treatment facility will be designed and constructed in accordance with the provisions of Hawaii Administrative Rules, Chapter 11-62, "Wastewater Systems". The applicant also understands that design changes may be required if the system discharges wastewater that impacts any public trust resource, Native Hawaiian resources or the exercise of traditional cultural practices.

The WCT's Final Environmental Impact Statement (FEIS) can be downloaded from the State Office of Environmental Quality Control's (OEQC's) website and the State Land Use Commission's website. The document may also

2331 West Main Street, Wailuku, HI 96793 • Ph. 808-244-6231
msummers@planningconsultantshawaii.com

be downloaded from www.waikapu.com. Thank you very much for your interest in this important Central Maui project. Should you have any questions, please contact me at (808) 269-6220 or by e-mail at msummers@planningconsultantshawaii.com.

Sincerely yours,

Michael J. Summers
President

Attachment
c: Mr. Michael Atherton
Mr. Albert Boyce

18. State of Hawaii, Department of Transportation, Airports Division

DAVID Y. IGE
GOVERNOR

FORD N. FUCHIGAMI
DIRECTOR

Deputy Directors
JADE T. BUTAY
ROSS M. HIGASHI
EDWIN H. SNIFFEN
DARRELL T. YOUNG

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
STP 8.1968

May 18, 2016

TO: THE HONORABLE LUIS P. SALAVERIA, DIRECTOR
DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT
AND TOURISM

ATTN: DANIEL ORODENKER, EXECUTIVE OFFICER
LAND USE COMMISSION

FROM: FORD N. FUCHIGAMI
DIRECTOR OF TRANSPORTATION

SUBJECT: WAIKAPU COUNTRY TOWN
DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
WAIKAPU, MAUI, HAWAII
TMK: (2) 3-6-002:001 and 003, 3-6-004:003 and 006, 3-6-005:007
and 3-6 006:036

Our Department of Transportation's (DOT) comments on the subject project are as follows:

Airports Division (DOT-AIR)

1. Federal Aviation Administration (FAA) Advisory Circular 150/5200-33B, Hazardous Wildlife Attractants On or Near Airports (copy attached), recommends a distance of five (5) statute miles between the farthest edge of the airfield's Air Operations Area and land use activities that could attract hazardous wildlife movement into or across aircraft approach or departure space. The subject project is of concern because it is within five (5) statute miles from Kahului Airport (OGG).

2. According to an earlier illustration of the Waikapu County Town Master Plan, several existing plantation reservoirs were identified as detention basins. To prevent the attraction of hazard wildlife, the FAA recommends that stormwater detention ponds be designed, engineered, constructed, and maintained for a maximum 48-hour detention period after the design storm and remain completely dry between storms.

3. According to the DEIS, solar farms/photovoltaic (PV) systems may be installed. PV systems can create a hazardous condition for a pilot due to possible glint and glare reflected from the PV array. If glint or glare from the PV array creates a hazard condition for pilots, the applicant must be prepared to immediately mitigate the hazard, upon notification by the DOT Airports Division or the FAA. The following website may assist the applicant with preparation of a glint and glare analysis in order to minimize any potential hazard: www.sandia.gov/glare.

4. The project lies within the approach surface to the Kahului Airport and will be subject to aircraft overflights and noise.

Highways Division (DOT-HWY)

HWY is still reviewing the subject project. Supplemental comments will be sent as soon as the review is completed.

If there are any questions, please contact Mr. Norren Kato of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Attachment: FAA Advisory Circular 150/5200-33B

c: Michael J. Summers, Planning Consultants Hawaii, LLC

U.S. Department
of Transportation

**Federal Aviation
Administration**

Advisory Circular

Subject: HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS	**Date:** 8/28/2007	**AC No:** 150/5200-33B
	Initiated by: AAS-300	**Change:**

1. PURPOSE. This Advisory Circular (AC) provides guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. It also discusses airport development projects (including airport construction, expansion, and renovation) affecting aircraft movement near hazardous wildlife attractants. Appendix 1 provides definitions of terms used in this AC.

2. APPLICABILITY. The Federal Aviation Administration (FAA) recommends that public-use airport operators implement the standards and practices contained in this AC. The holders of Airport Operating Certificates issued under Title 14, Code of Federal Regulations (CFR), Part 139, Certification of Airports, Subpart D (Part 139), may use the standards, practices, and recommendations contained in this AC to comply with the wildlife hazard management requirements of Part 139. Airports that have received Federal grant-in-aid assistance must use these standards. The FAA also recommends the guidance in this AC for land-use planners, operators of non-certificated airports, and developers of projects, facilities, and activities on or near airports.

3. CANCELLATION. This AC cancels AC 150/5200-33A, *Hazardous Wildlife Attractants on or near Airports*, dated July 27, 2004.

4. PRINCIPAL CHANGES. This AC contains the following major changes, which are marked with vertical bars in the margin:

a. Technical changes to paragraph references.

b. Wording on storm water detention ponds.

c. Deleted paragraph 4-3.b, *Additional Coordination.*

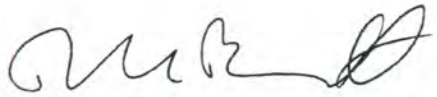
5. BACKGROUND. Information about the risks posed to aircraft by certain wildlife species has increased a great deal in recent years. Improved reporting, studies, documentation, and statistics clearly show that aircraft collisions with birds and other wildlife are a serious economic and public safety problem. While many species of wildlife can pose a threat to aircraft safety, they are not equally hazardous. Table 1

ranks the wildlife groups commonly involved in damaging strikes in the United States according to their relative hazard to aircraft. The ranking is based on the 47,212 records in the FAA National Wildlife Strike Database for the years 1990 through 2003. These hazard rankings, in conjunction with site-specific Wildlife Hazards Assessments (WHA), will help airport operators determine the relative abundance and use patterns of wildlife species and help focus hazardous wildlife management efforts on those species most likely to cause problems at an airport.

Most public-use airports have large tracts of open, undeveloped land that provide added margins of safety and noise mitigation. These areas can also present potential hazards to aviation if they encourage wildlife to enter an airport's approach or departure airspace or air operations area (AOA). Constructed or natural areas—such as poorly drained locations, detention/retention ponds, roosting habitats on buildings, landscaping, odor-causing rotting organic matter (putrescible waste) disposal operations, wastewater treatment plants, agricultural or aquaculture activities, surface mining, or wetlands—can provide wildlife with ideal locations for feeding, loafing, reproduction, and escape. Even small facilities, such as fast food restaurants, taxicab staging areas, rental car facilities, aircraft viewing areas, and public parks, can produce substantial attractions for hazardous wildlife.

During the past century, wildlife-aircraft strikes have resulted in the loss of hundreds of lives worldwide, as well as billions of dollars in aircraft damage. Hazardous wildlife attractants on and near airports can jeopardize future airport expansion, making proper community land-use planning essential. This AC provides airport operators and those parties with whom they cooperate with the guidance they need to assess and address potentially hazardous wildlife attractants when locating new facilities and implementing certain land-use practices on or near public-use airports.

6. MEMORANDUM OF AGREEMENT BETWEEN FEDERAL RESOURCE AGENCIES. The FAA, the U.S. Air Force, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture - Wildlife Services signed a Memorandum of Agreement (MOA) in July 2003 to acknowledge their respective missions in protecting aviation from wildlife hazards. Through the MOA, the agencies established procedures necessary to coordinate their missions to address more effectively existing and future environmental conditions contributing to collisions between wildlife and aircraft (wildlife strikes) throughout the United States. These efforts are intended to minimize wildlife risks to aviation and human safety while protecting the Nation's valuable environmental resources.



DAVID L. BENNETT
Director, Office of Airport Safety
and Standards

Table 1. Ranking of 25 species groups as to relative hazard to aircraft (1=most hazardous) based on three criteria (damage, major damage, and effect-on-flight), a composite ranking based on all three rankings, and a relative hazard score. Data were derived from the FAA National Wildlife Strike Database, January 1990–April 2003.[1]

Species group	Ranking by criteria			Composite ranking[2]	Relative hazard score[3]
	Damage[4]	Major damage[5]	Effect on flight[6]		
Deer	1	1	1	1	100
Vultures	2	2	2	2	64
Geese	3	3	6	3	55
Cormorants/pelicans	4	5	3	4	54
Cranes	7	6	4	5	47
Eagles	6	9	7	6	41
Ducks	5	8	10	7	39
Osprey	8	4	8	8	39
Turkey/pheasants	9	7	11	9	33
Herons	11	14	9	10	27
Hawks (buteos)	10	12	12	11	25
Gulls	12	11	13	12	24
Rock pigeon	13	10	14	13	23
Owls	14	13	20	14	23
H. lark/s. bunting	18	15	15	15	17
Crows/ravens	15	16	16	16	16
Coyote	16	19	5	17	14
Mourning dove	17	17	17	18	14
Shorebirds	19	21	18	19	10
Blackbirds/starling	20	22	19	20	10
American kestrel	21	18	21	21	9
Meadowlarks	22	20	22	22	7
Swallows	24	23	24	23	4
Sparrows	25	24	23	24	4
Nighthawks	23	25	25	25	1

[1] Excerpted from the *Special Report for the FAA, "Ranking the Hazard Level of Wildlife Species to Civil Aviation in the USA: Update #1, July 2, 2003".* Refer to this report for additional explanations of criteria and method of ranking.

[2] Relative rank of each species group was compared with every other group for the three variables, placing the species group with the greatest hazard rank for ≥ 2 of the 3 variables above the next highest ranked group, then proceeding down the list.

[3] Percentage values, from Tables 3 and 4 in Footnote 1 of the *Special Report*, for the three criteria were summed and scaled down from 100, with 100 as the score for the species group with the maximum summed values and the greatest potential hazard to aircraft.

[4] Aircraft incurred at least some damage (destroyed, substantial, minor, or unknown) from strike.

[5] Aircraft incurred damage or structural failure, which adversely affected the structure strength, performance, or flight characteristics, and which would normally require major repair or replacement of the affected component, or the damage sustained makes it inadvisable to restore aircraft to airworthy condition.

[6] Aborted takeoff, engine shutdown, precautionary landing, or other.

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Table of Contents

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SECTION 1.

GENERAL SEPARATION CRITERIA FOR HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS.

1-1. INTRODUCTION. When considering proposed land uses, airport operators, local planners, and developers must take into account whether the proposed land uses, including new development projects, will increase wildlife hazards. Land-use practices that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife strikes.

The FAA recommends the minimum separation criteria outlined below for land-use practices that attract hazardous wildlife to the vicinity of airports. Please note that FAA criteria include land uses that cause movement of hazardous wildlife onto, into, or across the airport's approach or departure airspace or air operations area (AOA). (See the discussion of the synergistic effects of surrounding land uses in Section 2-8 of this AC.)

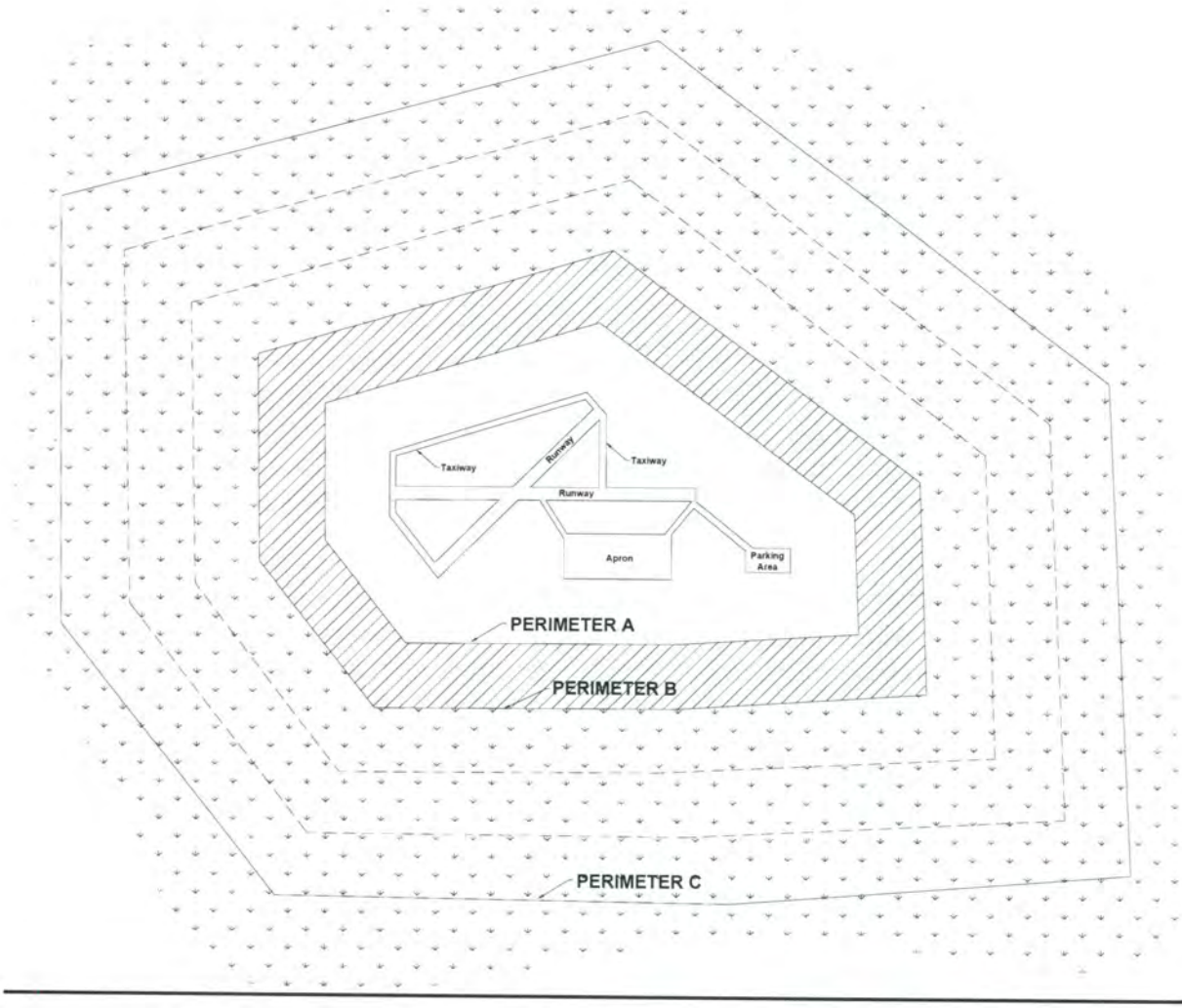
The basis for the separation criteria contained in this section can be found in existing FAA regulations. The separation distances are based on (1) flight patterns of piston-powered aircraft and turbine-powered aircraft, (2) the altitude at which most strikes happen (78 percent occur under 1,000 feet and 90 percent occur under 3,000 feet above ground level), and (3) National Transportation Safety Board (NTSB) recommendations.

1-2. AIRPORTS SERVING PISTON-POWERED AIRCRAFT. Airports that do not sell Jet-A fuel normally serve piston-powered aircraft. Notwithstanding more stringent requirements for specific land uses, the FAA recommends a separation distance of 5,000 feet at these airports for any of the hazardous wildlife attractants mentioned in Section 2 or for new airport development projects meant to accommodate aircraft movement. This distance is to be maintained between an airport's AOA and the hazardous wildlife attractant. Figure 1 depicts this separation distance measured from the nearest aircraft operations areas.

1-3. AIRPORTS SERVING TURBINE-POWERED AIRCRAFT. Airports selling Jet-A fuel normally serve turbine-powered aircraft. Notwithstanding more stringent requirements for specific land uses, the FAA recommends a separation distance of 10,000 feet at these airports for any of the hazardous wildlife attractants mentioned in Section 2 or for new airport development projects meant to accommodate aircraft movement. This distance is to be maintained between an airport's AOA and the hazardous wildlife attractant. Figure 1 depicts this separation distance from the nearest aircraft movement areas.

1-4. PROTECTION OF APPROACH, DEPARTURE, AND CIRCLING AIRSPACE. For all airports, the FAA recommends a distance of 5 statute miles between the farthest edge of the airport's AOA and the hazardous wildlife attractant if the attractant could cause hazardous wildlife movement into or across the approach or departure airspace.

Figure 1. Separation distances within which hazardous wildlife attractants should be avoided, eliminated, or mitigated.



PERIMETER A: For airports serving piston-powered aircraft, hazardous wildlife attractants must be 5,000 feet from the nearest air operations area.

PERIMETER B: For airports serving turbine-powered aircraft, hazardous wildlife attractants must be 10,000 feet from the nearest air operations area.

PERIMETER C: 5-mile range to protect approach, departure and circling airspace.

SECTION 2.

LAND-USE PRACTICES ON OR NEAR AIRPORTS THAT POTENTIALLY ATTRACT HAZARDOUS WILDLIFE.

2-1. GENERAL. The wildlife species and the size of the populations attracted to the airport environment vary considerably, depending on several factors, including land-use practices on or near the airport. This section discusses land-use practices having the potential to attract hazardous wildlife and threaten aviation safety. In addition to the specific considerations outlined below, airport operators should refer to *Wildlife Hazard Management at Airports,* prepared by FAA and U.S. Department of Agriculture (USDA) staff. (This manual is available in English, Spanish, and French. It can be viewed and downloaded free of charge from the FAA's wildlife hazard mitigation web site: http://wildlife-mitigation.tc.FAA.gov.). And, *Prevention and Control of Wildlife Damage,* compiled by the University of Nebraska Cooperative Extension Division. (This manual is available online in a periodically updated version at: ianrwww.unl.edu/wildlife/solutions/handbook/.)

2-2. WASTE DISPOSAL OPERATIONS. Municipal solid waste landfills (MSWLF) are known to attract large numbers of hazardous wildlife, particularly birds. Because of this, these operations, when located within the separations identified in the siting criteria in Sections 1-2 through 1-4, are considered incompatible with safe airport operations.

a. **Siting for new municipal solid waste landfills subject to AIR 21.** Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181) (AIR 21) prohibits the construction or establishment of a new MSWLF within 6 statute miles of certain public-use airports. Before these prohibitions apply, both the airport and the landfill must meet the very specific conditions described below. These restrictions do not apply to airports or landfills located within the state of Alaska.

   The airport must (1) have received a Federal grant(s) under 49 U.S.C. § 47101, et. seq.; (2) be under control of a public agency; (3) serve some scheduled air carrier operations conducted in aircraft with less than 60 seats; and (4) have total annual enplanements consisting of at least 51 percent of scheduled air carrier enplanements conducted in aircraft with less than 60 passenger seats.

   The proposed MSWLF must (1) be within 6 miles of the airport, as measured from airport property line to MSWLF property line, and (2) have started construction or establishment on or after April 5, 2001. Public Law 106-181 only limits the construction or establishment of some new MSWLF. It does not limit the expansion, either vertical or horizontal, of existing landfills.

   NOTE: Consult the most recent version of AC 150/5200-34, *Construction or Establishment of Landfills Near Public Airports,* for a more detailed discussion of these restrictions.

b. **Siting for new MSWLF not subject to AIR 21.** If an airport and MSWLF do not meet the restrictions of Public Law 106-181, the FAA recommends against locating MSWLF within the separation distances identified in Sections 1-2 through 1-4. The separation distances should be measured from the closest point of the airport's AOA to the closest planned MSWLF cell.

c. **Considerations for existing waste disposal facilities within the limits of separation criteria.** The FAA recommends against airport development projects that would increase the number of aircraft operations or accommodate larger or faster aircraft near MSWLF operations located within the separations identified in Sections 1-2 through 1-4. In addition, in accordance with 40 CFR 258.10, owners or operators of existing MSWLF units that are located within the separations listed in Sections 1-2 through 1-4 must demonstrate that the unit is designed and operated so it does not pose a bird hazard to aircraft. (See Section 4-2(b) of this AC for a discussion of this demonstration requirement.)

d. **Enclosed trash transfer stations.** Enclosed waste-handling facilities that receive garbage behind closed doors; process it via compaction, incineration, or similar manner; and remove all residue by enclosed vehicles generally are compatible with safe airport operations, provided they are not located on airport property or within the Runway Protection Zone (RPZ). These facilities should not handle or store putrescible waste outside or in a partially enclosed structure accessible to hazardous wildlife. Trash transfer facilities that are open on one or more sides; that store uncovered quantities of municipal solid waste outside, even if only for a short time; that use semi-trailers that leak or have trash clinging to the outside; or that do not control odors by ventilation and filtration systems (odor masking is not acceptable) do not meet the FAA's definition of fully enclosed trash transfer stations. The FAA considers these facilities incompatible with safe airport operations if they are located closer than the separation distances specified in Sections 1-2 through 1-4.

e. **Composting operations on or near airport property.** Composting operations that accept only yard waste (e.g., leaves, lawn clippings, or branches) generally do not attract hazardous wildlife. Sewage sludge, woodchips, and similar material are not municipal solid wastes and may be used as compost bulking agents. The compost, however, must never include food or other municipal solid waste. Composting operations should not be located on airport property. Off-airport property composting operations should be located no closer than the greater of the following distances: 1,200 feet from any AOA or the distance called for by airport design requirements (see AC 150/5300-13, *Airport Design*). This spacing should prevent material, personnel, or equipment from penetrating any Object Free Area (OFA), Obstacle Free Zone (OFZ), Threshold Siting Surface (TSS), or Clearway. Airport operators should monitor composting operations located in proximity to the airport to ensure that steam or thermal rise does not adversely affect air traffic. On-airport disposal of compost by-products should not be conducted for the reasons stated in 2-3f.

f. **Underwater waste discharges.** The FAA recommends against the underwater discharge of any food waste (e.g., fish processing offal) within the separations identified in Sections 1-2 through 1-4 because it could attract scavenging hazardous wildlife.

g. **Recycling centers.** Recycling centers that accept previously sorted non-food items, such as glass, newspaper, cardboard, or aluminum, are, in most cases, not attractive to hazardous wildlife and are acceptable.

h. **Construction and demolition (C&D) debris facilities.** C&D landfills do not generally attract hazardous wildlife and are acceptable if maintained in an orderly manner, admit no putrescible waste, and are not co-located with other waste disposal operations. However, C&D landfills have similar visual and operational characteristics to putrescible waste disposal sites. When co-located with putrescible waste disposal operations, C&D landfills are more likely to attract hazardous wildlife because of the similarities between these disposal facilities. Therefore, a C&D landfill co-located with another waste disposal operation should be located outside of the separations identified in Sections 1-2 through 1-4.

i. **Fly ash disposal.** The incinerated residue from resource recovery power/heat-generating facilities that are fired by municipal solid waste, coal, or wood is generally not a wildlife attractant because it no longer contains putrescible matter. Landfills accepting only fly ash are generally not considered to be wildlife attractants and are acceptable as long as they are maintained in an orderly manner, admit no putrescible waste of any kind, and are not co-located with other disposal operations that attract hazardous wildlife.

   Since varying degrees of waste consumption are associated with general incineration (not resource recovery power/heat-generating facilities), the FAA considers the ash from general incinerators a regular waste disposal by-product and, therefore, a hazardous wildlife attractant if disposed of within the separation criteria outlined in Sections 1-2 through 1-4.

2-3. WATER MANAGEMENT FACILITIES. Drinking water intake and treatment facilities, storm water and wastewater treatment facilities, associated retention and settling ponds, ponds built for recreational use, and ponds that result from mining activities often attract large numbers of potentially hazardous wildlife. To prevent wildlife hazards, land-use developers and airport operators may need to develop management plans, in compliance with local and state regulations, to support the operation of storm water management facilities on or near all public-use airports to ensure a safe airport environment.

a. **Existing storm water management facilities.** On-airport storm water management facilities allow the quick removal of surface water, including discharges related to aircraft deicing, from impervious surfaces, such as pavement and terminal/hangar building roofs. Existing on-airport detention ponds collect storm water, protect water quality, and control runoff. Because they slowly release water

after storms, they create standing bodies of water that can attract hazardous wildlife. Where the airport has developed a Wildlife Hazard Management Plan (WHMP) in accordance with Part 139, the FAA requires immediate correction of any wildlife hazards arising from existing storm water facilities located on or near airports, using appropriate wildlife hazard mitigation techniques. Airport operators should develop measures to minimize hazardous wildlife attraction in consultation with a wildlife damage management biologist.

