NOV 0 6 2010

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October 20, 2010

Ms. Katherine Puana Kealoha, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

Dear Director Kealoha:

RE: Final Environmental Impact Statement (FEIS)
The Villages of 'Āina Le'a
TMK: (3) 6-8-01:25, 36, por 37, 38, 39, por 40 and (3) 6-8-02: por 19,
Waikoloa, South Kohala, Island of Hawai'i

The County of Hawai'i Planning Department has accepted the Final Environmental Impact Statement for the subject project and requests publication in the next issue of The Environmental Notice. Enclosed are one hardcopy and one CD of the FEIS and technical appendices, and an OEQC publication form and FEIS distribution list on CD.

Please call Daryn Arai or Maija Cottle of this department at 961-8288 if you have any questions.

Sincerely,

for BJ LEITHEAD TODD
Planning Director

MJC:smn
P:\wpwin60\Maija\Letters\OEQC\Villages of Aina Lea FEIS.doc

Enclosures

cc w/o enclosures: Mr. Daryn Arai, Planning Division
Mr. James Leonard, J M Leonard Planning

cc w copy of FEIS: Planning Department, Kona Office

FINAL
ENVIRONMENTAL IMPACT STATEMENT

THE VILLAGES OF ‘ĀINA LE‘A

Waikoloa, South Kohala District, Island of Hawai‘i
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39 and 40 (por.)
and (3) 6-8-002:19 (por.)

Accepting Authority: County of Hawai‘i Planning Department

Applicant: DW ‘Āina Le‘a Development, LLC
(Prior Applicant: Bridge ‘Āina Le‘a, LLC)

Prepared By:

J M Leonard Planning, LLC

September 2010

THE VILLAGES OF ʻĀINA LEʻA

FINAL ENVIRONMENTAL IMPACT STATEMENT

This Final EIS has been submitted pursuant to Chapter 343, Hawaiʻi Revised Statutes; the Department of Health's Title 11, Chapter 200, Hawaiʻi Administrative Rules; the Environmental Impact Statement Rules of the Office of Environmental Quality Control; and the County of Hawaiʻi environmental reporting requirements as set forth in Sections 25-1-5, 25-2-42 and 25-6-44, Hawaiʻi County Code, and County Planning Department Rule 14.

Accepting Authority: County of Hawaiʻi Planning Department

Applicant: DW ʻĀina Leʻa Development, LLC
(Prior Applicant: Bridge ʻĀina Leʻa, LLC)

Prepared By:

J M Leonard Planning, LLC

September 2010

This Final Environmental Impact Statement and all ancillary documents were prepared under my direction or supervision and the information submitted, to the best of my knowledge, fully addresses document content requirements as set forth in Sections 11-200-17 and 11-200-18, Hawaiʻi Administrative Rules, as appropriate.

Robert Wessels, President of RELCO Corp.
As Manager of DW ʻĀina Leʻa Development, LLC

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LIST OF ACRONYMS, ABBREVIATIONS AND TERMS

ALISH	Agricultural Lands of Importance to the State of Hawaiʻi
CFD	Community Facilities District
CZM	Hawaiʻi Coastal Zone Management
DEIS	Draft Environmental Impact Statement
DLNR	Department of Land and Natural Resources
DNL/Ldn	Day-Night average sound Level
DOH	State Department of Health
DPW	County of Hawaiʻi Department of Public Works
DWS	County of Hawaiʻi Department of Water Supply
EIS	Environmental Impact Statement
EISPN	Environmental Impact Statement Preparation Notice
FHA/HUD	Federal Highway Administration/Housing & Urban Development
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
HAR	Hawaiʻi Administrative Rules
HCC	Hawaiʻi County Code
HELCO	Hawaiʻi Electric Light Company
HRS	Hawaiʻi Revised Statutes
ILWU	International Longshore and Warehouse Union
mgd	millions of gallons per day
MLR or ML	Mauna Lani Resort or Mauna Lani
msl	mean sea level
NFPA	National Fire Protection Association
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Services
OEQC	Office of Environmental Quality Control
PUC	Public Utility Commission
SHPD	State Historic Preservation Division
SLU	State Land Use
SLUC	State Land Use Commission
TIAR	Traffic Impact Analysis Report
TMK	Tax Map Key
UBC	Uniform Building Code
UFC	Uniform Fire Code
USACE	US Army Corps of Engineers
USDA	US Department of Agriculture
UXO	Unexploded Ordnance
WWTP	Wastewater Treatment Plant
makai	Seaward, or directionally towards the ocean
mauka	Inland, or directionally towards the mountains
ahupuaʻa	Land division usually extending from the uplands to the sea