Where possible, airport operators should modify storm water detention ponds to allow a maximum 48-hour detention period for the design storm. The FAA recommends that airport operators avoid or remove retention ponds and detention ponds featuring dead storage to eliminate standing water. Detention basins should remain totally dry between rainfalls. Where constant flow of water is anticipated through the basin, or where any portion of the basin bottom may remain wet, the detention facility should include a concrete or paved pad and/or ditch/swale in the bottom to prevent vegetation that may provide nesting habitat.

When it is not possible to drain a large detention pond completely, airport operators may use physical barriers, such as bird balls, wires grids, pillows, or netting, to deter birds and other hazardous wildlife. When physical barriers are used, airport operators must evaluate their use and ensure they will not adversely affect water rescue. Before installing any physical barriers over detention ponds on Part 139 airports, airport operators must get approval from the appropriate FAA Regional Airports Division Office.

The FAA recommends that airport operators encourage off-airport storm water treatment facility operators to incorporate appropriate wildlife hazard mitigation techniques into storm water treatment facility operating practices when their facility is located within the separation criteria specified in Sections 1-2 through 1-4.

b. **New storm water management facilities.** The FAA strongly recommends that off-airport storm water management systems located within the separations identified in Sections 1-2 through 1-4 be designed and operated so as not to create above-ground standing water. Stormwater detention ponds should be designed, engineered, constructed, and maintained for a maximum 48–hour detention period after the design storm and remain completely dry between storms. To facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, rip-rap lined, narrow, linearly shaped water detention basins. When it is not possible to place these ponds away from an airport's AOA, airport operators should use physical barriers, such as bird balls, wires grids, pillows, or netting, to prevent access of hazardous wildlife to open water and minimize aircraft-wildlife interactions. When physical barriers are used, airport operators must evaluate their use and ensure they will not adversely affect water rescue. Before installing any physical barriers over detention ponds on Part 139 airports, airport operators must get approval from the appropriate FAA Regional Airports Division Office. All vegetation in or around detention basins that provide food or cover for hazardous wildlife should be eliminated. If soil conditions and other requirements allow, the FAA encourages

the use of underground storm water infiltration systems, such as French drains or buried rock fields, because they are less attractive to wildlife.

c. **Existing wastewater treatment facilities.** The FAA strongly recommends that airport operators immediately correct any wildlife hazards arising from existing wastewater treatment facilities located on or near the airport. Where required, a WHMP developed in accordance with Part 139 will outline appropriate wildlife hazard mitigation techniques. Accordingly, airport operators should encourage wastewater treatment facility operators to incorporate measures, developed in consultation with a wildlife damage management biologist, to minimize hazardous wildlife attractants. Airport operators should also encourage those wastewater treatment facility operators to incorporate these mitigation techniques into their standard operating practices. In addition, airport operators should consider the existence of wastewater treatment facilities when evaluating proposed sites for new airport development projects and avoid such sites when practicable.

d. **New wastewater treatment facilities.** The FAA strongly recommends against the construction of new wastewater treatment facilities or associated settling ponds within the separations identified in Sections 1-2 through 1-4. Appendix 1 defines wastewater treatment facility as "any devices and/or systems used to store, treat, recycle, or reclaim municipal sewage or liquid industrial wastes." The definition includes any pretreatment involving the reduction of the amount of pollutants or the elimination of pollutants prior to introducing such pollutants into a publicly owned treatment works (wastewater treatment facility). During the site-location analysis for wastewater treatment facilities, developers should consider the potential to attract hazardous wildlife if an airport is in the vicinity of the proposed site, and airport operators should voice their opposition to such facilities if they are in proximity to the airport.

e. **Artificial marshes.** In warmer climates, wastewater treatment facilities sometimes employ artificial marshes and use submergent and emergent aquatic vegetation as natural filters. These artificial marshes may be used by some species of flocking birds, such as blackbirds and waterfowl, for breeding or roosting activities. The FAA strongly recommends against establishing artificial marshes within the separations identified in Sections 1-2 through 1-4.

f. **Wastewater discharge and sludge disposal.** The FAA recommends against the discharge of wastewater or sludge on airport property because it may improve soil moisture and quality on unpaved areas and lead to improved turf growth that can be an attractive food source for many species of animals. Also, the turf requires more frequent mowing, which in turn may mutilate or flush insects or small animals and produce straw, both of which can attract hazardous wildlife. In addition, the improved turf may attract grazing wildlife, such as deer and geese. Problems may also occur when discharges saturate unpaved airport areas. The resultant soft, muddy conditions can severely restrict or prevent emergency vehicles from reaching accident sites in a timely manner.

2-4. WETLANDS. Wetlands provide a variety of functions and can be regulated by local, state, and Federal laws. Normally, wetlands are attractive to many types of wildlife, including many which rank high on the list of hazardous wildlife species (Table 1).

NOTE: If questions exist as to whether an area qualifies as a wetland, contact the local division of the U.S. Army Corps of Engineers, the Natural Resources Conservation Service, or a wetland consultant qualified to delineate wetlands.

a. **Existing wetlands on or near airport property.** If wetlands are located on or near airport property, airport operators should be alert to any wildlife use or habitat changes in these areas that could affect safe aircraft operations. At public-use airports, the FAA recommends immediately correcting, in cooperation with local, state, and Federal regulatory agencies, any wildlife hazards arising from existing wetlands located on or near airports. Where required, a WHMP will outline appropriate wildlife hazard mitigation techniques. Accordingly, airport operators should develop measures to minimize hazardous wildlife attraction in consultation with a wildlife damage management biologist.

b. **New airport development.** Whenever possible, the FAA recommends locating new airports using the separations from wetlands identified in Sections 1-2 through 1-4. Where alternative sites are not practicable, or when airport operators are expanding an existing airport into or near wetlands, a wildlife damage management biologist, in consultation with the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the state wildlife management agency should evaluate the wildlife hazards and prepare a WHMP that indicates methods of minimizing the hazards.

c. **Mitigation for wetland impacts from airport projects.** Wetland mitigation may be necessary when unavoidable wetland disturbances result from new airport development projects or projects required to correct wildlife hazards from wetlands. Wetland mitigation must be designed so it does not create a wildlife hazard. The FAA recommends that wetland mitigation projects that may attract hazardous wildlife be sited outside of the separations identified in Sections 1-2 through 1-4.

   (1) Onsite mitigation of wetland functions. The FAA may consider exceptions to locating mitigation activities outside the separations identified in Sections 1-2 through 1-4 if the affected wetlands provide unique ecological functions, such as critical habitat for threatened or endangered species or ground water recharge, which cannot be replicated when moved to a different location. Using existing airport property is sometimes the only feasible way to achieve the mitigation ratios mandated in regulatory orders and/or settlement agreements with the resource agencies. Conservation easements are an additional means of providing mitigation for project impacts. Typically the airport operator continues to own the property, and an easement is created stipulating that the property will be maintained as habitat for state or Federally listed species.

Mitigation must not inhibit the airport operator's ability to effectively control hazardous wildlife on or near the mitigation site or effectively maintain other aspects of safe airport operations. Enhancing such mitigation areas to attract hazardous wildlife must be avoided. The FAA will review any onsite mitigation proposals to determine compatibility with safe airport operations. A wildlife damage management biologist should evaluate any wetland mitigation projects that are needed to protect unique wetland functions and that must be located in the separation criteria in Sections 1-2 through 1-4 before the mitigation is implemented. A WHMP should be developed to reduce the wildlife hazards.

(2) Offsite mitigation of wetland functions. The FAA recommends that wetland mitigation projects that may attract hazardous wildlife be sited outside of the separations identified in Sections 1-2 through 1-4 unless they provide unique functions that must remain onsite (see 2-4c(1)). Agencies that regulate impacts to or around wetlands recognize that it may be necessary to split wetland functions in mitigation schemes. Therefore, regulatory agencies may, under certain circumstances, allow portions of mitigation to take place in different locations.

(3) Mitigation banking. Wetland mitigation banking is the creation or restoration of wetlands in order to provide mitigation credits that can be used to offset permitted wetland losses. Mitigation banking benefits wetland resources by providing advance replacement for permitted wetland losses; consolidating small projects into larger, better-designed and managed units; and encouraging integration of wetland mitigation projects with watershed planning. This last benefit is most helpful for airport projects, as wetland impacts mitigated outside of the separations identified in Sections 1-2 through 1-4 can still be located within the same watershed. Wetland mitigation banks meeting the separation criteria offer an ecologically sound approach to mitigation in these situations. Airport operators should work with local watershed management agencies or organizations to develop mitigation banking for wetland impacts on airport property.

2-5. DREDGE SPOIL CONTAINMENT AREAS. The FAA recommends against locating dredge spoil containment areas (also known as Confined Disposal Facilities) within the separations identified in Sections 1-2 through 1-4 if the containment area or the spoils contain material that would attract hazardous wildlife.

2-6. AGRICULTURAL ACTIVITIES. Because most, if not all, agricultural crops can attract hazardous wildlife during some phase of production, the FAA recommends against the used of airport property for agricultural production, including hay crops, within the separations identified in Sections 1-2 through 1-4. . If the airport has no financial alternative to agricultural crops to produce income necessary to maintain the viability of the airport, then the airport shall follow the crop distance guidelines listed in the table titled "Minimum Distances between Certain Airport Features and Any On-Airport Agricultural Crops" found in AC 150/5300-13, *Airport Design*, Appendix 17. The cost of wildlife control and potential accidents should be weighed against the income produced by the on-airport crops when deciding whether to allow crops on the airport.

a. **Livestock production.** Confined livestock operations (i.e., feedlots, dairy operations, hog or chicken production facilities, or egg laying operations) often attract flocking birds, such as starlings, that pose a hazard to aviation. Therefore, The FAA recommends against such facilities within the separations identified in Sections 1-2 through 1-4. Any livestock operation within these separations should have a program developed to reduce the attractiveness of the site to species that are hazardous to aviation safety. Free-ranging livestock must not be grazed on airport property because the animals may wander onto the AOA. Furthermore, livestock feed, water, and manure may attract birds.

b. **Aquaculture.** Aquaculture activities (i.e. catfish or trout production) conducted outside of fully enclosed buildings are inherently attractive to a wide variety of birds. Existing aquaculture facilities/activities within the separations listed in Sections 1-2 through 1-4 must have a program developed to reduce the attractiveness of the sites to species that are hazardous to aviation safety. Airport operators should also oppose the establishment of new aquaculture facilities/activities within the separations listed in Sections 1-2 through 1-4.

c. **Alternative uses of agricultural land.** Some airports are surrounded by vast areas of farmed land within the distances specified in Sections 1-2 through 1-4. Seasonal uses of agricultural land for activities such as hunting can create a hazardous wildlife situation. In some areas, farmers will rent their land for hunting purposes. Rice farmers, for example, flood their land during waterfowl hunting season and obtain additional revenue by renting out duck blinds. The duck hunters then use decoys and call in hundreds, if not thousands, of birds, creating a tremendous threat to aircraft safety. A wildlife damage management biologist should review, in coordination with local farmers and producers, these types of seasonal land uses and incorporate them into the WHMP.

2-7. GOLF COURSES, LANDSCAPING AND OTHER LAND-USE CONSIDERATIONS.

a. **Golf courses.** The large grassy areas and open water found on most golf courses are attractive to hazardous wildlife, particularly Canada geese and some species of gulls. These species can pose a threat to aviation safety. The FAA recommends against construction of new golf courses within the separations identified in Sections 1-2 through 1-4. Existing golf courses located within these separations must develop a program to reduce the attractiveness of the sites to species that are hazardous to aviation safety. Airport operators should ensure these golf courses are monitored on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be immediately implemented.

b. **Landscaping and landscape maintenance.** Depending on its geographic location, landscaping can attract hazardous wildlife. The FAA recommends that airport operators approach landscaping with caution and confine it to airport areas not associated with aircraft movements. A wildlife damage management biologist should review all landscaping plans. Airport operators should also monitor all landscaped areas on a continuing basis for the presence of hazardous wildlife. If

hazardous wildlife is detected, corrective actions should be immediately implemented.

Turf grass areas can be highly attractive to a variety of hazardous wildlife species. Research conducted by the USDA Wildlife Services' National Wildlife Research Center has shown that no one grass management regime will deter all species of hazardous wildlife in all situations. In cooperation with wildlife damage management biologist, airport operators should develop airport turf grass management plans on a prescription basis, depending on the airport's geographic locations and the type of hazardous wildlife likely to frequent the airport

Airport operators should ensure that plant varieties attractive to hazardous wildlife are not used on the airport. Disturbed areas or areas in need of re-vegetating should not be planted with seed mixtures containing millet or any other large-seed producing grass. For airport property already planted with seed mixtures containing millet, rye grass, or other large-seed producing grasses, the FAA recommends disking, plowing, or another suitable agricultural practice to prevent plant maturation and seed head production. Plantings should follow the specific recommendations for grass management and seed and plant selection made by the State University Cooperative Extension Service, the local office of Wildlife Services, or a qualified wildlife damage management biologist. Airport operators should also consider developing and implementing a preferred/prohibited plant species list, reviewed by a wildlife damage management biologist, which has been designed for the geographic location to reduce the attractiveness to hazardous wildlife for landscaping airport property.

c. **Airports surrounded by wildlife habitat.** The FAA recommends that operators of airports surrounded by woodlands, water, or wetlands refer to Section 2.4 of this AC. Operators of such airports should provide for a Wildlife Hazard Assessment (WHA) conducted by a wildlife damage management biologist. This WHA is the first step in preparing a WHMP, where required.

d. **Other hazardous wildlife attractants.** Other specific land uses or activities (e.g., sport or commercial fishing, shellfish harvesting, etc.), perhaps unique to certain regions of the country, have the potential to attract hazardous wildlife. Regardless of the source of the attraction, when hazardous wildlife is noted on a public-use airport, airport operators must take prompt remedial action(s) to protect aviation safety.

2-8. SYNERGISTIC EFFECTS OF SURROUNDING LAND USES. There may be circumstances where two (or more) different land uses that would not, by themselves, be considered hazardous wildlife attractants or that are located outside of the separations identified in Sections 1-2 through 1-4 that are in such an alignment with the airport as to create a wildlife corridor directly through the airport and/or surrounding airspace. An example of this situation may involve a lake located outside of the separation criteria on the east side of an airport and a large hayfield on the west side of an airport, land uses that together could create a flyway for Canada geese directly across the airspace of the airport. There are numerous examples of such situations;

therefore, airport operators and the wildlife damage management biologist must consider the entire surrounding landscape and community when developing the WHMP.

SECTION 3.

PROCEDURES FOR WILDLIFE HAZARD MANAGEMENT BY OPERATORS OF PUBLIC-USE AIRPORTS.

3.1. INTRODUCTION. In recognition of the increased risk of serious aircraft damage or the loss of human life that can result from a wildlife strike, the FAA may require the development of a Wildlife Hazard Management Plan (WHMP) when specific triggering events occur on or near the airport. Part 139.337 discusses the specific events that trigger a Wildlife Hazard Assessment (WHA) and the specific issues that a WHMP must address for FAA approval and inclusion in an Airport Certification Manual.

3.2. COORDINATION WITH USDA WILDLIFE SERVICES OR OTHER QUALIFIED WILDLIFE DAMAGE MANAGEMENT BIOLOGISTS. The FAA will use the Wildlife Hazard Assessment (WHA) conducted in accordance with Part 139 to determine if the airport needs a WHMP. Therefore, persons having the education, training, and expertise necessary to assess wildlife hazards must conduct the WHA. The airport operator may look to Wildlife Services or to qualified private consultants to conduct the WHA. When the services of a wildlife damage management biologist are required, the FAA recommends that land-use developers or airport operators contact a consultant specializing in wildlife damage management or the appropriate state director of Wildlife Services.

NOTE: Telephone numbers for the respective USDA Wildlife Services state offices can be obtained by contacting USDA Wildlife Services Operational Support Staff, 4700 River Road, Unit 87, Riverdale, MD, 20737-1234, Telephone (301) 734-7921, Fax (301) 734-5157 *(http://www.aphis.usda.gov/ws/)*.

3-3. WILDLIFE HAZARD MANAGEMENT AT AIRPORTS: A MANUAL FOR AIRPORT PERSONNEL. This manual, prepared by FAA and USDA Wildlife Services staff, contains a compilation of information to assist airport personnel in the development, implementation, and evaluation of WHMPs at airports. The manual includes specific information on the nature of wildlife strikes, legal authority, regulations, wildlife management techniques, WHAs, WHMPs, and sources of help and information. The manual is available in three languages: English, Spanish, and French. It can be viewed and downloaded free of charge from the FAA's wildlife hazard mitigation web site: http://wildlife-mitigation.tc.FAA.gov/. This manual only provides a starting point for addressing wildlife hazard issues at airports. Hazardous wildlife management is a complex discipline and conditions vary widely across the United States. Therefore, qualified wildlife damage management biologists must direct the development of a WHMP and the implementation of management actions by airport personnel.

There are many other resources complementary to this manual for use in developing and implementing WHMPs. Several are listed in the manual's bibliography.

3-4. WILDLIFE HAZARD ASSESSMENTS, TITLE 14, CODE OF FEDERAL REGULATIONS, PART 139. Part 139.337(b) requires airport operators to conduct a Wildlife Hazard Assessment (WHA) when certain events occur on or near the airport.

Part 139.337 (c) provides specific guidance as to what facts must be addressed in a WHA.

3-5. WILDLIFE HAZARD MANAGEMENT PLAN (WHMP). The FAA will consider the results of the WHA, along with the aeronautical activity at the airport and the views of the airport operator and airport users, in determining whether a formal WHMP is needed, in accordance with Part 139.337. If the FAA determines that a WHMP is needed, the airport operator must formulate and implement a WHMP, using the WHA as the basis for the plan.

The goal of an airport's Wildlife Hazard Management Plan is to minimize the risk to aviation safety, airport structures or equipment, or human health posed by populations of hazardous wildlife on and around the airport.

The WHMP must identify hazardous wildlife attractants on or near the airport and the appropriate wildlife damage management techniques to minimize the wildlife hazard. It must also prioritize the management measures.

3-6. LOCAL COORDINATION. The establishment of a Wildlife Hazards Working Group (WHWG) will facilitate the communication, cooperation, and coordination of the airport and its surrounding community necessary to ensure the effectiveness of the WHMP. The cooperation of the airport community is also necessary when new projects are considered. Whether on or off the airport, the input from all involved parties must be considered when a potentially hazardous wildlife attractant is being proposed. Airport operators should also incorporate public education activities with the local coordination efforts because some activities in the vicinity of your airport, while harmless under normal leisure conditions, can attract wildlife and present a danger to aircraft. For example, if public trails are planned near wetlands or in parks adjoining airport property, the public should know that feeding birds and other wildlife in the area may pose a risk to aircraft.

Airport operators should work with local and regional planning and zoning boards so as to be aware of proposed land-use changes, or modification of existing land uses, that could create hazardous wildlife attractants within the separations identified in Sections 1-2 through 1-4. Pay particular attention to proposed land uses involving creation or expansion of waste water treatment facilities, development of wetland mitigation sites, or development or expansion of dredge spoil containment areas. At the very least, airport operators must ensure they are on the notification list of the local planning board or equivalent review entity for all communities located within 5 miles of the airport, so they will receive notification of any proposed project and have the opportunity to review it for attractiveness to hazardous wildlife.

3-7 COORDINATION/NOTIFICATION OF AIRMEN OF WILDLIFE HAZARDS. If an existing land-use practice creates a wildlife hazard and the land-use practice or wildlife hazard cannot be immediately eliminated, airport operators must issue a Notice to Airmen (NOTAM) and encourage the land–owner or manager to take steps to control the wildlife hazard and minimize further attraction.

SECTION 4.

FAA NOTIFICATION AND REVIEW OF PROPOSED LAND-USE PRACTICE CHANGES IN THE VICINITY OF PUBLIC-USE AIRPORTS

4-1. FAA REVIEW OF PROPOSED LAND-USE PRACTICE CHANGES IN THE VICINITY OF PUBLIC-USE AIRPORTS.

a. The FAA discourages the development of waste disposal and other facilities, discussed in Section 2, located within the 5,000/10,000-foot criteria specified in Sections 1-2 through 1-4.

b. For projects that are located outside the 5,000/10,000-foot criteria but within 5 statute miles of the airport's AOA, the FAA may review development plans, proposed land-use changes, operational changes, or wetland mitigation plans to determine if such changes present potential wildlife hazards to aircraft operations. The FAA considers sensitive airport areas as those that lie under or next to approach or departure airspace. This brief examination should indicate if further investigation is warranted.

c. Where a wildlife damage management biologist has conducted a further study to evaluate a site's compatibility with airport operations, the FAA may use the study results to make a determination.

4-2. WASTE MANAGEMENT FACILITIES.

a. Notification of new/expanded project proposal. Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181) limits the construction or establishment of new MSWLF within 6 statute miles of certain public-use airports, when both the airport and the landfill meet very specific conditions. See Section 2-2 of this AC and AC 150/5200-34 for a more detailed discussion of these restrictions.

The Environmental Protection Agency (EPA) requires any MSWLF operator proposing a new or expanded waste disposal operation within 5 statute miles of a runway end to notify the appropriate FAA Regional Airports Division Office and the airport operator of the proposal (40 CFR 258, *Criteria for Municipal Solid Waste Landfills*, Section 258.10, *Airport Safety*). The EPA also requires owners or operators of new MSWLF units, or lateral expansions of existing MSWLF units, that are located within 10,000 feet of any airport runway end used by turbojet aircraft, or within 5,000 feet of any airport runway end used only by piston-type aircraft, to demonstrate successfully that such units are not hazards to aircraft. (See 4-2.b below.)

When new or expanded MSWLF are being proposed near airports, MSWLF operators must notify the airport operator and the FAA of the proposal as early as possible pursuant to 40 CFR 258.

b. **Waste handling facilities within separations identified in Sections 1-2 through 1-4.** To claim successfully that a waste-handling facility sited within the separations identified in Sections 1-2 through 1-4 does not attract hazardous wildlife and does not threaten aviation, the developer must establish convincingly that the facility will not handle putrescible material other than that as outlined in 2-2.d. The FAA strongly recommends against any facility other than that as outlined in 2-2.d (enclosed transfer stations). The FAA will use this information to determine if the facility will be a hazard to aviation.

c. **Putrescible-Waste Facilities.** In their effort to satisfy the EPA requirement, some putrescible-waste facility proponents may offer to undertake experimental measures to demonstrate that their proposed facility will not be a hazard to aircraft. To date, no such facility has been able to demonstrate an ability to reduce and sustain hazardous wildlife to levels that existed before the putrescible-waste landfill began operating. For this reason, demonstrations of experimental wildlife control measures may not be conducted within the separation identified in Sections 1-2 through 1-4.

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

The airport operator, project proponent, or land-use operator may use FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, or other suitable documents similar to FAA Form 7460-1 to notify the appropriate FAA Regional Airports Division Office. Project proponents can contact the appropriate FAA Regional Airports Division Office for assistance with the notification process.

It is helpful if the notification includes a 15-minute quadrangle map of the area identifying the location of the proposed activity. The land-use operator or project proponent should also forward specific details of the proposed land-use change or operational change or expansion. In the case of solid waste landfills, the information should include the type of waste to be handled, how the waste will be processed, and final disposal methods.

a. **Airports that have received Federal grant-in-aid assistance.** Airports that have received Federal grant-in-aid assistance are required by their grant assurances to take appropriate actions to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations. The FAA recommends that airport operators to the extent practicable oppose off-airport land-use changes or practices within the separations identified in Sections 1-2 through 1-4 that may attract hazardous wildlife. Failure to do so may lead to noncompliance with applicable grant assurances. The FAA will not approve the placement of airport

development projects pertaining to aircraft movement in the vicinity of hazardous wildlife attractants without appropriate mitigating measures. Increasing the intensity of wildlife control efforts is not a substitute for eliminating or reducing a proposed wildlife hazard. Airport operators should identify hazardous wildlife attractants and any associated wildlife hazards during any planning process for new airport development projects.

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APPENDIX 1. DEFINITIONS OF TERMS USED IN THIS ADVISORY CIRCULAR.

1. **GENERAL.** This appendix provides definitions of terms used throughout this AC.

    1. **Air operations area.** Any area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. An air operations area includes such paved areas or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiways, or apron.

    2. **Airport operator.** The operator (private or public) or sponsor of a public-use airport.

    3. **Approach or departure airspace.** The airspace, within 5 statute miles of an airport, through which aircraft move during landing or takeoff.

    4. **Bird balls.** High-density plastic floating balls that can be used to cover ponds and prevent birds from using the sites.

    5. **Certificate holder.** The holder of an Airport Operating Certificate issued under Title 14, Code of Federal Regulations, Part 139.

    6. **Construct a new MSWLF.** To begin to excavate, grade land, or raise structures to prepare a municipal solid waste landfill as permitted by the appropriate regulatory or permitting agency.

    7. **Detention ponds.** Storm water management ponds that hold storm water for short periods of time, a few hours to a few days.

    8. **Establish a new MSWLF.** When the first load of putrescible waste is received on-site for placement in a prepared municipal solid waste landfill.

    9. **Fly ash.** The fine, sand-like residue resulting from the complete incineration of an organic fuel source. Fly ash typically results from the combustion of coal or waste used to operate a power generating plant.

    10. **General aviation aircraft.** Any civil aviation aircraft not operating under 14 CFR Part 119, Certification: Air Carriers and Commercial Operators.

    11. **Hazardous wildlife.** Species of wildlife (birds, mammals, reptiles), including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard

    12. **Municipal Solid Waste Landfill (MSWLF).** A publicly or privately owned discrete area of land or an excavation that receives household waste and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 CFR § 257.2. An MSWLF may receive

30. **Wildlife.** Any wild animal, including without limitation any wild mammal, bird, reptile, fish, amphibian, mollusk, crustacean, arthropod, coelenterate, or other invertebrate, including any part, product, egg, or offspring thereof (50 CFR 10.12, *Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants*). As used in this AC, wildlife includes feral animals and domestic animals out of the control of their owners (14 CFR Part 139, Certification of Airports).

31. **Wildlife attractants.** Any human-made structure, land-use practice, or human-made or natural geographic feature that can attract or sustain hazardous wildlife within the landing or departure airspace or the airport's AOA. These attractants can include architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquaculture activities, surface mining, or wetlands.

32. **Wildlife hazard.** A potential for a damaging aircraft collision with wildlife on or near an airport.

33. **Wildlife strike.** A wildlife strike is deemed to have occurred when:

    a. A pilot reports striking 1 or more birds or other wildlife;

    b. Aircraft maintenance personnel identify aircraft damage as having been caused by a wildlife strike;

    c. Personnel on the ground report seeing an aircraft strike 1 or more birds or other wildlife;

    d. Bird or other wildlife remains, whether in whole or in part, are found within 200 feet of a runway centerline, unless another reason for the animal's death is identified;

    e. The animal's presence on the airport had a significant negative effect on a flight (i.e., aborted takeoff, aborted landing, high-speed emergency stop, aircraft left pavement area to avoid collision with animal) (Transport Canada, Airports Group, *Wildlife Control Procedures Manual*, Technical Publication 11500E, 1994).

2. RESERVED.

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December 12, 2016

Mr. Ford N. Fuchigami
Director of Transportation
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Fuchigami:

Re: **Draft Environmental Impact Statement** Prepared for the Proposed Waikapu Country Town Project in Waikapu, Maui, Hawaii; TMK Nos: (2) 3-6-002:001, (2) 3-6-002:003, (2) 3-6-4:003, (2) 3-6-004:006, (2) 3-6-005:007 and (2) 3-6-006:036.

Thank you for your letter dated May 18, 2016, which provides the Airport Division's comments regarding the Draft Environmental Impact Statement (DEIS) prepared for the above-referenced project. In response to your comments, please find the following responses:

- ***Federal Aviation Administration (FAA) Advisory Circular 150/5200-33B, Hazardous Wildlife Attractants.*** The Applicant understands that the WCT is within five (5) statute miles between the furthest edge of the airfield's Air Operations Area and the WCT's urban and rural land use and agricultural activities. The Applicant will work with the FAA and the Airports Division to identify BMPs that will help to mitigate hazardous wildlife movement into and from the Project's proposed urban and agricultural infrastructure systems.

- ***WCT Detention Basins.*** The Applicant understands that in order to help prevent the attraction of birds to and from the project area, the FAA recommends that stormwater detention ponds be

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designed, engineered, constructed, and maintained for a maximum 48-hour detention period after the design storm and remain completely dry between storms. The design of the detention basins will include an overflow pipe which will allow a minimal discharge during a storm event and fully drain the basin within 48 hours after each storm event.

- ***PVC Photovoltaic Farms.*** The Applicant acknowledges your concerns regarding potential glint or glare from PV arrays that might be installed within the subject property. The applicant will refer to the suggested website (www.sandia.gov/glare) to prepare a glint and glare analysis and will also consult with the Airports Division prior to installation of any large-scale PV system within the WCT.

  Section V.D.6 of the FEIS documents measures that will be taken to address DOT's concerns regarding hazardous wildlife attractants and photovoltaic farms potential impacts to air operations.

- ***Aircraft Nosie.*** The Applicant understands that the subject property is within the approach surface of the Kahului Airport and overflight noise may be apparent to residents.

The WCT's Final Environmental Impact Statement (FEIS) can be downloaded from the State Office of Environmental Quality Control's (OEQC's) website and the State Land Use Commission's website. The document may also be downloaded from www.waikapu.comThank you very much for your interest in this important Central Maui project. Should you have any questions, please contact me at (808) 269-6220 or by e-mail at msummers@planningconsultantshawaii.com.

Sincerely yours,

Michael J. Summers
President

Attachment
c: Mr. Michael Atherton
Mr. Albert Boyce

19. State of Hawaii, Department of Transportation, Highways Division

DAVID Y. IGE
GOVERNOR

FORD N. FUCHIGAMI
DIRECTOR

Deputy Directors
JADE T. BUTAY
ROSS M. HIGASHI
EDWIN H. SNIFFEN
DARRELL T. YOUNG

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
STP 8.1985

July 6, 2016

TO: THE HONORABLE LUIS P. SALAVERIA
DIRECTOR OF BUSINESS, ECONOMIC DEVELOPMENT
AND TOURISM

ATTN: DANIEL ORODENKER, EXECUTIVE OFFICER
LAND USE COMMISSION

FROM: FORD N. FUCHIGAMI
DIRECTOR OF TRANSPORTATION

SUBJECT: WAIKAPU COUNTRY TOWN
DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
WAIKAPU, MAUI, HAWAII
TMK: (2) 3-6-002:001 and 003, 3-6-004:003 and 006, 3-6-005:007
and 3-6 006:036

Our State Department of Transportation (DOT) previously commented on the subject project in our letter STP 8.1968 dated May 18, 2016 (copy attached) and now offers the following supplemental comments:

Highways Division

1. Acknowledge and appreciate the planned elementary school has moved away from a location abutting Honoapiilani Highway, as discussed in a January 17, 2014, pre-consultation meeting.

2. Honoapiilani Highway will be impacted by the proposed development. The Applicant will be responsible for its fair share of transportation improvements to mitigate the developments transportation impacts to the State Highway system.

3. The proposed intersections of Honoapiilani Highway with the development's Main Street and East/West Street appear to be less than a half mile apart. Federal guidelines for preserving functional classification of principal arterials include limiting the number of access points and sufficient distance between intersections. Internal roadway intersections appear close to Honoapiilani Highway and could affect highway operations. The Applicant should continue to work with us on intersection spacing.

4. Assure consistency and integration of the Hawaii Department of Transportation's (HDOT) bicycle and pedestrian policies and plans.

5. This section of Honoapiilani Highway is planned for widening in the HDOT's 2035 Transportation Plans for the Maui District. The Final EIS should include a discussion that the project will include a road widening setback along Honoapiilani Highway for future widening of this State facility.

6. Suggest meeting with the Highways Division, Planning Branch to further refine transportation improvements, and update the Traffic Impact Analysis Report if needed, prior to County zoning application.

If there are any questions, please contact Mr. Norren Kato of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Attachment: Ltr. STP 8.1968 dtd. 5/18/16

c: Michael J. Summers, Planning Consultants Hawaii, LLC

PLANNING
CONSULTANTS
HAWAII, LLC
URBAN & REGIONAL PLANNING

Land Use Planning • Sustainability Services • Community Planning • Development Permits

December 12, 2016

Mr. Ford N. Fuchigami
Director of Transportation
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Fuchigami:

Re: **Draft Environmental Impact Statement** Prepared for the Proposed Waikapu Country Town Project in Waikapu, Maui, Hawaii; TMK Nos: (2) 3-6-002:001, (2) 3-6-002:003, (2) 3-6-4:003, (2) 3-6-004:006, (2) 3-6-005:007 and (2) 3-6-006:036.

Thank you for your letter dated July 6, 2016, which provides the Highway Division's comments regarding the Draft Environmental Impact Statement (DEIS) prepared for the above-referenced project. In response to your comments, please find the following responses:

1. *Elementary School Siting.* The Applicant understands that the Division is comfortable with the current siting of the proposed elementary school.

2. *Fair share Improvements.* The Applicant understands that the WCT will be responsible for its fair share improvements to mitigate the Project's transportation impacts to the State Highway system.

3. *Intersection Spacing.* In response to your comments regarding the spacing of the Project's intersections along Honoapiilani Highway, the Applicant's traffic consultant, Fehr & Peers, provided the following response:

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"The comment indicates that the proposed project intersections along Honoapiilani Highway are spaced at less than one-half mile intervals and expresses a concern that internal intersections close to the Highway could affect traffic operations along the highway.

For the study intersections along Honoapiilani, the distance from Waiko Road to the future Main Street is approximately 2,400 feet, from the future Main Street to the future East-West Road is approximately 1,600 feet, and from the future East-West Road to the southern terminus of the future Waiale Bypass is approximately 2,400 feet. The spacing is less than ½ a mile between these intersections; however, since the project lies within the urbanized area of Maui, which will become more urbanized as other projects in the area are developed, rather than in the country or a rural area, more closely spaced intersections are reasonable and typical, including along a major arterial. It should be noted that similar intersection spacing along Honoapiilani Highway exists today in Wailuku just north of the WCT study area. For example, the spacing between the signalized intersections at Kehalani Makai Parkway and Kuikahi Drive is approximately 1,300 feet. Similarly, the distance between the signalized intersections of Waiko Road and Pilikana Street is also approximately 1,300 feet. Thus, it is possible to have functional intersections with spacing less than the distance desired by HDOT."

Regarding the spacing of the Project's internal intersections and the Honoapiilani Highway, the Applicant's traffic consultant, Fehr and Peers provided the following response:

"The comment suggests that some of the internal intersections near Honoapiilani Highway appear close to the highway and could affect intersection operations. The detailed intersection level of service analysis conducted as part of the TIAR and as part of the analysis of a future scenario without the Waile Bypass in place was reviewed in response to this comment. Data on the estimated 50th percentile and 95th percentile queues extending away from Honoapiilani Highway was reviewed for

the study intersections where the future Main Street and the future East-West Road are planned to cross the highway (Study Intersections #9 and #11). It was found that the planned roadways will provide more than sufficient storage space in the eastbound and westbound (makai-bound and mauka-bound) directions in all scenarios.

Additional review of the project site plan was conducted in response to this comment. The minor intersection lying east of Study Intersection 11 (Honoapiilani Highway & East-West Road) will be approximately 100 feet east of the highway. This proximity is such that it raises concern about potential vehicular conflicts with drivers turning east onto the East-West Road from the highway. In response it is recommended that turning movements at this intersection be limited to right-turns in to the minor street and right-turns out from the minor street. The most appropriate type of traffic control for internal intersections will be determined by the County as project development proceeds."

4. ***State DOT Bicycle and Pedestrian Plans and Policies.*** The Applicant is aware of the State DOT's bicycle and pedestrian plans and policies. The WCT's proposed pedestrian and bicycle facilities are consistent with the State's plans.

5. ***Honoapiilani Highway Widening.*** The Applicant is aware that HDOT's 2035 Transportation Plan for the Maui District shows Honapiilani Highway being widened fronting the project site to potentially accommodate two additional travel lanes. The WCT site plan should be able to accommodate the additional highway widening if required in the future.

6. ***Future Consultation.*** The Applicant appreciates the opportunity to continue working with HDOT to further refine the proposed transportation improvements and TIAR as the Project proceeds through the land use entitlement process.

The WCT's Final Environmental Impact Statement (FEIS) can be downloaded from the State Office of Environmental Quality Control's (OEQC's) website and the State Land Use Commission's website. The document may also be downloaded from www.waikapu.com. Thank you very much for your interest in this important Central Maui project. Should you have any questions, please contact me at (808) 269-6220 or by e-mail at msummers@planningconsultantshawaii.com.

Sincerely yours,

Michael J. Summers
President

Attachment
c: Mr. Michael Atherton
Mr. Albert Boyce

20. State of Hawaii, Department of Health, Office of Environmental Quality Control

OFFICE OF ENVIRONMENTAL QUALITY CONTROL

DAVID Y. IGE
GOVERNOR

SCOTT GLENN
INTERIM DIRECTOR

DEPARTMENT OF HEALTH, STATE OF HAWAI'I
235 South Beretania Street, Suite 702, Honolulu, HI 96813

Phone: (808) 586-4185
Email: oeqchawaii@doh.hawaii.gov

March 24, 2016

Daniel Orodenker, Executive Officer
Department of Business, Economic Development and Tourism
Land Use Commission
P.O. Box 2359
Honolulu, HI 96804

Dear Mr. Orodenker,

SUBJECT: Draft Environmental Impact Statement (EIS) for the Waikapū Country Town (WCT)

The Office of Environmental Quality Control (OEQC) reviewed the Draft EIS prepared for the subject project and offers the following comments for your consideration.

1) Agriculture Land

The Draft EIS proposes permanently converting prime agricultural land into residential development. This increase in land use intensity may also have an effect on the aquifer and its capacity. The project plans to use non-potable water and recycled water for crop irrigation. However, the total demand on the Waikapū aquifer will likely be increased, especially with other housing developments going into the area.

Additionally, the proximity of farming to homes and schools is of public concern, as there is potential for people to be exposed to chemicals. While the prevailing winds blow North to South, and will mostly keep particulates and other volatiles downwind of the residential area, Kona winds and other future wind conditions may blow the material in other directions. Also, there will be biking and jogging trails around the agricultural areas, and residents using these amenities could come in contact with farming chemicals and airborne particulates. Mitigation measures for these issues should be discussed.

2. Development Mitigation Measures

OEQC commends the recommendation of using low flow shower heads and toilets, LED lighting, other various Low Impact Development initiatives, and a community composting facility. While the stormwater mitigation measures are substantial, using pervious pavement or pavers would decrease stormwater run-off in general and lead to increased groundwater recharging.

Cc: Michael Summers, Planning Consultants Hawai'i, LLC

16-235

3. Infrastructure Improvements

Since WCT promotes non-vehicular transportation, it would be expected that many residents would want to walk or ride bikes with their children to school. In the community scoping phase, Waikapū citizens identified a pedestrian bridge or culvert as ways for residents to cross the highway, even with traffic lights. Many roadway and traffic mitigations measures were identified, but pedestrian and bicycle highway crossing was not addressed. Pedestrian travel across the highway should be discussed in more detail and mitigation measures proposed.

OEQC recommends expanding upon the discussion of long term impacts within the context of anticipated climate change. Lastly, please ensure thorough editing of the document and organizing the Agency Letters Section to enhance readability.

Thank you for the opportunity to comment on the Draft EIS. We look forward to a response that also will be included within the project's Final EIS. If you have questions about these comments, please contact our office at oeqchawaii@doh.hawaii.com or (808) 586-4185.

Sincerely,

Scott Glenn, Interim Director

Cc: Michael Summers, Planning Consultants Hawai'i, LLC

PLANNING
CONSULTANTS
HAWAII, LLC
URBAN & REGIONAL PLANNING

Land Use Planning • Sustainability Services • Community Planning • Development Permits

December 12, 2016

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

Dear Mr. Glenn:

Re: **Draft Environmental Impact Statement** Prepared for the Proposed Waikapu Country Town Project in Waikapu, Maui, Hawaii; TMK Nos: (2) 3-6-002:001, (2) 3-6-002:003, (2) 3-6-4:003, (2) 3-6-004:006, (2) 3-6-005:007 and (2) 3-6-006:036.

Thank you for your letter dated March 24, 2016, regarding the Draft Environmental Impact Statement (DEIS) prepared for the above-referenced project. In response to your comments, please find the following:

1. *Agricultural Land and Water Use.* The agricultural land that is being urbanized is within the Maui Island Plan's (MIP's) Small Town and Rural Growth Boundaries. These lands are needed to accommodate projected population growth through 2030 and are an integral part of the MIP's directed growth strategy.

   Potable water for the Project will be from on-site wells drawing water from the Waikapu Aquifer. The potable water demand for the Project, not including irrigation of urban open space, is estimated to be 968,000 gallons per day (gpd), whereas the Waikapu Aquifer has a sustainable yield of 3 million gpd. Before drawing water from the Aquifer, a permit will be required from the Commission on Water Resource

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Management (CWRM) which has regulatory jurisdiction over the aquifer.

Irrigation of the Project's proposed urban and rural open spaces and irrigation of the Project's agricultural lands is proposed from the following sources:

- Surface water from the Iao Stream via the Iao-Waikapu Ditch and Waikapu Stream via the South Waikapu Ditch and Waihee Ditch. These water sources, which are part of the larger surface water system known as the "Na Wai Eha", have been designated by the CWRM as a Surface Water Management Area. Before drawing water from the Na Wai Eha, a surface water use permit will be required from the CWRM, which has regulatory jurisdiction over the aquifer.
- Agricultural wells that will pump non-potable water to be stored in agricultural reservoirs and used for irrigation. The use of the agricultural wells will require a ground water use permit from the CWRM since the water would be drawn from the Waikapu Aquifer, which has been designated by the CWRM as a Ground Water Management Area.
- Recycled wastewater from WCT's wastewater reclamation facility.

As is shown in Table 1, it is expected that should surface and groundwater permits be issued by the CWRM, sufficient non-potable irrigation water will be available to irrigate the agricultural lands as well as the urban and rural open space lands.

Table 1: WCT's Potential Non-Potable Water Supply Versus its Projected Demand for Non-Potable Irrigation

Non-Potable Water Source	Estimated Historical Supply in MGD	Estimated Future Supply in MGD	Estimated WCT Demand in MGD	Surplus / Deficit in MGD

Non-Potable Water Source	Estimated Historical Supply in MGD	Estimated Future Supply in MGD	Estimated WCT Demand in MGD	Surplus / Deficit in MGD
Ditch Water[1]	5.82[2]	5.82		
Pumped Well Water	N/A	Unknown		
Reclaimed Wastewater	N/A	.650		
TOTAL	5.82	6.47	3.42[3]	+3.05

Section 4.D.4 of the FEIS has been updated to address your comments.

2. The proposed urban and rural development will be bound by agricultural lands along the Project's southern and western boundaries. This is a common pattern of development in Hawaii. Historically, villages and small towns were established throughout Hawaii to support the pineapple, sugar and livestock industries. These agricultural land uses invariably came into close proximity of agricultural operations. In comparison to sugarcane, it is expected that air pollution emissions will be significantly reduced. Unlike sugarcane, there will be no burning of the sugarcane fields every two years, and there would be no large sugarcane haul trucks generating significant amounts of fugitive dust. Moreover, it is expected that much of the agricultural areas are expected to engage in and promote organic farming, which may reduce or prohibit pesticide use.

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[1] WCT's future use of ground water from the Iao and Waikapu Streams will require the issuance of a Surface Water Use Permit from the Commission on Water Resources Management. These permit requests have been filed but not yet issued.

[2] Based upon a water duty of 5408 gallons per acre per day (GAD). In the Na Wai Eha IIFS proceedings, the Commission on Water Resources Management determined that this was a reasonable daily water use requirement for sugarcane cultivation.

[3] Assumes a demand for 2.75 mgd to irrigate 1077 acres of agricultural lands based upon a water duty of 3400 GAD for diversified agriculture. This is the application rate used by the State Department of Agriculture for diversified crops. The estimate assumes that 75 percent of the crop land is being irrigated at any given time (1077*.75)*3,400 ≈ 2.75 MGD. Urban open space demand for non-potable irrigation water is estimated to be about 0.67 mgd.

In addition, the bulk of the WCT's agricultural preserve is located to the south of the WCT's urban development. This allows for the predominant northeast trade winds to carry dust and any agricultural chemicals or pesticides away from the proposed development. However, during Kona or southwest winds, agricultural dust and chemical emissions could be carried over the Project's residential areas. The proposed elementary school is located approximately one-mile to the northeast of the agricultural fields. The closest residential and rural residences are located in close proximity to WCT's agricultural lands.

Airborne dust generated by agricultural activities can cause nuisance and health impacts to neighboring residences if not property mitigated through BMPs. Likewise, the improper application of pesticides may cause drift that could negatively impact environmental and human health. The Applicant will work closely with its farmers to develop appropriate BMPs to help mitigate airborne dust and chemical drift from potentially impacting neighboring land uses. BMPs that are often implemented by farmers to mitigate dust and pesticide drift include:

- Instituting a dust and chemical drift education and management program to ensure that farmers are properly trained in BMP's that can reduce airborne emissions from their activities.
- Establishing suitable buffer zones between agricultural lands where pesticides might be applied and sensitive environments that could be negatively impacted.
- Establishing windbreaks to capture windblown emissions and to slow the movement of wind.
- Conducting spraying and other nuisance related activities when winds are blowing away from sensitive environments and limiting spraying to periods of low wind speeds to reduce drift distance.
- Ensuring that nozzles used in the application of pesticides and/or herbicides produce the largest or coarsest size droplets possible.
- Encouraging the use of the lowest end of the pressure range when spraying pesticides.
- Following all pesticide application procedures as directed on the product labels.

- Using drift control additives, when needed, to increase the size of droplets in order to reduce drift.
- Limiting vehicle speeds on unpaved access roads within the agricultural area.
- Directing recreation uses, such as off-road biking, hiking and jogging, to the perimeter of agricultural areas where chemical drift would not be a concern.

The Applicant is committed to establishing an agricultural preserve that is farmed in a manner that reduces potential impacts to human health and sensitive environmental resources through the implementation of strong education and management programs focused upon implementing BMPs to reduce potential agricultural nuisances. Section V.A.7 of the FEIS has been updated to address your comments.

3. ***Development Mitigation Measures.*** The Applicant is implementing Low Impact Development initiatives in the areas of water conservation, energy use, stormwater management and recycling. The Applicant will also consider developing a composting facility within the development, which might significantly benefit the farmers operating within the Project's Agricultural Preserve. Sections III.B.6 and Sections V.C.6 and V.D.3, 4, and 5 have been updated to address your comments.

4. ***Infrastructure Improvements.*** The WCT site and urban design plan facilitates multi-modal transportation and it is anticipated that many residents will walk and bicycle throughout the development. The Honoapiilani Highway traverses through the center of the development. While the Highway facilitates vehicular ingress and egress into the project, the scale of this facility could create a barrier for pedestrians and bicyclists that desire to travel between the mauka and makai neighborhoods. Section III.B.3.e of the FEIS addresses pedestrian and bicycle crossings of the Honoapiilani Highway.