EXECUTIVE SUMMARY

This Final Environmental Impact Statement (FEIS) has been prepared to provide the Hawaiʻi County Planning Department and County Council and the public and interested parties with information regarding the potential impacts of the proposed DW ʻĀina Leʻa residential golf community in Waikoloa, South Kohala, Island of Hawaiʻi (TMK: (3) 6-8-001:25, 36, 38, 39, and portions of 37 and 40 and of 6-8-002:19). The EIS presents the existing environmental conditions, analyzes the potential effects of the Project, and identifies proposed measures to mitigate potential adverse effects. Various sections in this Final EIS have been adapted to reflect input received in the comment letters, or otherwise from governmental agencies, regarding the Draft EIS. Additional or modified text, not including those parts related procedurally to producing the Final EIS, is denoted by double-underlining, as demonstrated in this paragraph.

ES-1 APPLICANT ACTION AND PROJECT

The action proposed by the new applicant, DW ʻĀina Leʻa Development, LLC, is the review of a Project District Zoning Application by the Hawaiʻi County Council that would allow development of a residential golf community on 1,060 acres of land, including intersection improvements to the State's Queen Kaʻahumanu Highway, and the construction of a park and project-related infrastructure, including the construction of power- and water-related utilities and a wastewater treatment plant, on the adjacent lands. The Highway improvements and wastewater treatment plant have "triggered" State environmental law compliance.

It should be noted that land-use approvals for a residential golf community on 3,000 acres of land were secured in the late 1980s to the mid-1990s by the previous landowners, Bridge ʻĀina Leʻa, LLC. In February 2009, DW ʻĀina Leʻa Development, LLC and Relco Corp. purchased approximately 1,092 acres of the 3,000 acres. Project District zoning, which would affect about 1,060 acres of land in the State Land Use Urban area, is being requested to allow for greater planning flexibility in response to site considerations and changing market conditions.

The Project consists of developing approximately 790 single-family home sites, 1,047 multiple-family units, and up to 500 affordable/workforce housing units. Also included are a commercial village, mixed-use areas, one golf course, a golf lodge of up to 40 units, golf academy, golf clubhouse, parks and a preserve, recreational amenities, and related infrastructure, including a wastewater treatment plant.

Initially, 385 affordable/workforce housing units are being constructed onsite to comply with a condition imposed by the State Land Use Commission. When completed, those units will be sold under County's affordable housing guidelines. Domestic water for the affordable housing project has been purchased from the private water purveyor, West Hawaiʻi Water Company. Irrigation water for landscaping has been contracted by a separate agreement with the West Hawaiʻi Sewer Company in exchange for an upgrade to the private wastewater treatment plant that would treat the R-2 quality water to an R-1 level.

Two parks and a botanical preserve were required to be set-aside as a condition of the 1993 zoning ordinance. The existing zoning approval contained a condition requiring that a 10-acre active park be developed in the first phase of development. However, the Applicant has offered to increase the size of the active park to 16 acres. The park will be maintained in private ownership unless and until the County desires to take it over. A 16-acre nature park will be set aside in a later phase of development. A 5-acre preserve next to the nature park would protect *Abutilon menziesii*, a federally listed endangered species known as ko‘oloa‘ula or red ‘ilima. Probably due to a severe three-year drought in the late 1990s, the red ‘ilima could not be found during field surveys conducted both in 2000 and in 2010 and is believed to have succumbed to the drought condition. A follow-up survey following a period of extended rain was recommended to confirm its presence and the need for the 5-acre-preserve area. This survey will be conducted prior to land alterations in the vicinity of the preserve. Appropriate action will be taken as recommended by the U.S. Fish and Wildlife Service and the State Department of Land and Natural Resources after review of the follow-up survey.