5. ***Anticipated Climate Change.*** As noted in the DEIS, the Project will not have a significant impact upon climatic conditions. However, in order

to contribute to a cleaner environment and to mitigate greenhouse gas emissions, the Applicant is committed to designing a community that relies less upon vehicular modes of transportation and incorporates energy efficient building design, materials and fixtures into the development. The Applicant also intends to develop on-site renewable energy to help off-set the Project's demand for fossil fuels, diversify Project revenues, and reduce electricity costs for WCT businesses and residents.

The Applicant understands that climatic change may produce unforeseen impacts, such as an increase in tropical storm intensity, rising temperatures, and greater fluctuations in rainfall, which could lead to more intense flooding and drought conditions. In response, all housing will be constructed in compliance with building codes and the County's flood hazard ordinance. Section IV.A.I of the FEIS has been updated to address your comments.

The FEIS will include all agency comment letters and Applicant responses within the Appendix. Changes to the written text of the FEIS will be properly identified. The document will be organized to enhance readability.

Thank you very much for your interest in this important Central Maui project. Should you have any questions, please contact me at (808) 269-6220 or by e-mail at msummers@planningconsultantshawaii.com.

Sincerely yours,

Michael J. Summers
President

Attachment
c: Mr. Michael Atherton
Mr. Albert Boyce

21. State of Hawaii, Office of Hawaiian Affairs

PHONE (808) 594-1888

FAX (808) 594-1938

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
560 N. NIMITZ HWY., SUITE 200
HONOLULU, HAWAI'I 96817

HRD16-7503B

March 24, 2016

Michael J. Summers, President
Planning Consultants Hawai'i, LLC
2331 W. Main Street
Wailuku, HI 96793

Re: Request for Comments on the Draft Environmental Impact Statement for the District Boundary Amendment for the Waikapū Country Town
Waikapū Ahupua'a, Pū'ali Komohana Moku, Maui Mokupuni
Tax map key (2) 3-6-002:001, (2) 3-6-002:003, (2) 3-6-004:003, (2) 3-6-004:006, (2) 3-6-005:007, and (2) 3-4-006:036

Aloha Mr. Summers:

The Office of Hawaiian Affairs (OHA) is responding to the open comment period for the draft environmental impact statement (DEIS) for the district boundary amendment (DBA) for the Waikapū Country Town (WCT). The applicant is Planning Consultants Hawai'i, LLC on behalf of Waikapū Properties, LLC (Applicant).

OHA did not receive any correspondence notifying us that the DEIS was available for review despite our past response to the environmental impact statement preparation notice for this project, by letter dated June 25, 2015. In the future, we ask to be notified that documents are available for review.

OHA is the constitutionally established body responsible for protecting and promoting the rights of Native Hawaiians. Hawai'i law mandates OHA to "[s]erve as the principal public agency in the State of Hawai'i responsible for the performance, development, and coordination of programs and activities relating to native Hawaiians and Hawaiians; . . . and [t]o assess the policies and practices of other agencies impacting on native Hawaiians and Hawaiians, and

conducting advocacy efforts for native Hawaiians and Hawaiians." Hawai'i Revised Statutes (HRS) § 10-3.

The following comments reflect OHA's responsibility to better the conditions of Native Hawaiians and are specifically intended to maximize the benefits to our beneficiaries.

Project Description

The WCT is a mixed-use residential community project on approximately 1,576 acres, of which 499 acres will encompass the WCT project and the remaining 1,077 will remain agricultural. The project site will include commercial space, an elementary school, park and open space areas, agricultural lands, and 1,433 residential units plus 146 'Ohana units. The residential units are divided among 970 single-family, 256 multi-family/town-home, 80 rural, and 127 country town mixed-use.

The project site is currently designated as an agricultural district by the State of Hawai'i Land use Commission (LUC), zoned by the Maui County as agricultural, and designated as a planned growth area in the Maui Island Plan. In order to comply with state and county laws, the applicant is requesting a district boundary amendment to the LUC.

Agricultural Lands

The Applicant is requesting a change in classification for 485 of the 499 acres that are in the State of Hawai'i agricultural district and Maui County agricultural zoning. The remaining 14 acres are designated urban. The entire 499-acre area is designated as a planned growth area in the Maui Island Plan, published in December 2012.

OHA previously commented on the EIS preparation notice by letter dated June 25, 2015, expressing concerns over the Applicant's request to reclassify 485 acres of agricultural lands as urban without proposing mitigation efforts. In reviewing the DEIS, the Applicant identified several mitigation efforts proposed for the loss of agricultural lands: (1) 800 acres of agricultural land will be permanently dedicated to agricultural use; (2) a reduction in the number of large agricultural farm lots to five from nine; (3) allowing current commercial farmer leaseholders to continue their activities on the agricultural lands; and (4) readjusting the development plans allowing the two Mahi 'Ohana kuleana parcels to be placed within the agricultural lands.

OHA appreciates these mitigation efforts, as all agriculturally designated lands play an important role in supporting the State of Hawai'i's food self-sufficiency goals, including the Aloha+ Challenge target of doubling local food production by 2030.

The project site is categorized as Agricultural Lands Important to the State of Hawai'i, and designated as having soil classifications of "A" or "B" by the University of Hawai'i Land Study Bureau. The WCT agricultural lands are of very high quality and an important resource to the State of Hawai'i. OHA remains concerned that urbanization of high quality agricultural lands reduces the state's ability to meet its own self-sufficiency goals, and may also run counter

OHA's strategic goals to increase sustainable land management practices. At the same time, OHA understands that 485 acres of the 1,576 overall agricultural acres are proposed to be reclassified as urban, and that approximately 1,077 acres will remain in agricultural use. The 1,077 are further split with 800 acres permanently dedicated to agricultural use with no residential structures permitted, and 277 acres subdivided into five large agricultural lots where farm dwellings will be permitted.

The agriculture-designated lands will be used by commercial farmers, and developed as a public and private agricultural park. Currently there are three commercial farms on the land, Kumu Farms, Hawai'i Taro, LLC, and Hawaiian Commercial & Sugar Company.[1] The companies will be relocated to the agricultural district within WCT, where they can continue their business.

Walking Community

OHA appreciates the Plan's emphasis on supporting non-automotive travel such as pedestrian and bike use within the community, and transit use for trips both within and outside the community.

One of OHA's strategic priorities is Mauli Ola (Health), which represents our commitment to improve the conditions of Native Hawaiians and quality of life by reducing the onset of chronic diseases. In furtherance of this priority, and in line with Act 155 (Reg. Sess. 2014) and HRS § 226-20, we particularly support a public health approach that takes a holistic and systemic view in addressing obesity in Hawai'i's communities, *e.g.*, through the social determinants of health. Community design, including complete streets designed for pedestrians, bicyclists, transit users, motorists, and persons of all ages and abilities, is one of the social determinants of health. Conversely, improper community design is well-documented as a major contributing factor to disproportionate chronic and co-morbid disease rates of a community's residents.

OHA notes that HRS §226-20 requires all state agencies to strive for the elimination of the health disparities of Native Hawaiians and other communities, by identifying and addressing social determinants of health. This includes prioritizing interventions, such as walkable communities, that address the social determinants of health.

Affordable Housing

OHA appreciates that WCT will include workforce affordable homes in the project. We understand the need for affordable housing, as one of OHA's strategic priorities focuses on improving Native Hawaiians' economic self-sufficiency, centering its efforts on two critical goals: increasing homeownership and increasing family income in Native Hawaiians.

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[1] Alexander & Baldwin announced in January 2016 that Hawaiian Commercial & Sugar Company (HC&S) will be transitioning into a new model over a multi-year period. The DEIS was completed prior to this announcement, therefore it is not clear whether HC&S will continue their presence in WTC.

Water

The DEIS states that five ground water wells have been drilled by the Applicant. Three wells will be used for potable water, while the remaining two are for non-potable water to service the agricultural parcels. It is not clear from the information provided how these wells will affect the Waikapū aquifer and surface water stream flows. Concerns were expressed by community members during the cultural impact assessment (CIA) as to the effect upon Waikapū aquifer and stream as more nearing developments continue to use the two water resources.

OHA asks that Applicant adhere to the guidelines set forth by the State Commission on Water Resource Management, and that any effect on Waikapū Stream not affect the flow and habitat enhancing characteristic in accordance with the Nā Wai ʻĒha settlement agreement.[2]

Archaeological and Historical Resources

An archaeological inventory survey (AIS) of the proposed project site was completed by Archaeological Services Hawaiʻi, LLC in September 2013. The land survey consisted of a pedestrian survey and subsurface exploration through 150 backhoe trenches. No cultural remains were found through the subsurface testing, but the pedestrian survey found four historic sites,[3] significant under Criterion D.

OHA does request assurances that should iwi kūpuna or Native Hawaiian cultural deposits be identified during any ground altering activities, all work in the area will immediately cease and the appropriate agencies, including OHA, will be contacted pursuant to applicable law.

Mahi Kuleana Parcels

The CIA was prepared by Hana Pono, LLC in January 2014. During interviews with community members, two kuleana parcels were identified. The parcels are situated within tax map key (TMK) (2) 3-6-004:003, and each lot is identified as TMK (2) 3-6-005:009 and (2) 3-6-005:010. Applicant has modified their development plan to go around the two parcels and assure that they are situated within the agricultural designated lands. OHA appreciates and encourages future collaboration between the Mahi ʻOhana and Applicant to assure the protection of the kuleana parcels.

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[2] On June 25, 2004, Hui O Nā Wai ʻĒha (Hui) and Maui Tomorrow Foundation, Inc. (MTF) filed a Petition to Amend the Interim Instream Flow Standards (IIFS) for the Waiheʻe River and the Waiehu, ʻĪao, and Waikapū Streams. The State of Hawaiʻi Commission on Water Resource Management (CWRM) released its final Findings of Fact, Conclusions of Law, and Decision and Order on June 10, 2010. OHA joined the Hui and MTF in appealing the CWRM decision in 2010. In August 2012, the Hawaiʻi Supreme Court vacated the CWRM decision and remanded the case to CWRM for further proceedings. A settlement agreement between the parties was finalized on April 17, 2014.

[3] State Inventory of Historic Places Site 5197 Waiheʻe Ditch; Site 7881 concrete lined ditches, sluice gates, and culverts; Site 7882 L-shaped retaining wall; Site 7883 World War II bunker; and Site 7884 trash pit.

Mahalo for the opportunity to comment. Should you have any questions, please contact Jeannin Jeremiah at 594-1790 or by email at jeanninj@oha.org.

'O wau iho nō me ka 'oia 'i'o,

Kamana'opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer

KC:jj

C: Carmen Hulu Lindsey – OHA Trustee, Maui Island
Thelma Shimaoka - OHA Community Outreach Coordinator, Maui Island

**Please address replies and similar, future correspondence to our agency:*
Dr. Kamana'opono Crabbe
Attn: OHA Compliance Enforcement
560 N. Nimitz Hwy, Ste. 200
Honolulu, HI 96817

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December 12, 2016

Mr. Kamana`opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer
State of Hawaii
Office of Hawaiian Affairs
560 N. Nimitz Hwy., Suite 200
Honolulu, Hawaii 96817

Dear Mr. Crabbe:

Re: **Draft Environmental Impact Statement** Prepared for the Proposed Waikapu Country Town Project in Waikapu, Maui, Hawaii; TMK Nos: (2) 3-6-002:001, (2) 3-6-002:003, (2) 3-6-4:003, (2) 3-6-004:006, (2) 3-6-005:007 and (2) 3-6-006:036.

Thank you for your letter dated March 24, 2016, regarding the Draft Environmental Impact Statement (DEIS) prepared for the above-referenced project. We understands that you did not receive correspondence notifying your office that the DEIS was available for review. Please note that our records indicate that the document was mailed to 711 Kapiolani Blvd., Ste. 500, which we understand is a dated address. We are sorry for any inconvenience this may have caused, and are pleased that you were able to review the DEIS and provide comments is a very timely manner. In response to your comments, please find the following responses:

- *Agricultural Lands.* The Applicant understands your office's sensitivity to the protection of productive agricultural lands and acknowledges your appreciation of the mitigation measures proposed by the Applicant. We are confident that by deeding these highly productive and strategically located lands for long-term agricultural production, providing access to reliable irrigation water, and facilitating the on-going activities of the WCT's

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msummers@planningconsultantshawaii.com

experienced professional farmers that the WCT will contribute to the State's self-sufficiency goals and OHA's strategic goals to increase sustainable land management practices.

- ***Walking Community***. Developing a multi-modal community is an important design objective for the Applicant. The Applicant appreciates your acknowledgement that community design is one of the social determinants of health, while poor community design contributes to poor community health.

- ***Water***. It is anticipated that the Project will be serviced by at least three (3) potable wells and non-potable irrigation wells. The irrigation wells will be used for agricultural uses and to irrigate the Project's open spaces and park lands. Other sources of non-potable irrigation water will include reclaimed R-1 and R-2 quality water from the Project's wastewater treatment facility. The Applicant is also in the process of requesting an allocation of surface water from the Iao Stream via the Iao-Waikapu Ditch and Waikapu Stream via the South Waikapu Ditch and Waihee Ditch. The use of this ground water will require the issuance of a permit from the CWRM before the surface water can be used for non-potable irrigation. Likewise, before water can be drawn from the Waikapu Aquifer and used for the WCT's urban development, permits must be issued by the CWRM since the aquifer is within a Special Ground Water Management Area.

  The Applicant will work with the CWRM to ensure that the Applicant's use of the Waikapu Aquifer and the Iao and Waikapu streams is in accordance with State water policy and regulatory requirements. The WCT is also working closely with neighboring Kuleana farmers, and with State agencies including the CWRM, to ensure that riparian rights are adequately addressed and that the aquatic habitat of the Waikapu Stream is protected from overuse. Section V.D.4 has of the FEIS has been updated to address your comments.

- ***Archaeological and Historical Resources.*** The Applicant understands that should iwi kūpuna or Native Hawaiian cultural

deposits be identified during any ground altering activities, all work in the area will immediately cease and the appropriate agencies, including OHA, will be contacted pursuant to State law.

- ***Mahi Kuleana Parcels.*** As documented in the DEIS and in the Cultural Impact Assessment (CIA), the Mahi kuleana parcels are located outside of the area proposed for urban and rural development. These parcels will remain within the State Agricultural District. The Applicant intends to engage in future collaboration with the Mahi 'Ohana to assure protection of the Kuleana parcels.

Thank you very much for your interest in this important Central Maui project. Should you have any questions, please contact me at (808) 269-6220 or by e-mail at msummers@planningconsultantshawaii.com.

Sincerely yours,

Michael J. Summers
President

Attachment
c: Mr. Michael Atherton
Mr. Albert Boyce

22. State of Hawaii, Department of Business Economic Development and Tourism, Office of Planning

OFFICE OF PLANNING
STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

LEO R. ASUNCION
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Ref. No. P-15087

March 28, 2016

Mr. Michael J. Summers, President
Planning Consultants Hawaii LLC
2331 W. Main Street
Wailuku, Hawaii 96793

Dear Mr. Summers:

Subject: Draft Environmental Impact Statement, Waikapu Country Town
LUC Docket No. A15-798, Waikapu Properties, LLC et al
TMK: (2) 3-6-002:001, 003; (2) 3-6-004:003, 006;
(2) 3-6-005:007, and (2) 3-6-006:036
Wailuku, Maui, Hawaii

Thank you for the opportunity to review the subject Draft Environmental Impact Statement (EIS) for Waikapu Country Town.

The project area encompasses approximately 1,576 acres, of which approximately 485 acres would be reclassified from the State Agricultural District to the State Urban and Rural Districts for a mixed-use residential community. Approximately 1,077 acres of the project area would remain in the State Agricultural District, and of those lands, approximately 800 acres would be permanently protected through a conservation easement, as an Agricultural Preserve. The remaining 14 acres of the project are already classified as State Urban and are utilized by the Maui Tropical Plantation. The Urban and Rural components of the project will include 1,433 residential units, in addition to 146 ohana units, neighborhood retail, commercial, an elementary school, parks, and open space.

The Office of Planning (OP) offers the following comments on the subject Draft EIS.

1. **Proposed District Reclassification Boundaries.** The description of the project in Chapter I does not clearly identify which lands are proposed for reclassification to the State Urban District and which lands are proposed for reclassification to the State Rural District. Please clarify in text and graphics the proposed district reclassification boundaries in the Final EIS.

2. **Housing.** We understand that the project will comply with the County's workforce housing ordinance, which is enumerated in Chapter 2.96, MCC. We also note that

Hawaii Administrative Rules, § 15-15-50 (c)(8) provides that a petition for district boundary amendment shall include a "statement of projected number of lots, lot size, number of units, densities, selling, price, intended market, and development timetables." Accordingly in the Final EA, please describe how the proposed project will comply with the ordinance and LUC rules, particularly how the project's proposed residential product types will be allocated among the market and various affordable housing target populations (income groups), the number of each housing type, the expected price ranges for the different product types, and the assumed household sizes of the housing types.

3. **Water Resources.** It is unclear whether there is sufficient potable and non-potable water available to meet the projected average daily water demand for Phases I and II. Please clarify in the Final EA relative to applicable water sources, surface water and aquifer sustainable yields and current withdrawals. Please also state whether the proposed project is within a designated Water Management Area; the permits or other approvals required for proposed water source use; and the consistency of the project and impact of the project in terms of proposed water use and system improvements and priorities contained in the county water use and development plan, prepared pursuant to the State Water Code, HRS Chapter 174C.

4. **Agricultural Lands.**
   - We understand that the specific details of the agricultural conservation easement are still being considered, however, we expect that the Final EA or district boundary amendment petition submittal will include a discussion of how the easement will be implemented and managed.
   - Page III-34 of the Draft EA states that the conservation easement will only allow agricultural subdivisions which serve the purpose of creating agricultural enterprises. In order to prevent the occurrence of non-agricultural uses within the proposed Agricultural Preserve, please provide a definition of "agricultural enterprises" in the Final EIS.
   - The Conceptual Agricultural Master Plan on page III-37 indicates that renewable energy facilities (or solar farms, according to page III-36) may be located within the Agricultural Preserve. OP notes that the proposed location of the solar farms appears to be on soils rated "A" and "B" by the Land Study Bureau Detailed Land Classification system. We further note that solar energy facilities are allowed on "B" rated lands with conditions and restrictions, and are allowed under very narrowly-defined circumstances on "A" rated agricultural lands. Please discuss the applicable restrictions on solar energy facilities in the Agricultural District and required permitting and/or consider modifying the Agricultural Master Plan accordingly.
   - Additionally, we encourage the Petitioner to require in the conservation easement agreement that the proposed solar farms be accessory to agricultural activities.

5. **Wastewater Treatment and Disposal.** Page V-92 states that the [Petitioner] will need to construct a stand-alone private wastewater treatment facility, or partner with other projects in the Waikapu area, such as A&B's Waiale project or the County of Maui to construct a regional wastewater treatment facility. The Draft EA further states that the [Petitioner] is analyzing several package wastewater treatment options. If this becomes known before preparation of the Final EA, please provide information about the wastewater system selected, specifically the type of plant to be used, permitting requirements, plans for reuse and/or disposal of treated effluent and waste solids, and how the private system will be operated and maintained.

6. **Schools.**
   - In a letter from the Department of Education (DOE) dated June 5, 2015, the DOE states that [the Petitioner] is strongly encouraged to meet with the DOE, Facilities Development Branch to negotiate and execute an Educational Contribution Agreement (ECA) before county entitlements are sought. The Draft EA, however, does not include mention of an ECA with the DOE. In the Final EA, please include a discussion regarding the status of the ECA with the DOE.
   - The table on page V-62 indicates that the Petitioner will pay to the DOE approximately $2,600,000 in impact fees for construction costs. This value, however, is based only on the development of the single family and multi-family units, totaling 1,433 units, and does not include the 146 ohana units proposed.
   - The Maui Island Plan states that the [Waikapu Country Town] planned growth area...will have a mix of single-family and multifamily rural residences, park land, open space, commercial uses, and an elementary or intermediate school developed in coordination with the Waiale project (page 8-9). In the Final EA, please describe how the Petitioner is coordinating the development of the proposed elementary school with the Waiale project.
   - We recommend that school facilities be added to the unresolved issues list in Chapter I.

7. **Waiale Bypass Road.** Pursuant to page VI-13 of the Draft EA, the Waiale Bypass Road is identified in the County's FY2016 CIP for funding between 2017 and 2021, but the precise schedule for funding and development of this roadway is uncertain at this time. Pursuant to page 4 of the TIAR, primary access to the proposed development would be provided via Honoapiilani Highway and the Waiale Bypass Road. Given the significance of the bypass road for efficient circulation in the area, the Final EA should identify when the bypass road will be completed to ensure that mitigation coincides with the development of the proposed project.

8. **Other Comments:**
    - A map showing the proposed State Land Use District Boundary Amendments and acreage reclassifications should be provided in the Final EIS.
    - All maps should include a legible scale, a north arrow, and a legend. Maps should also be in color whenever possible. The Land Study Bureau Map on page V-39, in particular, should be in color in order to accurately determine soil ratings within the project area.
    - The Table of Contents indicates that the ALISH Map is included as Figure 37 on page V-40, however there is no ALISH Map in the Draft EA; it appears that the Land Study Bureau Map was accidentally added in its place. Please reconcile this in the Final EIS.
    - The digital version of the Final EIS document should be PDF-bookmarked in its entirety. All chapters, subchapters, appendices and comment letters should be bookmarked for easier access.

The responsiveness of the project and proposed petition to concerns identified in the environmental review process will influence OP's evaluation of the acceptability of the Final EIS and development of the State's position on the proposed petition.

Thank you for the opportunity to review this project. If you have any questions please call Katie Mineo of our Land Use Division at (808) 587-2883.

Sincerely,

Leo R. Asuncion
Director

c: Land Use Commission

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December 12, 2016

Mr. Leo R. Asuncion
Director
Office of Planning
State of Hawaii
Department of Business Economic Development
and Tourism
P.O. Box 2359, Honolulu, HI 96804

Dear Mr. Asuncion:

Re: **Draft Environmental Impact Statement** Prepared for the Proposed Waikapu Country Town Project in Waikapu, Maui, Hawaii; TMK Nos: (2) 3-6-002:001, (2) 3-6-002:003, (2) 3-6-4:003, (2) 3-6-004:006, (2) 3-6-005:007 and (2) 3-6-006:036.

Thank you for your letter dated March 28, 2016, regarding the Draft Environmental Impact Statement (DEIS) prepared for the above-referenced project. In response to your comments, please find the following:

1. ***Project District Reclassification Boundaries.*** Section I.C.9 of the FEIS has been incorporated into the report to include a clear description in text and exhibits of the lands proposed for reclassification to the State Urban and Rural Districts.

2. ***Housing.*** Sections III.B.1, 7 and V.B.2 of the FEIS document the Project's compliance with MCC, Chapter 2.96, "Residential Workforce Housing Policy" and Hawaii Administrative Rules § 15-15-50 (C) (8), which requires that a District Boundary Amendment Application document the number of lots, lot size, number of units, densities, selling price, intended market and development timetables.

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msummers@planningconsultantshawaii.com

3. ***Water Resources.*** Potable water for the Project will be from on-site wells drawing water from the Waikapu Aquifer. The potable water demand for the Project, not including irrigation of urban open space, is estimated to be 968,000 gallons per day, whereas the Waikapu Aquifer has a sustainable yield of 3 million gallons per day. The Waikapu Aquifer has been designated by the Commission on Water Resource Management as a Ground Water Management Area. Before drawing water from the Aquifer, a ground water use permit will be required from the Commission on Water Resource Management (CWRM), which has regulatory jurisdiction over the aquifer.

   Irrigation of the Project's proposed urban and rural open spaces and irrigation of the Project's agricultural lands is proposed from the following sources:

   - Surface water from the Iao Stream via the Iao-Waikapu Ditch and Waikapu Stream via the South Waikapu Ditch and Wäihee Ditch. These water sources, which are part of the larger surface water system known as the "Na Wai Eha", have been designated by the CWRM as a Surface Water Management Area. Before drawing water from the Na Wai Eha, a surface water use permit will be required from the CWRM, which has regulatory jurisdiction over the Na Wai Eha.

   - Agricultural wells that will pump non-potable water to be stored in agricultural reservoirs and used for irrigation. The use of the agricultural wells will require a ground water use permit from the CWRM since the water would be drawn from the Waikapu Aquifer, which has been designated by the CWRM as a Ground Water Management Area.

   - Recycled wastewater from WCT's wastewater reclamation facility.

As is shown in Table 1, it is expected that should surface and groundwater permits be issued by the CWRM, sufficient non-potable irrigation water supply will be available to irrigate the Project's urban and rural open spaces as well as the Project's 1,077 acres of agricultural lands.

Table 1: WCT's Potential Non-Potable Water Supply Versus Its Projected Non-Potable Irrigation Demand

Non-Potable Water Source	Estimated Historical Supply in MGD	Estimated Future Supply in MGD	Estimated WCT Non-Potable Demand in MGD	Surplus / Deficit in MGD
Ditch Water[1]	5.82[2]	5.82		
Pumped Well Water	N/A	Unknown		
Reclaimed Wastewater	N/A	.650		
TOTAL	5.82	6.47	3.42[3]	+3.05

Section V.D.4 of the FEIS has been updated to address your comments.

4. *Agricultural Lands.* As noted in the DEIS, the WCT's agricultural lands will comprise approximately 1,077 acres. Eight hundred of these acres will be set aside to create an Agricultural Preserve. The Agricultural Preserve will be dedicated in perpetuity to

[1] WCT's future use of ground water from the Iao and Waikapu Streams will require the issuance of a Surface Water Use Permit from the Commission on Water Resources Management. These permit requests have been filed but not yet issued.

[2] Based upon a water duty of 5408 gallons per acre per day (GAD). In the Na Wai Eha IIFS proceedings, the Commission on Water Resources Management determined that this was a reasonable daily water use requirement for sugarcane cultivation.

[3] Assumes a demand for 2.75 mgd to irrigate 1077 acres of agricultural lands based upon a water duty of 3400 GAD for diversified agriculture. This is the application rate used by the State Department of Agriculture for diversified crops. The estimate assumes that 75 percent of the crop land is being irrigated at any given time (1077*.75)*3,400 ≈ 2.75 MGD. Urban open space demand for non-potable irrigation water is estimated to be about 0.67 mgd.

agricultural conservation once all of the entitlements for the WCT's proposed urban and rural lands are granted in accordance with the WCT Master Plan development as described in Section III.B of the FEIS.

The agricultural conservation easement will prohibit the development of farm dwellings and/or residential dwellings of any kind, including farm labor dwellings, within the Preserve. However, it is planned that any other agricultural use, agricultural accessory uses or special uses as permitted by Hawaii Revised Statutes (HRS), Chapter 205 and Maui County Code (MCC), Chapter 19.30A will be permitted within the Agricultural Preserve. The underlying State Land Use Designation and County Zoning of the property will not be changed by the conservation easement, except that dwellings units will be prohibited.

Once established, the Agricultural Preserve will be managed by the existing ownership entities; or it will be managed by a separate entity with the specific responsibility for the management and operations of the Preserve. Agricultural enterprises would be any business or non-profit entity engaged in any permitted agricultural and/or special use approved pursuant to HRS, Chapter 205 and/or Maui County Code Chapter 19.30A, except that "farm dwellings", as defined in HRS Chapter 205, or any other type of residential dwellings including "farm labor dwellings", would not be permitted within the Agricultural Preserve.

The Applicant is aware that HRS Chapter 205 contains conditions and restrictions on the use of solar energy facilities within the State Agricultural District. The Applicant acknowledges that the Agricultural Preserve, as well as the WCT's other agricultural lands, will be subject to these restrictions. As such, any development of solar energy facilities will be done in accordance with these restrictions. As is documented in the DEIS, the Applicant desires to offset some of the Project's energy demand by developing on-site renewables. Developing a limited amount of on-site renewable energy within the Agricultural Preserve, as well as on the Project's other agricultural lands, will help to protect the

environment by mitigating carbon emissions and will contribute to Hawaii's energy self-sufficiency. On-site renewables will also create an additional revenue source that can be derived from the use of the Project's agricultural lands. It is important to note that a considerable amount of the Applicant's agricultural land is designated "A" by the Land Study Bureau and that these lands will not be impacted solar facilities. Any solar facilities developed would be limited to "B" lands and the acreages developed will likely be significantly less that what would be permitted pursuant to HRS Chapter 205. Sections III.B.5 and I.A.7 of the FEIS have been updated to address your comments.

- ***Private Wastewater Treatment Plant.*** Section V.D.5 of the FEIS has been updated to include a thorough description of the WCT's preferred wastewater treatment plant design, alternatives considered, permitting requirements, wastewater reuse, facility management and operations.

- ***Schools.*** The Applicant is in the process of finalizing an Educational Contribution Agreement (ECA) with the Department of Education. The Agreement will document the cash and land contribution required of the Applicant. During pre-consultation meetings with the DOE, the Applicant was informed by the DOE's Facilities Development Branch that an elementary school would be developed on the property and that an intermediate school will be developed within Waiale. Since the precise timing of the facility is beyond the Applicant's control, and the ECA has not yet been finalized, the school facility will be added to the unresolved issues list in Section I.8 of the FEIS.

- ***Waiale Bypass Road.*** The Traffic Impact Analysis Report (TIAR) presented in the DEIS had assumed that the Waiale Bypass road would be constructed by 2022. This was a reasonable assumption because the bypass roadway was identified in the County's FY 2016 5-year Capital Improvement Program, the County's Department of Public Works had prepared a Final Environmental Assessment for the Bypass that it completed in July 2014, and during pre-consultation meetings with County and State agencies it was

generally acknowledged that the bypass roadway would be constructed.

However, the Waiale Bypass improvement was recently removed from the County's FY 2017 5-year Capital Improvement Program. Moreover, in response to the DEIS, the County's Department of Public Works informed the Applicant that the timing of the roadway was uncertain. As such, the Applicant has conducted a separate analysis that addresses the impact of the Project at full build-out without the Waiale Bypass road. This analysis has been incorporated into Section V.D.1 of the FEIS.

The WCT's FEIS can be downloaded from the State Office of Environmental Quality Control's (OEQC's) website and the State Land Use Commission's website. The document may also be downloaded from www.waikapu.com. Thank you very much for your interest in this important Central Maui project. Should you have any questions, please contact me at (808) 269-6220 or by e-mail at msummers@planningconsultantshawaii.com.

Sincerely yours,

Michael J. Summers
President

Attachment
c: Mr. Michael Atherton
Mr. Albert Boyce

23. Mr. Richard “Dick” Mayer

TO: Applicant: Mr. Michael Atherton (209) 601-4187 coachpea20@sbcglobal.net
Waikapu Properties, LLC,
1670 Honoapiʻilani Highway Wailuku, HI 96793,
Consultant: Mr. Michael Summers (808) 269-6220 msummers@planningconsultantshawaii.com
Planning Consultants Hawaii, LLC,
2331 W. Main Street Wailuku, HI 96793,
Approving Agency: Mr. Daniel Orodenker (808) 587-3822
State of Hawaiʻi, Land Use Commission,
Department of Business, Economic Development and Tourism,
P.O. Box 2359, Honolulu, HI 96804-2359

From: Richard "Dick" Mayer dickmayer@earthlink.net
1111 Lower Kimo Dr.
Kula, Maui HI 96790

March 28, 2016

RE: **Waikapū Country Town Draft-EIS**

Initial Comment: After analyzing over 100 Draft-EIS documents over 40 years, I can honestly say that this may be the best, most comprehensive, and honest Draft-EIS that I have read. However, a significant assumption has been made and I do not believe it is accurate. It relates to **the expected population** of the completed Waikapu Country Town project.

There are numerous places in the Draft-EIS which use a total population figure of 3,511. However, I could find only one location in the entire three volume Draft-EIS where a potential population number is attempted to be calculated. It is based on the number of residential units that are being proposed. It is found in Volume 3, Appendix A, on PDF page 74. (See attachment on Page 3.)

The entire 3 volume Draft EIS relies on this number, calculated on PDF page 74. However, I believe that there is a significant error in the population calculations. Consequently, the whole Draft-EIS and all of the appendices (the entire document) are potentially in error!

Many of the potential impacts and all the infrastructure is dependent on the population calculations from Appendix A. For example, this population number is incorrectly used to calculate the number of students that will be going to school (school impacts). Also in potential error is the traffic TIAR report, the amount of solid waste, wastewater, water needs, etc. All of these are affected if the population figures that were calculated in Appendix A are incorrect.

How are they in error?

1. The number of potential ohana units is severely underestimated at a level of 146 units in a community of 1,050 single family residences. It can reasonably be expected that there may be as many as 400 to 500 ohana units, significantly increasing impacts. A drive around Kahului or Maui Lani at 7pm will show the fact that there are on average many more than 2 cars parked in front of most homes.

2. Appendix A states clearly that even this low number of 146 ohana units has NOT at all been utilized in calculating the expected population, -- those units are totally ignored.

3. There is a reference made (Volume 3, Appendix A, on bottom of PDF page 12) to the potential addition of 300 affordable houses being added to the project as a 201-H project. Although requirements for a 201-H project may be minimal, those three hundred (300) additional "affordable" homes, presumably with many children, will certainly have a significant impact on school enrollments. Furthermore, the 300 homes will certainly add traffic to each of the intersections and that has NOT been accounted for in the traffic TIAR study.

4. The multipliers for the number of residents in each unit are buried in the footnotes on the table on page PDF 74. Full-timers = 2.6 Part-timers = 3.2
The numbers seem reversed when it states that the full-timers will have a lower number of residents, by comparison to the part-timers. If the number of people in each unit is applied correctly we will see a significantly higher total number in the population totals; and it is that number that should have been used throughout the Draft-EIS.

The cumulative population impact of the above 4 items can be seen here:

	In the Draft-EIS	More Accurate
"Under-represented" ohana units ~300 units @ 3.0	0	900
Intentionally not included 146 ohana units @ 3.0 people/unit	0	438
300 potential 201-H "affordable houses" @ 3.2	0	960
SF + MF "Full-Timers" @ 2.6 (In the Draft-EIS)	3,363	--
SF + MF "Full-Timers" @ 3.2 (Corrected)	--	4,138
SF + MF "Part-Timers" @ 3.2 (In the Draft-EIS)	148	--
SF + MF "Part-Timers" @ 2.6 (Corrected)	--	83
TOTAL ➔	**3,511**	**6,519**
	In the Draft-EIS	More Accurate

Hopefully, the Final-EIS will use accurate population numbers throughout and in all the Appendices.

WAIKAPU COUNTRY TOWN DRAFT-EIS Appendix A PDF page 74

http://oeqc.doh.hawaii.gov/Shared%20Documents/EA_and_EIS_Online_Library/Maui/2010s/2016-02-08-MA-5E-DEIS-Waikapu-Country-Town-Appendices.pdf

TABLE III-4 Exhibit III

ESTIMATED RESIDENT POPULATION, HOUSEHOLD INCOME AND DISCRETIONARY EXPENDITURES
Market Study of the Waikapu Country Town
Waikapu, Maui, Hawaii
All Amounts Expressed in Constant 2015 Dollars

	Development, Sales & Stabilization Period			
	2016 to 2020	2021 to 2025	2026 to 2030	Totals
Number of Units Occupied	**690**	**1,284**	**1,433**	
Single Family Homes	**347**	**901**	**1,050**	
Percent of Total Units	50%	70%	73%	
Multifamily Units	**343**	**383**	**383**	
Percent of Total Units	50%	30%	27%	
Single Family Homes Population - Full-Time Residents (1)	767	1,992	2,321	
Single Family Homes Population - Part-Time Residents (2)	34	88	102	
Multifamily Homes Population - Full-Time Residents (1)	933	1,042	1,042	
Multiamily Homes Population - Part-Time Residents (2)	41	46	46	
Total Full-Time Resident Population	**1,700**	**3,034**	**3,362**	
Total Part-Time Resident Population	**75**	**134**	**148**	
Total De Facto Population	**1,775**	**3,168**	**3,511**	
RESIDENT HOUSEHOLD INCOME (4)				**During Build-Out**
Annually	**$66,133,060**	**$131,257,527**	**$147,857,819**	
Periodic	**$99,199,590**	**$493,476,468**	**$697,788,364**	**$1,290,464,422**
TOTAL DE FACTO POPULATION EXPENDITURES (5)				
Annually (at end of period)	**$35,256,311**	**$69,537,081**	**$78,260,291**	
Periodic	**$52,884,467**	**$261,983,481**	**$369,493,432**	**$684,361,379**

(1) Average household size of 2.60 persons.
(2) Average household size of 3.2 persons.
(4) Single Family households at 175% of Maui household income average, multifamily households at 125% of Maui average.
(5) For full-time residents assumes 15% of gross income for taxes, 30% for housing costs and 5% for utilities. Leaving 50% of gross income as net disposable.
For non-full time residents estimated disposable income at $80 per day (50% above average daily per resident spending of $53).

Source: The Hallstrom Group/CBRE

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December 12, 2016

Mr. Richard "Dick" Mayer
1111 Lower Kimo Drive
Kula, Maui HI 96790

Dear Mr. Mayer:

Re: **Draft Environmental Impact Statement** Prepared for the Proposed Waikapu Country Town Project in Waikapu, Maui, Hawaii; TMK Nos: (2) 3-6-002:001, (2) 3-6-002:003, (2) 3-6-4:003, (2) 3-6-004:006, (2) 3-6-005:007 and (2) 3-6-006:036.

Thank you for your letter dated March 28, 2016, regarding the Draft Environmental Impact Statement (DEIS) prepared for the above-referenced project. In response to your comments, please find the following responses:

1. ***Initial Comment.*** Please note that Planning Consultants Hawaii (PCH) sincerely appreciates your positive compliments regarding the quality of the DEIS. We are very much aware of your professional expertise, hard work and dedication over the years to perpetuating *Maui No Ka Oi* and your compliments are taken with much gratitude.

2. ***WCT Population Impact.*** As discussed in the DEIS, a Market Study and Economic and Fiscal Impact Assessment report was prepared by the Hallstrom Appraisal Group | CBRE, Inc. in July 2015. The July 2015 study projected that with the buildout of 1,433 units (1,050 single-family units and 383 multi-family units) the de facto population of the Project would be approximately 3,511 persons[1], comprised of 3,362 full-time residents and 148 part-time residents and second home buyers. This projection was based on a population multiplier of 3.2 persons per single-family unit and 2.6 persons per multi-family unit.

[1] Assumes 85% of single- and multi-family units are occupied by residents. Assumes that 15% of the units are owned by part-time residents, whom occupy their units 25% of the time.

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The DEIS noted that the increase in the Project's resident population would represent approximately 8.40% to 15.40% of the region's projected resident population growth to 2035.

However, in response to your comments the Hallstrom Appraisal Group | CBRE, Inc. revisited their model and did find an error in the calculation. This error was caused by reversing the multipliers for the single- and multi-family units. After adjusting for the error it was determined that the Project's de facto population (without Ohana units) would be 3,866 persons[2], which is an increase of 355 persons over the earlier calculation. Moreover, the Applicant and Applicant's market consultant concur that the persons occupying the Project's Ohana units should also be included in the Project's population estimate. If we assume that the Ohana units are occupied exclusively by residents and that the population per unit is 1.5 persons, then the Ohana units would increase the project population by an additional 219 persons. Thus, the revised defacto population, including the 146 Ohana units, would be 4,085 persons and the revised resident population would be 3,922 persons. Using the revised population projection, the WCT's resident population impact represents approximately 19.93% to 18.51% of the region's projected resident population growth to 2035. Section V.B.1, and related sections of the FEIS, have been updated to address your comments.

3. ***Number of Ohana Units***. The anticipated average residential lot size within the WCT is about 5,586 square feet. Within the project, there will likely be lots as small as 3,500 square feet and lots as large as 10,000 square feet with a net residential density of about 7.4 units per acre for the single-family residential lots. The rural lots are between .5 acres and 2-acres or more. Maui County Code (MCC) §19.35.020 requires a minimum lot size of 7,500 square feet to accommodate an Ohana unit.

   For planning purposes, it was assumed that about 14 percent of the 1,050 single-family and rural lots would have Ohana units. It is

[2] Assumes 85% of single- and multi-family units are occupied by residents and the remaining 15% are occupied by part-time residents. It is assumed that part-time residents occupy their units 25% of the time. The population multiplier per single-family unit is 3.2 persons per unit and for multi-family units it is 2.6 persons per unit. It is assumed that all Ohana units are occupied by residents at 1.5 persons per unit. As such the calculation was made as follows: [(1050 * .85)*3.2] + [(1050 * (.15)*(3.2)*(.25)] + [383*.85)*2.6] + [(383*(.15)*(2.6) *(.25)] + (146*1.5)

possible that the Ohana units could be developed concurrently with the primary residence or at some undetermined future date by individual property owners. Through the Project District Ordinance the number of Ohana units can be regulated by lot size, through a restriction to the permitted uses, by special use provisions, or by a quota. However, it should be noted that Ohana units offer an important source of affordable housing on Maui, especially for seniors and young adults. Moreover, many of the infrastructure and public facility impacts associated with the development of Ohana units can be mitigated at the time of building permit application. Prior to the issuance of building permits impacts to water, wastewater, schools and parks can be mitigated through impact fees, or if warranted, by denial of the building permit due to insufficient infrastructure or public facilities. This is the current policy of the County with respect to the issuance of water meters on many entitled lots within Central, South and Upcountry Maui. In any event, the impacts associated with the development of the 146 Ohana units were mostly documented in the DEIS, and where they were not documented, they have been documented in Chapter V of the FEIS.

4. ***Population Impacts upon Infrastructure and Public Facilities.*** As documented in the DEIS, the population created by the project will increase demand for infrastructure and public facility systems. The following summarizes the infrastructure and public facility impacts described in the DEIS that may need to be revised in response to the increase in the Project's estimated population:

   - *Traffic.* The Traffic Impact Assessment Report (TIAR) utilizes vehicle trip rates presented in *Trip Generation 9th Edition* (Institute of Transportation Engineers, 2012) to estimate the number of trips to and from the proposed project. The vehicle trip rates were applied to the 146 Ohana units as well as to all other land uses within the development. As such, the TIAR will not need to be revised as a result of the increase in the Project's population.

   - *Water.* The Preliminary Engineering Report includes an assessment of the Project's projected potable and water demand. The assessment relies upon the Department of Water Supply's Water System Standards (DWSWSS), dated 2002, in order to

calculate the Project's water demand.[3] The DEIS's potable water calculation accounted for the entire development, including the proposed 146 Ohana units. As such, the Project's water use assessment will not need to be revised as a result of the increase in the Project's population.

- ***Wastewater.*** The Preliminary Engineering Report includes an assessment of the Project's projected wastewater generation. The wastewater generation rates are based upon the unit type, unit number, land use, etc. The projected wastewater generation described in the DEIS included the entire WCT development, including the 146 Ohana units. As such, the Project's wastewater generation assessment will not need to be revised as a result of the increase in the Project's population.

- ***Parks.*** The DEIS includes a description of the WCT's impact upon parks and recreation facilities. A project's impact to park and recreation facilities is often documented by the ratio of population to available park space. As such, this section of the FEIS has been revised to document the impacts associated with the increase in the Project's population. Moreover, the DEIS did not document the additional park dedication that will be required by the County for the development of the Ohana units. As such, the FEIS has documented the additional park dedication that will be required of the Project as a result of the 146 Ohana units. Section V.C.1 of the FEIS has been revised to address your comments.

- ***Schools.*** The Department of Education (DOE) determines its school impacts based upon a ratio of the number and type of school aged children by residential unit type. As such, this projection will not be impacted by the increase in the Project's population. However, with respect to the 146 Ohana units, the DOE has not yet determined whether impact fees will be required of these units. This will be confirmed upon finalizing the Educational Contribution Agreement (ECA), which is in the

[3] Based upon pre-consultation between the Department of Water Supply and the Project's civil engineer, it was determined that the DWSWSS standards could be conservatively reduced by one-third if the proposed dual water system was used for the project.

process of being consummated between the Developer and the DOE.

- ***Police, Fire, Medical Facilities and Solid Waste.*** The DEIS includes a description of the WCT's impact upon police, fire, medical facilities and solid waste. A project's impacts to these facilities are often described by the ratio of population to available facilities. As such, this section of the FEIS has been revised to document the impacts associated with the additional population created by the development. Sections V.C.2, 3, 4 and 5 of the FEIS has been revised to address your comments.

5. ***201H Affordable Housing Project.*** Please note that adding additional units in the form of a 201H project is not being contemplated at this time. The reference to the potential addition of a 300-unit affordable housing project will be removed from Appendix A, *Market Study, Economic Impact Analysis and Public Facilities Assessment.* However, the alternatives analysis provided in Chapter VII of the FEIS includes this alternative since it was considered by the Applicant in the formulation of the Preferred Alternative.

The WCT's Final Environmental Impact Statement (FEIS) can be downloaded from the State Office of Environmental Quality Control's (OEQC's) website and the State Land Use Commission's website. The document may also be downloaded from www.waikapu.com. Thank you very much for your interest in this important Central Maui project. Should you have any questions, please contact me at (808) 269-6220 or by e-mail at msummers@planningconsultantshawaii.com.

Sincerely yours,

Michael J. Summers
President

Attachment
c: Mr. Michael Atherton
Mr. Albert Boyce

24. Mr. Richard “Dick” Mayer

TO: Applicant: Mr. Michael Atherton (209) 601-4187 coachpea20@sbcglobal.net
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1670 Honoapiʻilani Highway Wailuku, HI 96793,
Consultant: Mr. Michael Summers (808) 269-6220 msumers@planningconsultantshawaii.com
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Approving Agency: Mr. Daniel Orodenker (808) 587-3822
State of Hawaiʻi, Land Use Commission,
Department of Business, Economic Development and Tourism,
P.O. Box 2359, Honolulu, HI 96804-2359

From: Richard "Dick" Mayer dickmayer@earthlink.net
1111 Lower Kimo Dr.
Kula, Maui HI 96790

March 28, 2016

RE: **Waikapū Country Town Draft-EIS – SUPPLEMENTAL COMMENTS / ISSUES**

Initial Comment: This letter is a supplement to the letter dealing with the Waikapū Country Town population issue which was previously sent. It contains a number of issues/concerns that will need to be addressed in the Waikapū Country Town Final-EIS.

1. More information is needed with regard to the County requirements for **constructing affordable "workforce housing"**:

A. Where in this Waikapu community will the affordable housing be built? Mauka or makai? Near the center of town? Or on the periphery? As single-family units? Or only as smaller sized units in the multi-family buildings? Will space be available for larger families who are also low-income?

B. What types of units will be built? For home ownership? Or as rental units? Will units be given "affordable and workforce" status in-perpetuity?

C. What will be the phasing of the affordable units? Will they have to wait for the entire mauka phase area to be completed before they are built? That would not be good.

D. Since at least 20-25% of the units must be in the affordable category, at no time shall there be more than 80% of the completed units in the "market-priced" category.

E. Describe the process by which local "workforce-housing" families will be selected to purchase the affordable homes. Signups? Raffle drawings? Priority lists?

The Final-EIS should clarify these important social issues.

2. Traffic is probably the most problematic issue for this project. The TIAR traffic study mentions many of the other projects that will be built in the vicinity of the Waikapu Country Town. However, the traffic study has provided no explanation on how the proposed development of the other projects will be phased during the next 10 to 20 years. What will be their probable rate of implementation? In the same 10 year period as Waikapu Country Town is to be completed?

Potentially, the 1,500 – 1,800 units being proposed in Waikapu Country Town are in addition to the 2,550 Waiale area units; 600 - 800 units in Puunani; and 1,000 to 2,000 units in Kehalani and Maui Lani.

It is absolutely necessary that a Central Maui Transportation Master Plan be completed that will integrate the traffic impacts and needs of all of these communities since at present the environmental documents for each project do not adequately include the cumulative impacts from the other projects.

Waikapu Country Town should offer to pay its fair share to have a Central Maui Transportation Master Plan prepared. The Central Maui Transportation Master Plan should include three components:

A. A detailed description of the needed roads and intersections in Central Maui
B. Cost estimates to construct the needed roads and intersections; and
C. A fair allocation of the construction costs to be paid by:
each of the major residential developments; the State DOT; and Maui County. This would probably include the designation of particular traffic projects to a specific party.

3. Describe in greater detail the effects on the **Waikapu aquafer** of drawing water not only by the five Waikapu Country Town wells, but also from other wells that are now and in the future going to take water from the Waikapu aquifer. Will the sustainable yield be exceeded?

4. **Parking** There needs to be a more comprehensive discussion of the parking situation near the Town Center and especially on Main Street where there will be many stores and residences above the stores. The picture of Main Street leaves the impression that there will be inadequate parking for a commercial area. The major problems that present-day Wailuku has with inadequate parking may be replicated here.

5. Elevation differences and bicycle routes Will there be considerable difficulty in riding bicycles in a makai to mauka direction? The Draft-EIS indicates that there will be an elevation difference of 400 feet or the equivalent of a 40-story building. Is it reasonable to expect that for an average resident there will be bicycle traffic going uphill? For example, how many people in Wailuku could cycle up Main Street from the bridge over Waiale Road to the Baldwin House museum or higher? It is doubtful that elementary school children will ever be able to get to their mauka home from the elementary school and nearby park

6. Clarify in the Final-EIS exactly where all of the **storm water** from the built up environment will end up.

7. It seems clear that, sooner rather than later, a **wastewater treatment plant** will need to be built. Indicate in the Final-EIS where that proposed wastewater treatment plant will be constructed. On-site? Or off-site? And are there any environmental impacts from this very large (over $50 million) facility? Almost certainly: yes.

8. The Draft-EIS has an **extremely aggressive timetable for completion**. It indicates two 5 year phases which seems highly unrealistic given the experiences of the other multi-decade, residential communities in Central Maui: Kahului, Maui Lani, and Kehalani. What are the implications (financial, management, infrastructure, etc.) if the project timetable is lengthened?

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December 12, 2016

Mr. Richard "Dick" Mayer
1111 Lower Kimo Drive
Kula, Maui HI 96790

Dear Mr. Mayer:

Re: **Draft Environmental Impact Statement** Prepared for the Proposed Waikapu Country Town Project in Waikapu, Maui, Hawaii; TMK Nos: (2) 3-6-002:001, (2) 3-6-002:003, (2) 3-6-4:003, (2) 3-6-004:006, (2) 3-6-005:007 and (2) 3-6-006:036.

Thank you for your additional letter dated March 28, 2016, regarding the Draft Environmental Impact Statement (DEIS) prepared for the above-referenced project. In response to your comments, please find the following responses:

1. ***County Workforce Housing***. The WCT will be subject to the County's Workforce Housing Policy as enumerated in Maui County Code (MCC) Chapter 2.96. The County's policy describes in significant detail the percentage of a residential development that must be sold as Workforce Housing, the required distribution of units amongst income categories, the required selling prices and/or rents for Workforce Housing, the phasing of Workforce Housing relative to market priced housing, buyer and/or renter qualification criteria for purchasing and/or renting Workforce Housing, and how Workforce Housing must be marketed by the Department of Housing & Human Concerns and the developer. MCC Chapter 2.96 also stipulates what the deed restrictions and resale restrictions are for Workforce Housing units.

   The Applicant intends to develop the required Workforce Housing within the Waikapu Country Town (WCT) project area boundaries. As required by MCC Chapter 2.96, the Workforce Housing will be constructed concurrently with and in the required proportion to the

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market rate housing. The Applicant desires to have a mixture of housing types, configurations and unit sizes, which would be sold as Workforce Housing pursuant the requirements of MCC Chapter 2.96. The Workforce Housing product will be built within locations on the site where development of the Workforce Housing can be done most cost effectively, where it is closest to public facilities and provides the most convenient non-vehicular access to shopping, schools, parks and public transit. The Applicant intends to make the Workforce Housing available in multi-family and single-family formats to accommodate a variety of household sizes and demographics. In consideration of the pricing restrictions placed upon Workforce Housing, it is likely that Workforce Housing single-family lots will be smaller than the market priced lots and the home sizes may also be smaller in order to make this housing option more affordable to prospective buyers. The Applicant also intends to include rental Workforce Housing units, but the ultimate mix of for sale and rental housing is not known at this time. Sections III.B.1, 7 and V.B.1 of the FEIS have been updated to address your comments.

2. ***Traffic.*** The DEIS includes a Traffic Impact Analysis Report (TIAR) prepared by a traffic engineer. The TIAR is included as Appendix L in the FEIS and it is summarized in Section V.D.1 of the FEIS.

The prescribed methodology for conducting a TIAR is to document operating conditions at impacted intersections during the AM and PM peak hours. This is done for existing conditions, conditions in the future without the project, and conditions in the future with the project. In determining conditions in the future without the project, the traffic engineer includes in the traffic model cumulative growth within the region together with foreseeable planned roadway improvements. The TIAR describes this process as follows on page 24 of the TIAR (Appendix L of the FEIS):

> *"The cumulative base traffic projections include two elements: 1) model forecasts of future traffic volumes that take into account the expected changes in traffic over the existing traffic volumes caused by traffic generated by specific cumulative projects located in the study area and overall regional growth; and 2) by roadway network changes and street system improvements."*

The cumulative analysis in the TIAR accounts for both planned future development, such as Waiale, as well as the State DOT's traffic projections, which are based upon socio-economic data developed by the State of Hawaii. Attached for your convenience as Exhibit A are pages 24 - 30 of the TIAR, which documents how the cumulative base traffic volumes were estimated.

3. ***Central Maui Transportation Master Plan.*** The Applicant understands that the State of Hawaii relies upon the Federal-Aid Highways 2035 Transportation Plan for the District of Maui and its Statewide Transportation Improvement Plan (STIP) for its highways planning. The WCT's TIAR, as well as recently completed TIAR's completed by neighboring developments, would offer important data and analysis to support any State and/or County effort to conduct a transportation master plan for Central Maui.

   Note that the State and County require "fair share" improvements or "fair share" costs for improvements by developers to address off-site impacts. Moreover, a development may be required to pay for the entire off-site improvement if the impact from the developer's project reduces the LOS of an intersection to an unacceptable Level-of-Service.

4. The Commission on Water Resource Management (CWRM) regulates well drilling and groundwater resources in Hawaii and has established hydrologic units with sustainable yield values in million gallons per day (mgd) for the purpose of groundwater management throughout the State. The Project lies within the Waikapu Aquifer System of the Wailuku Hydrologic Sector. The sustainable yield (amount of groundwater that can be safely developed over the long-term) from the Waikapu Aquifer System has been established at 3 mgd. When the CWRM officially designates a hydrologic sector or aquifer system for groundwater management, it has the responsibility to regulate the amount of groundwater use from wells within the designated area. The Waikapu Aquifer has been designated a Special Groundwater Management Area by the CWRM and therefore any water drawn from this Aquifer must first be approved by the CWRM.

   The WCT has drilled six wells on the property. Pump tests have been conducted for three (3) of these wells. The pump tests determined that

Well 1 has a sustainable capacity of 1.39 mgd and Well 2 has a sustainable capacity of 1.03 mgd. Further pump testing is required to confirm the sustainable capacity of Well 3. Pump and water quality tests are to be conducted in the future for Wells 4 and 5. Well 6 is to serve as a monitoring well. Before the subject wells can be put into use a groundwater use permit must be approved by the CWRM. The results of the 10-day pumping tests for Wells 1, 2 and 3 have been incorporated into the FEIS as Appendix I. Section V.D.4, and other applicable sections, of the FEIS have been updated to address your comments.

5. ***Parking***. The Applicant appreciates your comments regarding on-site parking. Parking requirements for the Project will be specified within the Project District zoning ordinance and Design Guidelines that will be prepared to implement the land use plan. The parking standards developed for the WCT will be designed to ensure that adequate parking will be provided throughout the development. It is intended that the parking standards and design guidelines will function together to offer innovative solutions to mitigate some of the deleterious effects that parking can have upon the natural environment and the built urban form. The WCT's parking standards and design guidelines will create opportunities for strategic and centrally located parking lots within the town center and near the main street business districts. It will also allow for on street parking, joint-use parking and the opportunity for cash-in-lieu fees, where appropriate. Minimum on-site parking requirements will be established by use. As noted, the WCT's parking standards and design guidelines will be subject to review and approval by the Maui Planning Commission and County Council as part of the zoning entitlement process. Section III.B.D has been incorporated into the FEIS to address your comments.

6. ***Elevation Differences and Bicycle Routes.*** The Applicant intends to develop a community where walking and bicycling are the preferred modes of transportation for short commutes. This can be accomplished by providing safe, secure and pleasant routes for walking and bicycling. The WCT is accomplishing this goal by developing a network of sidewalks, separated multi-use pedestrian and bicycle trails and separated pedestrian paths that link the Project's major activity centers with its residential neighborhoods.

As Figure 21, "Walkability Diagram", in the FEIS shows, the WCT's residential neighborhoods are mostly within a one-half mile walk of the elementary school. A one-half mile walk translates into an approximate 10-minute walk. Preliminary slope estimates indicate that the approximate slope for bicyclists travelling north to south is between 1.2% and 2.0%. Meanwhile, a preliminary estimate of the grades are 3.4% to 3.5% traveling mauka to makai within the makai side of the project. Mauka of Honoapiilani Highway a preliminary estimate is that the mauka to makai grades may range between 5.7 to 6.0%. It is generally accepted that for multi-use paths grades of 3% or less are comfortable for most riders, but that grades up to five percent are generally acceptable. If possible, the Applicant will try to avoid slopes greater that 5% in order to facilitate more bicycle riding between the Project's mauka and makai neighborhoods.

7. ***Storm Water.*** Section V.D.3 of the FEIS includes Figure 46, "Proposed Drainage System Improvements, which documents where on-site drainage is retained on-site.

8. ***Wastewater Treatment Plant.*** As noted in the DEIS, a wastewater reclamation plant will be required to treat wastewater generated by the Project. The Applicant's preferred wastewater technology is an Organica FCR solution that consists of a series of biological treatment zones simultaneously utilizing both fixed biofilm and suspended biomass in the reactors. The reclamation facility will serve the dual purpose of recycling the WCT's wastewater so that it can be reused for irrigation purposes. It is estimated that at full buildout the facility will be capable of generating approximately .65 million gallons per day of recycled water that may be used for irrigation of the Project's agricultural lands and urban open space areas. The facility and its impacts are described in detail in Sections III.B.8 and V.D.5 of the FEIS.

9. ***Project Schedule.*** Once all entitlements and building permits have been secured, the ultimate build-out of the Project will be subject to the strength of demand for single- and multi-family housing and the supporting commercial development. As described in Section II.E of the FEIS and in Appendix A, "Market Study, Economic Impact Analysis, and Public Fiscal Assessment, the Applicant expects that the market will be strong enough to absorb the Project within the 10-year

schedule. Should the market demand be considerably weaker than projected, then the schedule would be adjusted to meet the demand. Given the high up-front capital costs to develop the infrastructure to support the development, if market demand is too weak to support the Project's capital costs, then the Project, as proposed, may not be built.

The WCT's Final Environmental Impact Statement (FEIS) can be downloaded from the State Office of Environmental Quality Control's (OEQC's) website and the State Land Use Commission's website. The document may also be downloaded from www.waikapu.com. Thank you very much for your interest in this important Central Maui project. Should you have any questions, please contact me at (808) 269-6220 or by e-mail at msummers@planningconsultantshawaii.com.

Sincerely yours,

Michael J. Summers

Michael J. Summers
President

Attachment
c: Mr. Michael Atherton
Mr. Albert Boyce

4. FUTURE TRAFFIC PROJECTIONS

To evaluate the potential impact of traffic generated by the proposed project on the surrounding street system, it was necessary to develop estimates of future traffic conditions in the area both with and without the project. Future traffic conditions without the proposed project reflect traffic increases due to general regional growth and development, as well as traffic increases generated by other specific developments near the project site. These conditions are referred to as the cumulative base condition (i.e., no project conditions). The sum of the cumulative base and project-generated traffic represents the cumulative plus project conditions. Development of these future traffic scenarios is described in this chapter.

CUMULATIVE BASE TRAFFIC PROJECTIONS

The cumulative base traffic projections include two elements: 1) model forecasts of future traffic volumes that take into account the expected changes in traffic over the existing traffic volumes caused by traffic generated by specific cumulative projects located in the study area and overall regional growth; and 2) by roadway network changes and street system improvements.

Although the anticipated completion year of the first phase of the WCT development is 2021, the analysis used 2022 for the horizon year for Phase 1 to be consistent with the planned completion of large background projects in the area, such as the Waiale development and the Waiale Bypass, providing a more conservative cumulative forecast against which to assess potential project impacts.

AREAWIDE TRAFFIC GROWTH AND CUMULATIVE DEVELOPMENT PROJECTS

Information was obtained from the County of Maui on approved, planned, and proposed development projects throughout Central Maui. This information was used to estimate future traffic volumes for the study area, since the growth and changes in traffic caused by anticipated projects in the Kahului, Wailuku and Waikapu areas could affect conditions on the streets around WCT. **Table 4** is a compiled list of future cumulative projects in the Central Maui vicinity. **Appendix C** provides a more detailed list with available project descriptions for residential projects that the County is monitoring, as well as maps of other residential and non-residential development projects in Central Maui that have come to the attention of the Department of Planning.

Exhibit A, Pages 24 - 30 of the TIAR

TABLE 4 – CENTRAL MAUI FUTURE CUMULATIVE PROJECT LIST [1,2]

Project Name	
• `Aina o Kane Condos	• Kehalani (C-9)
• Alternative Care Services, Inc.	• Kehalani Commercial Center
• Central Maui Regional Park	• Maui Beach Hotel Addition
• Central Maui Senior Housing	• Maui Lani Church
• Civil Defense Center	• Maui Lani Homes 1
• Consolidated Baseyards	• Maui Lani Lot 4
• Habitat For Humanity Condos	• Maui Lani Lot 7B
• Hale Ho`omalu Mental Health Kokua	• Maui Lani MF7 Condos
• Hale Mua	• Maui Lani Parkway Commercial
• Hale Kapili Project	• Maui Lani The Parkways
• Ka Lima O Maui Affordable Housing	• Maui Lani Village
• Kahawai Condos	• MEO B.E.S.T. House
• Kahului Harbor Improvements	• Mission Street Affordable Apts.
• Kahului Town Center Redevelopment	• Na Leo Pulama O Maui Hawaiian School Hale Hou
• Kehalani (C-12)	• Pi`ihana Project District 2
• Kehalani (C-13)	• Pu`unani Residences
• Kehalani (C-14)	• Valley Isle Fellowship Condos
• Kehalani (C-18)	• Wai`ale
• Kehalani (C-19)	• Wai'ale Affordable Homes
• Kehalani (C-3)	• Waiehu Mauka Affordable Townhomes
• Kehalani (C-6)	• Waikapu Gardens II
• Kehalani (C-7)	• Waikapu Light Industrial Park
• Kehalani (C-8)	• Waikapu Rural Village

Notes:

[1]The list above of development projects in Central Maui were pulled from multiple sources, including: conversations with County staff, a residential project list for Central Maui provided by the County of Maui in December 2013, available and relevant environmental assessments or impact studies available on the State's website for Maui, and the 2011 Central Maui Development Project maps and Development Project GIS layer available on the County website.

[2]During the related project review process, the socioeconomic and land use data in the interim year and long-term year No Build models was consistent with the future cumulative projects listed above.

By 2022 and by 2026, the WCT study area will have experienced significant residential growth and development of new commercial, industrial, business, and institutional land uses, primarily because of the following projects:

- *Waiale,* located along Waiko Road, south of the Maui Lani development, east of Waiale Road, and directly west of Kuihelani Highway, is assumed to be completed by 2022.[1] The planned mixed-use community will include 2,550 single-family and multi-family dwellings, commercial and light industrial land uses, as well as a middle school.
- *Maui Lani Development* is partially complete and assumed to be fully completed by 2026. This master planned community along Mauilani Parkway between Waiale Road and Kuihelani Highway, comprises of a mixture of residential subdivisions that total approximately 1,000 single-family and multi-family households and commercial uses. Specifically, the development includes the Maui Lani Village Center, which will be about 540,000 square feet or 79 lots available for commercial, business, or medical office uses.
- *Kehalani Development* is partially complete and assumed to be fully completed by 2026. This master planned community of 2,400 homes is located north of Kuikahi Drive, south of Iao Valley Road, east of the West Maui Mountains, and primarily west of Honoapiilani Highway.[2]
- *Puunani Residences* is located on the southwest quadrant of the intersection of Honoapiilani Highway & Kuikahi Drive. It is assumed that 20% and 40% of the project would be completed by both 2022 and 2026, respectively. Kuikahi Drive and Honoapiilani Highway are planned to provide access to the 600-home neighborhood.

Traffic generated by the above related projects and other developments were projected using the Maui Travel Demand Forecasting Model (TDFM)[3] and the trip generation methodology. The TDFM assigns land use and socioeconomic data provided by the County of Maui in 2007 to Traffic Analysis Zones (TAZs). These attributes were further used to generate and assign traffic across the roadway network for the base and horizon years, respectively.

[1] The TIAR for the Waiale development analyzed the project with Base Year 2022 conditions (Austin, Tsutsumi, and Associates, Inc., 2011).

[2] Source: http://www.kehalani.org/

[3] The base 2007 model, the interim horizon 2020 No Build model, and the long-term horizon 2035 No Build model were obtained from HDOT. The socioeconomic and land use data supplied by Maui County in 2007 was used to calibrate the TDFM.

BASELINE STREET SYSTEM IMPROVEMENTS

Discussions were held with County and State agency staff regarding the roadway improvements in or near the study area planned for completion by 2022. These improvements, whether the result of local capital improvement programs or in connection with planned or approved projects, would result in dramatically improved mobility options for residents and visitors as well as capacity changes at various locations throughout the study area as discussed below.

Based on the information received from agency staff, the review of planning documents related to the nearby projects, and the review of the roadway network changes between the base and horizon year models, the proposed transportation system changes that are projected to occur between 2007 and 2022 are included in the cumulative base traffic network of each horizon year No Build model.[4] The improvements are listed in detail below:

- Hana Highway Widening – The 2020 and 2035 roadway networks of the TDFM includes the widening of Hana Highway from a four-lane to a six-lane divided highway from Kaahumanu Avenue to the vicinity of the also proposed Kahului Airport Access Road.

- Honoapiilani Highway Widening – The 2020 and 2035 roadway networks of the TDFM includes the widening of Honoapiilani Highway between Lahainaluna Road and Aholo Road in West Maui from being a two-lane roadway to a four-lane roadway.

- Kahului Airport Access Road – This four-lane bypass will be constructed from Puunene Avenue to Hana Highway. The purpose of this road is to provide an alternative route to congested existing routes (i.e., Dairy Road) to Kahului Airport. This roadway improvement project is assumed in the 2020 and 2035 roadway networks of the TDFM.

- Kamehameha Avenue Extension – To support the Waiale development and related traffic, it is assumed that Kamehameha Avenue will extend southward from its existing terminus near its intersection with Maui Lani Parkway to intersect Waiko Road and eventually to intersect with the Waiale project site Road B.

- Intersection 7: Kamehameha Avenue & Waiko Road – This future side street stop-controlled, four-legged intersection will consist of one left-turn lane and one shared through/right-turn lane on all

[4] Per HDOT, No Build scenarios are considered baseline conditions, which includes socioeconomic forecasts but without implementing projects, such as major roadway improvements and some private developments. At the time the model files were obtained, HDOT was currently working on the build scenario that modeled future projects. Because some of the roadway improvements listed in the TIAR were absent from both the 2020 No Build model and 2035 No Build model roadway networks, the roadway network for each model horizon year was updated to ensure these future facility improvements are appropriately modeled.

approaches. This intersection is assumed to be constructed under cumulative base conditions, as it would provide access to portions of the Waiale mixed-use community.

- Lahaina Bypass – This two-lane highway will be located in West Maui and will extend between Launiupoko south of Lahaina and Honokowai to the north. This roadway improvement project was added to the 2020 and 2035 roadway networks of the TDFM.

- Maui Lani Parkway Extension – To support the Maui Lani developments and related traffic, it is assumed that Maui Lani Parkway will extend and connect Waiinu Street and Kuikahi Drive. It is assumed that the extension will provide one lane in each direction.

- Puunene Avenue Widening – The 2020 and 2035 roadway networks of the TDFM includes the widening of Puunene Avenue from two to four lanes from Wakea Avenue to Kuihelani Highway.

- Roadway Detailing for Waiale – To support the Waiale project and related traffic, the construction of the following roadways are assumed within the Waiale project site: Road A, Kamehameha Avenue extension, Road C, and Road B. These roadways are assumed to be constructed under cumulative base conditions, as it would provide access to various areas of the Waiale mixed-use community.

- Waiale Bypass – Waiale Road would extend from its existing terminus at Waiko Road to intersect Honoapiilani Highway approximately one mile south of Honoapiilani Highway/ Waiko Road. It is assumed that the bypass would be constructed as a two-way, two-lane roadway and left-turn pockets will be provided at key intersections, including the two future study intersections (discussed below).

- Intersection 6: Waiale Road & Waiko Road – This intersection will become a four-legged intersection under cumulative base conditions and the fourth (south) leg will be constructed as part of the Waiale Bypass. It is assumed that the reconfigured intersection will consist of one left-turn lane and one shared through/right-turn lane at the eastbound and southbound approaches, while the northbound and westbound approaches are assumed to consist of one left-turn lane, one through lane, and one right-turn lane. This existing, unsignalized intersection is assumed to become signalized as part of the construction of the Waiale Bypass.

- Intersection 13: Honoapi`ilani Highway & Waiale Road – This future intersection will consist of a northbound approach that provides one through lane and one free right-turn lane, a southbound approach that provide one through lane and one left-turn lane, and a westbound approach with one left-turn lane and one right-turn lane. This intersection is assumed to be signalized and constructed as part of the Waiale Bypass project under cumulative base conditions.

Cumulative Base Traffic Projection Methodology

Related projects were checked against the model growth between the base year (2007) and each of the horizon years (2020 and 2035) to see if the land use and socioeconomic attributes included the known related projects, such as those listed in **Table 4**. Since the horizon year models obtained from HDOT were No Build scenarios,[5] some of the major projects planned in the vicinity of the WCT study area were noticeably absent in the TDFM's projections; therefore, in order to appropriately model these future projects, the respective land use and socioeconomic attributes were adjusted for the corresponding horizon year the related projects are anticipated to be completed by. The changes in land use and socioeconomic assumptions between the updated 2020 and 2035 model were then used to interpolate the land use and socioeconomic data for the scaled 2022 and 2026 models, which were used to forecast cumulative base traffic volumes for 2022 and 2026, respectively.

After the land use and socioeconomic data adjustments were completed, trips generated by the related projects were estimated and assigned by the model to the future roadway system based on their locations and anticipated distribution patterns. The geographic distribution of traffic generated by new development depends on several factors, such as the type and density of the proposed land uses, the geographic distribution of the population from which employees and/or patrons may be drawn, the geographic distribution of activity centers (employment, commercial, and other) to which residents of proposed residential projects may be drawn, and the location of those developments in relation to the surrounding future street system.

Between 2013[6] and 2026, the TDFM anticipates an aggregate, island-wide growth of approximately 17,000 households and about 24,000 employees for Maui. Additionally, after land use and socioeconomic data adjustments were completed for the 2026 model, the TDFM projected an approximate 20% increase in demand over existing conditions along Honoapiilani Highway between Kuikahi Drive and Kuihelani Highway. The TDFM also projected an approximate 30% increase in demand along Kuihelani Highway over existing conditions between Maui Lani Parkway and Honoapiilani Highway. [7]

[5] Ibid.

[6] The Base Year (2007) for the TDFM was adjusted to include known socioeconomic changes up to 2013 (See Appendix C for specific projects). Therefore, the updated Base Year TDFM used in this analysis reflects land use and employment updates between 2007 and 2013.

[7] The overall percentage increase in traffic demand was based on averaging the calculated percentage increase in each of the PM peak hour roadway segment volumes between the updated base year and 2026 horizon year models.

CUMULATIVE BASE TRAFFIC VOLUMES

The resulting cumulative base traffic volumes and the anticipated lane configurations, representing future conditions without the project for year 2022 and 2026, are presented in **Figure 4** and **Figure 5**, respectively. These future projections take into account the estimated overall growth in the surrounding area without the addition of traffic generated by the proposed Waikapu Country Town Project. To analyze level of service, post-processed model volumes for the 2022 cumulative base and the 2026 cumulative base were loaded into Synchro 8.0.

PROJECT TRAFFIC PROJECTIONS

Development of future traffic projections related to the amount of traffic added to the roadway system by WCT is estimated using a three-step process: (1) project trip generation, (2) trip distribution, and (3) trip assignment. The first step estimates the amount of project-generated traffic will be added to the roadway network. The second step estimates the direction of travel to and from the project site. The new trips are assigned to specific street segments and intersection turning movements during the third step. This process is described in more detail in the following sections.

PROJECT STREET SYSTEM IMPROVEMENTS

Based on feedback from agency staff and review of the proposed street network, the proposed transportation system changes described previously are anticipated to occur between 2013 and 2022/2026 and are therefore included in the cumulative base traffic network. Additional improvements will be made as part of the proposed project and are listed below:

- Intersection 9: Honoapiilani Highway & Main Street – This future intersection will be constructed as part of the Year 2022 Conditions (Phase 1) of the proposed project. The intersection is assumed to be configured with northbound and southbound approaches that provide one left-turn lane, one through lane, and one right-turn lane and eastbound and westbound approaches that provide one left-turn lane and one shared through/right-turn lane.

25. Mr. Albert Perez, Executive Director, Maui Tomorrow

TO: Applicant: Mr. Michael Atherton (209) 601-4187 March 30, 2016
Waikapu Properties, LLC,
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Approving Agency: Mr. Daniel Orodenker (808) 587-3822
State of Hawai‘i, Land Use Commission,
Department of Business, Economic Development and Tourism,
P.O. Box 2359, Honolulu, HI 96804-2359

From: Maui Tomorrow Foundation
RE: Waikapū Country Town Draft-EIS

Mahalo for the opportunity to review this Draft EIS. In general the EIS discusses a variety of the project's impacts openly and offers constructive mitigations. The fact that the project is offering to set aside an 800 acre ag preserve and commit to providing local opportunities for food and other production is a unique feature in developments of this size in central Maui.

There are, however, several areas in the Draft EIS that lack sufficient or accurate information/maps or other data to adequately cover the likely impacts of the action. We ask that this information be provided in the Final EIS.

Population figures that form the basis of many calculations are not clear. Appendix A includes Table III-4 which indicates expected population from single family units as: 2321 plus 102 part time residents. This is based upon an occupancy rate of 2.6 persons for fulltime residents and 3.2 persons for part time. According to US Census data for 2010-2014 for the Wailuku area the average occupancy for each household is 2.94 person/unit. This would give a full time population of 4,213, rather than 3,362 and a defacto population of 4,361. The DEIS does not justify why the census number was not used.

Section I comments: “Unresolved Issues”

A Wastewater Treatment
Discussed on p.I-38 as an “unresolved issue.” It is clear from the County DEM comments that eventually a new wastewater facility will need to be constructed onsite or off. A map is not provided in the DEIS report to show the possible location of the treatment facility. A verbal description of possible location is given as North-East corner of the property. This should be illustrated on a map and any possible impacts to the park/school-site planned in that location should be discussed. The DEIS should also the relative costs to local residents of a private treatment facility versus a public one. Likewise, any possible offsite locations should also be discussed.

Wai`ale By-pass Road Improvements
DEIS should discuss impacts on project design if this essential upgrade is not funded during the proposed first phase of the project.

Final Water Quality Testing
Since water quality testing results for the project's wells were not available in the EISPN or the DEIS, this effectively means that the public has had no chance to review or comment upon the information in the tests until the Final EIS, when public comment is no longer taken. This circumvents the Ch. 343 process of timely access by the public and agencies to project information.

Section II comments:

p. II-3 " HC&S continues to lease approximately 938 acres for sugarcane cultivation from the Project Applicant." This should be updated in FEIS.

p. II-21-26 discusses the phasing of the various aspects of the project. There is no discussion of the phasing of decisions re: the proposed ag preserve; ag park or large ag lots. Will all these be established in phase 1or phase 2? Maps like Fig 2 and various plan design maps do not clearly indicate where the potential ag park, ag preserve or ag lots will be located. The Department of Agriculture made the same comment. The DEIS should also identify the accepting agency or organization of the conservation easement, the timing of when the easement will be established and discuss how the conservation easement is to be implemented and managed.

The DEIS includes up to 146 ohana units in infrastructure planning data, which is very much appreciated. The FEIS, however, should note if there would be additional impacts if double that number of ohanas, and resulting 10% or more increase in the project population, were to be part of the finished project design. Would there be sufficient water, sewage capacity, road capacity, park space etc. to accommodate additional households, vehicles and infrastructure demands?

Chapter III Comments

p.III-16 states that "A range of housing types will be provided within easy walking distance of the Village Center" and gives a listing of types of housing. The EIS should specifically indicate whether any rental housing will be built in the project's first phase.
COMMENT: Mr. Atherton referred to a possible 201-H project as part of the development, and it is referenced in the DEIS as having up to 300 additional units.The EIS needs to indicate where that would be located and what additional infrastructure support it would involve since the 201-H process can waive Community Plan Amendment, Change in Zoning Application and other usual requirements to expedite the construction of affordable homes.

P.III-28 Discusses the use of a Complete Streets concept in project design. This is very desirable and we applaud the Applicant for adopting this strategy.

COMMENT: The DEIS, however, does not discuss how there would be hiking access to Waikapu stream from the upper (mauka) parts of the project. What happens to existing jeep road along stream? The DEIS has no discussion of community or cultural access to upper part of Waikapu stream, yet the stream was identified as the most important cultural feature on the land in the summary of the CIA.

COMMENT: The maps do not make it clear exactly what roads will service future agricultural lands.

P. III-31 The DEIS describes the Village Green as “the site of the existing Mill House Restaurant and MTP lagoon.”
COMMENT: The DEIS does not discuss if the proposed 1.5 acre “Village Green” size offers enough space for both WCT residents and potential visitor activities, although both are likely to be major users. What is the use capacity of a space that size? If more accurate residential population figures are used, is the Village Green size adequate?

P. III- 47 Table 17 (costs and phasing-) refers to a private Wastewater Facility being needed.

COMMENT: As mentioned above, location of this future facility should be shown on maps in the DEIS.

p. III-48 Shows substantial infrastructure costs: $79 mil for phase 1.
COMMENT: The DEIS should discuss what would happen if funding is not available for those significant costs or if there are alternative methods of phasing the project if the infrastructure is not developed.

Fig 29 is labeled “Drainage Improvements” but appears to show sewage lines. This should be clarified. p. 139. EXHIBIT 8 in the Engineering Report of the DEIS shows the proposed drainage system.

Section IV Comments:

Flora & Fauna
Mitigation measures to avoid harm to the endangered Blackburn Sphinx moth on the site are discussed in Section IV.A.4 of the DEIS and Appendix L (“EISPN Agency Comment and Response Letters”), In Section VII-p. 4 the DEIS concludes that “Implementing the USFWS mitigation measures will not constrain development of the property.”
COMMENT: The USFWS letter in Appendix L makes it clear that “implementation of these measures does not ensure that impacts to listed species can be avoided and further consultation with the Service with compliance on the ESA may be required.” The DEIS should indicate if the project is able to set aside any habitat area for the moth, if that is eventually required, and how that habitat area would affect project design.

Section V Comments

Historical and Archaeological Resources

VII-5-6 The AIS indicates the presence of mostly plantation era historic sites on the property. It appears that this may be because the area Archaeological Services Hawai‘i, LLC conducted an archaeological inventory survey (AIS) of the subject parcels to be developed (TMK’s 3-6-002:003; 3-6-004:003, 006; and 3- 6-005:007).

COMMENT: the AIS does not mention TMK parcel 3-6-002:001 which is referred to in other sections of DEIS. This parcel is shown in Fig 10 Community Plan Map but one parcel, TMK 3-6-002:003 is not shown on that map. Is this an error? Both parcels appear to be part of the project area.

Fig 32 Survey area map and the accompanying narrative indicate that only a 612 ac portion of the 1579 acre parcel was subject to the AIS survey. The SHPD process requires projects to discuss traditional properties on the affected area as well as adjoining lands. It does not appear that the lands along the mauka portions of Waikapu stream and the other 967 acres of the property were surveyed for historic properties, except where they may contain portions of the plantation ditch systems.

The AIS summary in the DEIS states: “During the investigation, no evidence of traditional Hawai‘ian activities, with the possible exception of Site 7882 (remnant retaining wall or terrace) was recorded. These negative results are primarily due to the compounded disturbances from sugarcane cultivation, historic habitation and modern land use; and possibly the inherent bias of random sampling during the inventory survey testing.”

COMMENT: The absence of traditional Hawai‘ian activities in the project site, could be due to the fact that only a portion of the “project site” was surveyed, and such limited surveys do not meet the specifications called for in State Historic laws.

HAR 13-276-2 defines project area as “the area the proposed project may potentially affect, either directly or indirectly. It includes not only the area where the project will take place, but also the proposed project’s area of potential effect.”

HAR 13-276-3 defines the scope of an AIS:
Archaeological inventory survey, generally.
“An archeological inventory survey shall:
(1) Determine if archaeological historic properties are present in the project area and, if so, identify all such historic properties.
(2) Gather sufficient information to evaluate each historic property's significance in accordance with the significance criteria listed in section 13-275-6(b).

The project area for Historic review for WCT is the entire 1579 acres. The AIS cannot conclude that there is “No Impact” to historic or archaeological sites if the entire acreage was not surveyed. The DEIS cannot make that same conclusion either.

Cultural practitioners were widely consulted on the Cultural Impact Assessment but do not appear to have been part of the AIS process, as also required by HAR 13-276-7:

> “the report shall contain information on the consultation process with individuals knowledgeable about the project area's history, if discussions with the SHPD, background research or public input indicate a need to consult with knowledgeable individuals.”

The two processes should be better integrated. It would be unusual to have such a large area with virtually no pre-contact features, even given its history of plantation cultivation. Monitoring is not a substitute for adequate archeological survey work.

Section VII comments:

VII-7 -8 Applicant is said to be “committed”.
COMMENT: Those actual commitments should be discussed in the FEIS.

VII-11 Describes 800 acres of land left as permanent ag designation as an ag park and 277 acres of the project site left as ag designation, but subdivided into 5 ag lots with possible farm dwellings.

COMMENT: It does not appear that these potentially residential lots are included in the potable water calculations. There are no figures given in the PER for non-potable water use other than an estimate that non-potable residential use is estimated as 1/3 of the usual Maui County use standards. Will the non-potable use of the 277 acres of ag lots compete with the 800 acre ag preserve operations for non-potable water, or is there plenty of water for all? These 277 acres are not like the average size "ag lot" of 2,5 or 10 acres. NOTE: as noted below, the acreages of ag land given in section VII are also not consistent with those given in the Preliminary Engineering Report in Appendix H.

COMMENT: The project's five wells are described in this section, but there is no mention of one well serving as a monitor well, as has been previously stated by the landowner in meetings with community groups. Will there be a monitor well? The FEIS should make this clear since so little information regarding water viability and quality is provided.

p. VII-12 The WCT will also be providing approximately 32.5 acres of public park land within the project, of which at least 16.5 acres will be dedicated to the County.

COMMENT: 6.5% of project land is park. If the population numbers are actually higher than predicted, because an unverified household size was used for the calculations and potential ohana units were estimated for just 148 of the 1050 single family lots, would more park area be needed?

The DEIS states that "The State of Hawai'i will also receive a 12-acre elementary school site." COMMENT: Does the State need to purchase this site? The FEIS should make this clear, as it could affect the viability of a new school being built for the community.

VII-14 .The DEIS states the project " ...will require that between twenty and twenty-five percent of the Project's housing be sold to low, low-moderate and gap groups in accordance with sales price and resale restrictions enumerated in Chapter 2.96, MCC."

COMMENT: How many units each of single family and multifamily are anticipated to be constructed to meet the County's workforce housing requirements?

Appendix H Preliminary Engineering Report (PER) and Drainage Reports

1.0 Introduction

p.1 of the PER has a project description not consistent with the rest of the DEIS report. It states: **"**WCT will be a master-planned community with a mixture of single- and multi-family residential, commercial, and civic uses. The Maui Island Plan's Directed Growth Plan designated approximately 503 acres of WCT's 1,562 acres into urban small town and rural growth boundaries. The remaining 1,059 acres will remain in the State's Agricultural District.

Approximately 800 acres of the Project's agricultural lands will be preserved in perpetuity for agricultural use through a conservation easement, and the remaining 274 acres will be kept in large agricultural lots.

COMMENT: The PER refers to different amounts of ag land than other parts of the DEIS 800 acres + 274 acres = 1,074 acres, not 1,059 acres of ag land. The discrepancy should be addressed.

Drainage: Existing and Post-Construction Conditions

The DEIS states: "Currently there are seven (7) diversion berms along the upper most portion of the mauka site, which intercepts surface runoff and diverts it into Waikapu Stream (See Exhibit 7). The diversion berms are part of the agricultural preserve that will not be developed and will remain in place as function as it is presently doing. Based on a 50-year, 1-hour storm, the existing diversion berms intercepts approximately 140,509 cubic feet of storm runoff and diverts it into Waikapu Stream. These diversion berms prevent runoff from sheet flowing into the proposed development areas."

p.16 of the PER further states: **"**After the development of the proposed project, **there will be no change in the volume of runoff diverted to Waikapu Stream from the upper agricultural preservation area**. The existing diversion berms will continue to divert runoff from the areas mauka of the project site into Waikapu Stream."

COMMENT: Given that the CIA identifies Waikapu Stream as the area's most important cultural feature and the major concern of cultural practitioners is sedimentation impacts to the stream, the DEIS should discuss any measures that could be taken to improve the water quality of the discharge from the bermed areas and remove the sediment. Comments in Vol III of the DEIS from Alec Wong of DOH Clean Water Branch asked the applicant to: "Identify opportunities to retrofit or bioengineer existing storm water infrastructure" to improve water quality. Redesign of the mauka bermed areas of the WCT project to detain and filter sediment from the existing discharge would appear to be in accord with this comment.

The DEIS states: **"**Based on the above drainage design criteria, the Phase I development mauka of Honoapiilani Highway will be required to mitigate an increase in runoff of 45 cfs and provide a minimum storage volume of 148,916 cubic feet and mitigate 266 cfs and provide a minimum storage volume of 771,963 cubic feet makai of Honoapiilani Highway."

COMMENT: Does this include mitigation for runoff from the makai side of Phase 1 as well?

The DEIS states in the PER: "In accordance with the County's *"Rules for the Design of Storm Water Treatment Best Management Practices",* the design of the stormwater system will include water quality treatment to reduce the discharge of pollutants to the maximum extent practicable. Some examples of stormwater best management practices (BMP) are:

Grassed Swales will be implemented within the landscaped areas where practical. Grass and groundcover provides natural filtration and allows for percolation into the underlying soils."

COMMENT: Chapter 18.20 of MCC which implements new post-construction water quality standards now required under Chapter16.26.3306 Maui County Code "Rules for the Design of Stormwater Treatment Best Management Practices " sets specific goals to be met by the project for reduction of water quality impacts. The DEIS does not specifically address how these standards will be met, only stating that the project's systems will "reduce the discharge of pollutants to the maximum extent practicable." The FEIS should include a discussion of the

capacity of detention basins to hold specific volumes of stormwater over a given period of time to allow the sediment loads to settle and be retained in the basin.

Ch 18.20 is much more specific. It requires projects to meet these standards:

1. After construction has been completed and the site is permanently stabilized reduce the average annual total suspended solid (TSS) loadings by 80%. For the purposes of this measure an 80% TSS reduction is to be determined on an average annual basis for the 2 year /24 hour storm.

2 Reduce the post development loadings of TSS so that the average annual TSS loadings are no greater than predevelopment loadings.

COMMENT: Creation of swales along contours actually allow them to capture more stormwater and more effectively recharge the underlying aquifer. This strategy should be discussed as part of the project's "Sustainable Practices."

The DEIS states: "A maintenance plan will be developed for the stormwater BMPs. The plan will include the requirements for removal of the accumulated debris and sediment, maintaining vegetation, and performing inspections to insure that the BMPs are functioning properly."

COMMENT: It is good to see the need for ongoing maintenance addressed in an EIS, as it is rarely discussed. The FEIS shoud discuss who will fund the ongoing maintenance activities during each phase of the development.

The DEIS states: "The drainage design criteria will be to minimize any alterations to the drainage pattern of the existing onsite surface runoff. No additional runoff will be allowed to sheet flow toward Kealia Pond."

COMMENT: The DEIS should have a specific discussion of direct compliance with County regulations regarding the quality of the water retained on the site. As with the existing runoff into Waikapu stream, existing onsite surface runoff towards Kealia Pond presents an opportunity to re-engineer and turn to biological solutions that improve water quality, even though only newly created runoff is REQUIRED to be mitigated by the project.

Wastewater:

The DEIS states in the PER: According to the Wastewater Reclamation Division, County of Maui, as of July 31, 2014, the KWRF has a capacity of 7.9 million gallons per day (mgd). The average flow into the KWRF is 4.7 mgd and the allocated capacity is 6.33 mgd. **The remaining wastewater capacity at the KWRF is approximately 1.57 mgd.**

COMMENT: Who is the allocated capacity promised to? Will it actually be utilized as planned?

p. 20 of the PER states: "The policy of the DEM is that **wastewater capacity cannot be reserved until the project is ready to receive building permits.** If capacity at the KWRF is available at the time building permits are ready to be issued for the project, **the project proposes to temporarily connect to the County's sewer system and complete the required upgrades to connect up to 650 units in the Phase I development."**

COMMENT: Appendix A Table III-4 gives a total of 690 units, not 650 in Phase I of the WCT project. Table III-4 also accounts only for the 1433 primary units and not the 146 ohana units

anticipated at full buildout which would include the 46 units anticipated in Phase I. Does this mean that part of Phase I (40 units plus 46 ohana's) would not have sewer capacity until a new treatment facility is built? How would that possibility be structured in the project? Would it affect any of the affordable housing units?

The DEIS states**: "**The Waikapu Country Town development will need to construct a stand-alone private wastewater treatment facility or partner with other projects in the Waikapu area, such as A&B's Waiale project or the County of Maui to construct a regional wastewater treatment facility. The planning and design of a stand-alone or combined wastewater treatment facility will be coordinated with the availability of capacity within the County system. If required, a private wastewater treatment facility will be designed, constructed and in operation upon completion of the first home.

In addition to any capacity that may be available in the County's sewer system, the developers are looking into several private wastewater treatment facility alternatives. The first is a conventional wastewater treatment facility. This alternative generally involves liquids treatment consisting of preliminary treatment, flow equalization, primary sedimentation treatment, secondary biological treatment, secondary sedimentation treatment, disinfection, and disposal. The treatment of solids includes stabilization, dewatering, and disposal.

The second wastewater treatment alternative is to utilize a Food Chain Reactor (FCR) configuration, consisting of biological treatment in successive reactor zones utilizing fixed biomass on a combination of natural plant roots and engineered biofiber media, along with a limited amount of suspended biomass. This alternative generally involves pretreatment, secondary biological treatment through a FCR zone, process aeration, chemical phosphorus removal/coagulation, flocculation, disinfection and disposal."

COMMENT: The EIS is the place to examine the impacts, advantages, costs and benefits of the two wastewater treatment technologies mentioned, and any anticipated mitigations needed, but they are not analyzed, only mentioned. The DEIS is incomplete without some analysis of strategies for wastewater disposal. The County of Maui appears clear in that any preliminary hookups for the project in the County's Kahului facility would be on a temporary basis while a new onsite or regional facility is being built. The EIS must explore the topic in greater depth, since very expensive offsite upgrades would be required to hook into the county system.

The DEIS states: "The Waikapu Country Town development could construct a stand-alone private wastewater treatment plant near **the northeast corner of the project site after the maximum units is serviced by the County's wastewater system.** However, the treatment plant will be needed in about 2017 and the developers will continue to work with the County and other projects within the Waikapu area on a collaborative wastewater treatment facility. At the time the wastewater treatment plant is constructed, any units which temporarily connected to the County's wastewater system will be connected to the new wastewater treatment plant."

COMMENT: How can a project inform the Land Use Commission that it plans to begin construction in 2017 or 2018 while it has no finalized plans for wastewater treatment as of 2016? There are no DEIS maps indicating the potential Wastewater Treatment site in the project area. The NE corner is near a school and park. The FEIS should analyze the various alternative treatment plant locations available on the 1579 acre project site with regard to their advantages and impacts.

WATER

Comment: A water quality analysis is required in the project's engineering report to identify all contaminants. The DOH Clean Drinking water branch commented on this requirement. The engineering report needs to satisfy requirements of HAR11-20-29.
Public water sources must also undergo a source water assessment, but the DEIS does not address this.

p. 23 of the DEIS, PER states: "According to the Commission on Water Resource Management, the sustainable yield of the Waikapu aquifer is 3.0 million gallons per day. The three potable water wells have been approved by the State of Hawaii, Commission on Water Resource Management for a **total pumping capacity of 2,300 gallons per minute (gpm)."**

COMMENT: The EIS should explain to the reader that 2,300 gpm capacity of the well pumps is actually, 3.3 mgd, or somewhat greater than the total capacity of the Waikapu aquifer. The two non- potable wells appear to account for 1100 gpm of that capacity, but it is not made clear if these wells have chloride levels that would render them unusable for potable purposes or what the expected non-potable demand of the agricultural activities on the project's 1074 acres of ag land will be.

The EIS states: "Based on the water usage, the projected water projected average daily water demand for **Phase I is 311,033 gallons per day (gpd)**. In accordance with the DWSWSS, the maximum daily water demand is calculated as being 1.5 times the average daily demand, or 466,550 gpd. The projected average daily water **demand for Phase II is 334,475 gpd** and the maximum daily water demand 501,713 gpd. Irrigation of parks and open spaces will be provided by the non-potable water system."

COMMENT: The DEIS water use chart does account for the 146 ohanas in its usage figures, but there should be a discussion of a larger demand if additional ohana units were to be constructed over time on the 970 Single Family units plus 80 Rural dwellings. The water demands of the possible 300 units of the 201-H project also appear to be left out of the discussion. Also, as noted before, the water chart does not include any information on estimated non-potable ag water use or potable water use on the 227 acres of "Ag lots." The Hawaii State Department of Agriculture also requested more information on Ag water use on the 5 ag lots on the 227 acres; this should be provided.

Appendix M "Boundary Amendment Petition" was left blank in the electronic version of the DEIS. This should be corrected.

General spelling/typo errors

p. III-35 **TYPO**: Waikapū Properties LLC is also raising a heard of Texas Longhorn Cattle on the higher elevation agricultural lands.
ALSO III-36 Grazing of WCT Long-horn Cattle (4). A heard of approximately 200 Longhorn cattle are currently grazing the WCT's mauka agricultural lands. It is envisioned that a larger heard of cattle may be established on WCT lands not used for other diversified agricultural uses.

same page: MISSING WORD: Renewable Energy (6). Establishing one **or** more small solar farms may be considered if these farms are technically and economically viable and do not interfere with agricultural operations.

FIG 24 map of ag master plan should have acreages of parcels

p.III-38 TYPO: EU.1.d
Incorporate adequate **transmit** stops throughout the development

p. 292 (pdf) VII-8 typo missing word:
The Applicant will strictly adhere **to the _____ set** forth by the State Commission on Water Resources Management (CWRM) to ensure that the pumpage from the on-site wells remains well within the sustainable yield for the aquifer.

Mahalo for this opportunity to comment. We support the general intent of the project design and are looking forward to the additional information being supplied in the FEIS.

Albert Perez,
Executive Director
Maui Tomorrow Foundation, Inc.

PLANNING
CONSULTANTS
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URBAN & REGIONAL PLANNING

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December 12, 2016

Mr. Albert Perez
Executive Director
Maui Tomorrow

Dear Mr. Perez:

Re: **Draft Environmental Impact Statement** Prepared for the Proposed Waikapu Country Town Project in Waikapu, Maui, Hawaii; TMK Nos: (2) 3-6-002:001, (2) 3-6-002:003, (2) 3-6-4:003, (2) 3-6-004:006, (2) 3-6-005:007 and (2) 3-6-006:036.

Thank you for your letter dated March 30, 2016, regarding the Draft Environmental Impact Statement (DEIS) prepared for the above-referenced project. In response to your comments, please find the following:

1. ***Population Estimates.*** In response to a DEIS comment, the Market Study and Economic and Fiscal Impact Assessment report prepared by the Hallstrom Appraisal Group | CBRE, Inc. in July 2015 was updated to address an error in the calculation of the Project's population. After adjusting for the error it was determined that the Project's de facto population would be 3,866 persons[1], which is an increase of 355 persons over the earlier calculation contained in the DEIS. Moreover, the population impact from the Project's 146 Ohana units is also being incorporated into the Market Study. If it is assumed that the Ohana units will be occupied exclusively by residents and that the population multiplier per unit is equivalent to 1.5 persons per unit, then the Ohana units would increase the project population by an additional 219 persons.

[1] Assumes 85% of single- and multi-family units are occupied by residents and the remaining 15% are occupied by part-time residents. It is assumed that part-time residents occupy their units 25% of the time. The population multiplier per single-family unit is 3.2 persons per unit and for multi-family units it is 2.6 persons per unit. It is assumed that all Ohana units are occupied by residents. As such the calculation was made as follows: [(1050 * .85)*3.2] + [(1050 * (.15)*(3.2)*(.25)] + [383*.85)*2.6] + [(383*(.15)*(2.6) *(.25)] + (146*2.6)

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Thus, the revised defacto population, including the 146 Ohana units, would be 4,085 persons and the revised resident population would be 3,922 persons. Using the revised population projection, the WCT's resident population impact represents approximately 9.93% to 18.51% of the region's projected resident population growth through 2035.

The average household size used for the WCT population forecast was 2.87 persons per unit, which is just higher than the 2010-2014 U.S. Census household size of 2.81 persons per unit for the Wailuku Census Designated Place (CDP). The WCT's estimate is slightly lower than the average occupancy of 2.94 persons per unit for Maui County, which is the figure that your letter references. Note that Section V.B.1, and other applicable sections, of the FEIS have been updated to address your comments.

2. ***Wastewater Treatment Site Location.*** Sections III.B.8, V.D.5, and Chapter VII of the FEIS have been updated to provide a thorough description of the WCT's preferred wastewater treatment facility. The analysis will includes a location map, description of the preferred location, alternatives to the preferred alternative, alternatives to the preferred location, and impacts from the facility.

3. ***Waiale Road Bypass Improvements.*** Please note that in response to comments from the County's Department of Public Works regarding the uncertainty of the timing of the Waiale Bypass road improvement, the FEIS includes an analysis of the traffic impacts and required mitigation measures at full buildout without the construction of the Waiale Bypass. This analysis is summarized in Section V.D.1 of the FEIS and incorporated in its entirety as Appendix M of the FEIS.

4. ***Final Water Quality Testing.*** Pump and water quality testing were recently completed on Well Nos. 1, 2 and 3 and the results are summarized in Section V.D.4 of the FEIS and incorporated in their entirety as Appendix I of the FEIS.

5. ***HC&S Agricultural Lands.*** In July 2016 HC&S notified the Applicant that it would no longer be leasing WCT agricultural lands. In response, WCT will be using those lands for diversified agricultural

production. Sections III.B.5, V.A.7 and V.D.4 of the FEIS have been updated to address the closure of HC&S.

6. ***Agricultural Preserve.*** The Agricultural Preserve will be dedicated in perpetuity to agricultural conservation once all of the entitlements for the WCT's proposed urban and rural lands are granted in accordance with the WCT Master Plan as described in Chapter III.B of the FEIS. It is anticipated that diversified agricultural development within the 800-acre Agricultural Preserve, as well as on the 277 additional acres of agricultural land to the north and west of the Preserve, will be ongoing through development of Phases I and II of the Project and in perpetuity thereafter. The WCT's Agricultural Preserve, and adjoining agricultural lands are shown conceptually in Section I, Figure 4 and in Section III.B.1, Figure 11, A-B and Section III.B.8, Figure 26, A-C of the FEIS.

7. ***Infrastructure and Public Facility Impacts from Ohana Units.*** The DEIS addressed the impact of the 146 Ohana units upon traffic, water and wastewater. Chapter V of the FEIS has been be updated to address the impacts of the Ohana units upon parks, police, fire, schools and solid waste. See Sections V.C.1, 2, 3, 4 and 5.

   For planning purposes, it was assumed that about 14 percent of the 1,050 single-family and rural lots would have Ohana units. It is possible that the Ohana units could be developed concurrently with the primary residence or at some undetermined future date by the individual property owner. Through the Project District Ordinance the number of Ohana units can be regulated by lot size, through a restriction to the permitted uses, by special use classification, or by a quota. However, it should be noted that Ohana units offer an important source of affordable housing on Maui, especially for seniors and young adults. Moreover, many of the infrastructure and public facility impacts associated with the development of Ohana units can be mitigated at the time of building permit application. Prior to the issuance of building permits impacts to water, wastewater, schools and parks can be mitigated through impact fees, or if warranted, by denial of the building permit due to insufficient infrastructure or public facilities. This is currently the practice of the County with respect to the issuance of water meters on many entitled lots within Central, South and Upcountry Maui. In any event, the impacts associated with

the development of the 146 Ohana units were largely documented in the DEIS, and where they were not documented, they have been documented in Chapter V of the FEIS.

8. ***Rental Housing***. The Applicant intends to incorporate rental housing within the project. However, the timing, quantity and location of the rental units are not known at this time.

9. ***201 H Affordable Housing Project***. Please note that a 201H project is not being contemplated at this time. The reference to the potential addition of a 300-unit affordable housing project will be removed from Appendix A, *Market Study, Economic Impact Analysis and Public Facilities Assessment*. However, the discussion of a 201 H project will remain in Chapter VIII, "Alternatives Analysis", of the FEIS.

10. ***Hiking Access into Waikapu Valley***. Public hiking access through the Project's agricultural lands into the Waikapu Valley will be carefully managed in order to mitigate land owner liability as well as impacts to natural and cultural resources. Access through the subject property by Native Hawaiians for the purpose of participating in cultural activities protected by State law will be maintained. Discussion with the Waikapu community will be ongoing to define appropriate management of public access into the valley once the Project is developed.

11. ***Agricultural Roads***. Chapter III.B.5 of the FEIS provides conceptual illustrations (Figure 26, A-C) of the agricultural roads within the 800-acre Agricultural Preserve.

12. ***Village Green***. The Village Green is intended to create a place of nature, beauty and open space within the center of the Village Center. It is envisioned that the green will be a popular public gathering place and will be suitable for a variety of formal and informal uses. The green is appropriately sized for this type of informal and passive recreational purpose.

13. ***Infrastructure Funding.*** As described in Chapter II.E of the FEIS and in Appendix A, "Market Study, Economic Impact Analysis, and Public Fiscal Assessment, the Applicant expects that the market will be strong enough to absorb the development within the 10-year schedule. Should the market demand be considerably weaker than projected, then the project schedule would be adjusted to meet the demand. Given the high up-front capital costs to develop the infrastructure to support the development, if market demand is too weak to support the Project's capital costs, then the Project as proposed would likely not be built.

14. ***Figure 29, Drainage Improvements.*** Please note that Figure 29 in the DEIS mistakenly repeated the proposed sewer improvements. This has been corrected in the FEIS. See Figures 34 and 36 of the FEIS.

15. ***Blackburn Sphinx moth Habitat.*** The Applicant will work closely with the Fish & Wildlife Service (FWS) to ensure that the project site is developed in a manner that complies with FWS guidance to minimize impacts to the Blackburn Sphinx moth. The Applicant does not anticipate any significant impact to the project design as FSW guidance allows for the removal of host plants pursuant established protocols.

16. ***Historic and Archaeological Resources.*** The Archaeological Inventory Survey (AIS) was prepared to address potential impacts associated with development of the WCT lands that are located within the Maui Island Plan's (MIP's) Urban and Rural Grown Boundaries. These lands comprise approximately 503 acres and are proposed for entitlement changes that would allow for their development. The agricultural lands beyond the Urban and Rural growth boundaries will remain in agricultural use as they have been actively farmed for over a century.

    The AIS was conducted for all lands proposed for development. The AIS also addressed traditional sites previously identified in adjoining lands and or near the project. These sites were discussed in significant detail in the Traditional and Historical Background and Previous Archaeology sections of the AIS. See Appendix E of the FEIS.

As described in the AIS, the Project's Area of Potential Effect is the lands that will undergo ground altering activities during development. These lands underwent pedestrian inspections and subsurface testing comprised of over 180 backhoe trenches (31 in 2007 and 150 in 2013) with primarily negative findings. Furthermore, the mauka most property along Waikapu Stream within TMK [2] 3-6-004:030 is to be developed utilizing only hiking trails and open space, which already currently exist, and thus minimal ground altering activities are anticipated; however, as noted, this area was subjected to 31 backhoe trenches in 2007. Note that these lands are to remain in agricultural use, are not subject to changes in land use entitlements, and will not be subject to urban or rural development.

Due to the extensive grubbing and grading activities which have occurred throughout the project area for the last 50 to 100 years, the likelihood of traditional surface historic properties was low. However the potential for subsurface cultural remains from the pre-Contact through the post-Contact period was low to high; thus extensive and intensive subsurface testing was initiated in preparing the AIS. The survey work of the project area (the proposed development areas) was well planned and executed and thus more than adequate. Monitoring is part of several mitigation strategies utilized to protect known and unknown historic properties and burials within a project area.

During the AIS work, informal discussions were performed with long-time landowners in the adjoining areas and with residents of Waikapu Town as it pertained to land use and archaeological issues. Since the Cultural Impact Assessment (CIA) for the project area was prepared and reviewed during the AIS procedures, formal interviews were not undertaken. See Appendix F, "Cultural Impact Assessment" of the FEIS.

17. ***Section VII-7-8 regarding Applicant "Commitments".*** As noted in the DEIS, the Applicant is committed to working with Waikapu community stakeholders to address concerns regarding sedimentation of the Waikapu Stream and how public access will be managed through the property and into the Waikapu watershed. In any event, access into the Waikapu Valley and along the Waikapu Stream will be available to Native Hawaiians in accordance with State law. The Applicant desires to work directly with stakeholders to identify

appropriate and mutually agreed upon commitments to address the access mangement issues.

18. Agricultural Lands and Potable Water Use.

- ***Future farm dwellings.*** The Maui Island Plan (MIP) directed 1,433 residential units, plus or minus ten percent, to the lands that comprise the WCT development. The DEIS states that the approximate 277 acres of agricultural lands not located within the 800-acre Agricultural Preserve may be subdivided into no more than five (5) agricultural lots. The potential potable water demand created by future farm dwellings on these lots were not accessed in the DEIS for the following reasons: 1) these lands are beyond the Project's urban and rural grown boundaries and are not included in the 1,433 units allocated to the development in the MIP; 2) there is no current proposal to subdivide these lands and build farm dwelling; and 3) a subdivision of these lands into agricultural lots can proceed independently of the WCT since the agricultural lands are already entitled.

  In any event, the WCT's proposed potable water system does have sufficient capacity to service these farm dwellings should they ever be built. It is estimated that the system's capacity will be approximately 3 million gallons per day (MGD) whereas the Project's estimated potable water demand is about 968,263 gallons per day (GPD). The agricultural water demand for all of the WCT's agricultural lands was estimated and incorporated into the Section V.D.4 of the FEIS.

- ***Irrigation of Agricultural Lands.*** Irrigation of the Project's agricultural lands will be from surface water from the Iao Stream via the Iao-Waikapu Ditch and Waikapu Stream via the South Waikapu Ditch and Waihee Ditch, which are operated by the Wailuku Water Company. These water sources, which are part of the larger surface water system known as the "Na Wai Eha", have been designated by the CWRM as a Surface Water Management Area. Before drawing water from the Na Wai Eha, a surface water use permit will be required from the CWRM, which has regulatory jurisdiction over the the Na Wai Eha. The Na Wai Eha has provided irrigation water to WCT's agricultural

lands, which were used historically for Kalo cultivation and thereafter for sugarcane and pineapple cultivation. In addition to Ditch water, the Applicant proposes to use agricultural wells and pump non-potable water that will be stored in agricultural reservoirs and also used for irrigation. The use of the agricultural wells will require a ground water use permit from the CWRM since the water would be drawn from the Waikapu Aquifer, which has been designated by the CWRM as a Ground Water Management Area.

An additional source of non-potable irrigation water will be recycled water from WCT's wastewater reclamation facility. Table 1 documents potential supply versus estimated WCT demand:

Table 1: WCT's Potential Non-potable Water Supply Versus its Projected Non-potable Irrigation Demand

Non-Potable Water Source	Estimated Historical Supply in MGD	Estimated Future Supply in MGD	Estimated WCT Demand in MGD	Surplus / Deficit in MGD
Ditch Water[2]	5.82[3]	5.82		
Pumped Well Water	N/A	Unknown		
Reclaimed Wastewater	N/A	.650		
TOTAL	5.82	6.47	3.42[4]	+3.05

[2] WCT's future use of ground water from the Iao and Waikapu Streams will require the issuance of a Surface Water Use Permit from the Commission on Water Resources Management. These permit requests have been filed but not yet issued.

[3] Based upon a water duty of 5408 gallons per acre per day (GAD). In the Na Wai Eha IIFS proceedings, the Commission on Water Resources Management determined that this was a reasonable daily water use requirement for sugarcane cultivation.

[4] Assumes a demand for 2.75 mgd to irrigate 1077 acres of agricultural lands based upon a water duty of 3400 GAD for diversified agriculture. This is the application rate used by the State Department of Agriculture for diversified crops. The estimate assumes that 75 percent of the crop land is being irrigated at any given time (1077*.75)*3,400 ≈ 2.75 MGD. Urban open space demand for non-potable irrigation water is estimated to be about 0.67 mgd.

As is shown in Table 1, it is expected that sufficient non-potable irrigation water will be available to irrigate the agricultural lands as well as the urban and rural open space lands.

Section V.D.4 of the FEIS has been updated to address your comments.

19. ***Acres in Agriculture.*** The agricultural lands comprise 1077 acres, of which 800-acres are within the Agricultural Preserve.

20. ***Monitor Well.*** The WCT water system is comprised of six (6) wells. Well Number 6 will be used as a monitoring well.

21. ***Acres for Parks.*** The County of Maui determines the required acres of parkland for a development based upon the following formula: [(Number of units minus three) * (500 square feet per unit)]. As such, if you add the 146 Ohana units to the 1,433 units proposed, the total acres required by the County for parks is 18.10 acres. As noted in the DEIS, there will be approximately 32.5 acres of active and passive park land, 80% more than required by the County. Moreover, an additional 50 acres of greenways and other open space elements are also planned within the WCT. Section V.C of the FEIS was updated to access any impact to public facilities, including parks, which might result from the projected change in the Project's population.

22. ***Elementary School Site.*** The State of Hawaii (DOE) requires both a land dedication as well as a construction fee to mitigate the Project's impact upon school facilities. The required land dedication for the project is 11.389 acres, whereas the Applicant is dedicating 12-acres to the State DOE. In addition to land, the State DOE will require a construction fee of approximately $2.6 million from the Applicant. Section V.C.5 of the FEIS discusses the WCT's Educational Contribution Agreement (ECA) that is in the process of being consummated between the Applicant and the DOE.

23. ***Single- and Multi-Family Workforce Housing.*** The precise mix of single- and multi-family units that will be offered for sale as Workforce

Housing units, in accordance with the provisions of MCC Chapter 2.96, has not been determined.

24. ***Acres in Agriculture.*** The acreages shown in the Preliminary Engineering Report (PER) have been revised and the updated report included in the FEIS as Appendix H. As noted in the DEIS, the WCT urban and rural development will comprise approximately 499 acres and the agricultural lands will comprise about 1,077 acres.

25. ***Runoff from Agricultural Lands into the Waikapu Stream.*** As noted, the Applicant is committed to working with Waikapu community stakeholders to address concerns regarding stormwater runoff from the agricultural lands that may be contributing to sedimentation of the Waikapu Stream. The implementation of on-site low impact development techniques (LID's) may help to mitigate these concerns. LID's that may be feasible along the upper reaches of the Waikapu Stream include: 1) a landscaped buffer and or riparian zone adjacent to the stream that is planted with vegetation to promote filtration and infiltration; 2) grass swales; and 3) bio-retention systems. All of these techniques are proven to promote infiltration and filtration of groundwater. The Applicant intends to consult with Waikapu stakeholders, including WCT and Kuleana farmers and cultural practitioners, to identify appropriate and mutually agreed upon commitments to address these issues. Sections III.B and V.D.3 of the FEIS describe the Project's drainage BMP's, including measures that might further mitigate sedimentation of the upper reaches of the Waikapu Stream from on-going agricultural activities.

26. ***On-site Runoff Calculation.*** The total increase in post-development runoff volume for Phase I, both mauka and makai of Honoapiilani Highway, is 920,879 cubic feet. This includes 148,916 cubic feet for Phase I mauka and 771,963 cubic feet for Phase 1 makai. Section V.D.3 of the FEIS documents the increase in runoff created by the Project.

27. ***Post-Construction Water Quality Goals and Standards.*** The Project's drainage system will be designed to meet the County's drainage and water quality standards. BMPs will consist of grassed swales and retention basins sized adequately to promote infiltration and filter pollutants to meet water quality standards. Other Low Impact

Development Techniques (LID's) will also be explored to help reduce runoff volumes, promote infiltration and filtration of groundwater. Some of these measures may include promoting rain gardens, the use of rain barrels, developing green roofs, and use of permeable paving surfaces, where appropriate, within residential, commercial, and institutional developments. The Applicant will also explore the opportunity of utilizing bio-retention swales with native plantings at appropriate locations within the street network to reduce and filter stormwater runoff and to take advantage of natural drainage for irrigation. Sections III.B and V.D.3 of the FEIS describe the Project's drainage BMP's.

28. ***Funding of Drainage Program Maintenance Activities.*** The funding of on-site programs to maintain the Project's stormwater BMP's will be the responsibility of an association of WCT property owners. However, the funding of stormwater BMP's for infrastructure that is dedicated to the public will be the responsibility of the State or County agencies receiving those facilities.

29. ***Biological Solutions to Improve Water Quality.*** Section III.B.6, "Sustainability Plan" and Section V.D.3, "Drainage" of the FEIS incorporate further discussion regarding the use of biological solutions to improve the quality of stormwater runoff.

30. ***KWRF Wastewater Allocation.*** According to the Department of Environmental Management's Wastewater Division, the difference between the average flow into the KWRF and the allocated capacity is to accommodate for peak flow events. The Applicant understands that the remaining 1.57 mgd of wastewater capacity is intended to service infill development within the County's existing wastewater service area.

31. ***Assessment of Wastewater Treatment Facility.*** In response to comments from the Department of Environmental Management stating that the WCT will not be allowed to treat its wastewater at the Kahului Wastewater Reclamation Facility (KWWRF) because of insufficient capacity, the Applicant has decided to construct a private wastewater reclamation facility on-site. Sections III.B.8, V.D.5 and Chapter VIII of the FEIS include a thorough description of the

preferred treatment facility and its alternatives, location, potential impacts, and mitigation measures.

32. ***Water Quality Analysis.*** The results of pump and water quality tests for three of the six on-site wells were completed in August 2016. The test results are summarized in Section V.D.4 of the FEIS and incorporated into the FEIS as Appendix I. Regarding water quality, water samples were collected from the pumping wells and tested by Eurofins Analytical, an approved lab, for testing of water from new potable water sources as required by the Hawaii Department of Health. The overall results for the three wells showed no pesticides or other organic chemicals present, and all other contaminants tested were non-detectable or below maximum contaminant levels (MCL).

33. ***Potable and Non-Potable Water Demand.*** A total of six wells have been drilled on WCT lands and their locations are shown in Section 5.D.4 of the FEIS. The DEIS Pump Test results were conducted for Well Nos. 1, 2 and 3. The 10-day Pump Test results show that Well No. 1 has a sustainable pumping capacity of 1.39 mgd or more with good water quality. Well No. 2 was shown to have a sustainable pumping capacity of 1.03 mgd, or more, producing good water quality. Well No. 3 was demonstrated to have a sustainable pumping capacity of less than 1.07 mgd, but additional testing is required to determine Well No. 3's sustainable pumping capacity with regard to chlorides. Well's 4, 5, and 6 have not been fitted with permanent casings and were not tested. Well 6 is intended to serve as a monitoring well.

As noted, Well Numbers 1 and 2 has a sustainable pumping capacity 2.42 mgd, producing excellent water quality. The Applicant expects that when all wells are developed the wells will be able to sustainably produce at least 3.0 mgd from the Waikapu Aquifer. It should be noted that the Waikapu Aquifer is within a designated Ground Water Management Area. The Commission on Water Resource Management (CWRM) regulates the use waters within Water Management Areas. Any use by the WCT of water from the Waikapu Aquifer will require prior approval of the CWRM. The CWRM will not permit pumping from the aquifer to exceed its sustainable yield.

Number 18 addressed previously in this letter documents the WCT's projected non-potable water demand and its proposed non-potable water supply. Section V.D.4, and other applicable sections, of the FEIS has been updated to address your comments.

34. ***Appendix M, Boundary Amendment Petition.*** The Applicant has confirmed that *Appendix M, Boundary Amendment Petition,* of the DEIS was made part of the downloadable electronic versions of the Land Use Commission's (LUC's) and Hawaii Office of Environmental Quality Control's (OEQC's) DEIS reports.

35. ***General Spelling/Typo. Errors.*** The Applicant appreciates your thorough review and interest in the DEIS. The FEIS addresses the spelling and typo errors you have identified in the DEIS.

The WCT's Final Environmental Impact Statement (FEIS) can be downloaded from the State Office of Environmental Quality Control's (OEQC's) website and the State Land Use Commission's website. The document may also be downloaded from www.waikapu.com. Thank you very much for your interest in this important Central Maui project. Should you have any questions, please contact me at (808) 269-6220 or by e-mail at msummers@planningconsultantshawaii.com.

Sincerely yours,

Michael J. Summers

Michael J. Summers
President

Attachment
c: Mr. Michael Atherton
Mr. Albert Boyce