Sites for a public school and a community center on adjacent lands are being discussed with the Department of Education and the Department of Parks and Recreation, respectively, but the location and scope of the facilities has yet to be determined.

The County’s domestic water system will be upgraded with the phased addition of up to four wells, transmission lines, and storage reservoirs. The upgrade will provide additional supply and back-up to the Lalamilo component of the County’s South Kohala water system that does not currently exist.

A private wastewater treatment plant to service the remainder of the project will be constructed on adjacent property (portion of Parcel 40) owned by and developed under agreement with Bridge ‘Āina Le‘a. The facility proposes to use a membrane bioreactor process that will filter out suspended solids, including harmful microorganisms. This plant will be designed to produce R-1 quality water that can then be used for irrigation purposes.

Access to the Project from the Queen Ka‘ahumanu Highway will be phased via two access points. Phasing would occur with development. The initial access will be at the Project’s intersection with Mauna Lani Resort, which will be fully channelized and signaled. The second access road to the north is proposed to provide a mauka-makai connection with the Waikoloa Village community at Hulu Street. The specific alignment of the second road has yet to be determined, although negotiations with the County and community representatives have been ongoing for several years. Interior project roads would be constructed to meet with the requirements of the County Department of Public Works.

ES-2 PROJECT PURPOSE, NEED, AND OBJECTIVES

The Project integrates a proposed inland residential community with the surrounding communities of Waikoloa Village, Puakō and the coastal resorts. The primary objectives of the Project and Project District zoning are to:

- Implement the Project as an integral and contributing part of the Puakō, Mauna Lani and Waikoloa communities.
- Provide recreational amenities, self-contained commercial facilities, and adequate infrastructure to service the new community.
- Design and implement the Project in a manner that is sensitive to the environmental and scenic resources of the area.
- Plan to provide connectivity of roads and other crucial infrastructure systems.
- Be responsive to the changing demands and needs of the global and local markets.

ES-3 ALTERNATIVES TO THE PROPOSED ACTION

Alternatives to the desired action that have been considered are:

1) No action/undeveloped
2) Develop according to original master plan
3) Develop to existing zoning
4) Develop at lower densities
5) Postpone action for future study
6) Preferred alternative

ES-4 POTENTIAL ENVIRONMENTAL IMPACTS

Hawai‘i Administrative Rules Title 11, Chapter 200, EIS Rules, direct the focus of the environmental analysis such that special emphasis is placed on environmental resources that are rare or unique to the region and the project area, including natural or human-made resources of historic, archaeological, cultural or aesthetic significance. The potential impacts of the Project are evaluated within the framework of compliance with applicable rules, regulations, and requirements for the project type and location.

During construction of the Project there will be temporary adverse impacts due to noise, traffic, and dust. There is also a potential for construction-related accidents, including fire and the accidental release of hazardous materials or solid waste such as construction materials. Through compliance with all applicable rules, regulations, and requirements for the Project, these potential temporary impacts should be minimal.

Potential longer-term Project impacts are summarized in Table ES-1.

Table ES-1
Potential Environmental Impacts, Compliance and Mitigation Measures

SUBJECT	POTENTIAL ENVIRONMENTAL IMPACT	COMPLIANCE AND MITIGATION MEASURES
SOILS	Project-related construction could result in soil loss through soil erosion and fugitive dust generation. There would be no negative impacts to agriculture as the property has little agricultural value based on soil and site characteristic and no existing agricultural use.	Compliance with industry best management practices and State and County regulations, including adherence to Erosion Control Plans in compliance with Chapter 10, Erosion and Sedimentation, of the County Code; and HAR Chapter 55, Title 11 of the State Department of Health (Water Pollution Control).
NATURAL HAZARDS		
Hydrology and Water Resources	Water resources in the region, with implementation of Project-related improvements, are more than sufficient to meet the both the potable and irrigation needs of the Project. Brackish water resources in the area of the Project corridor could be insufficient to meet the needs of future development of other adjacent lands without a coordinated resource conservation plan.	Water conservation to be encouraged though the use of drought-tolerant plants and trees, mulching landscaped areas, and applying project-wide conservation strategies. Reclaimed wastewater will also be used to supplement irrigation water requirements. The Applicant will work with regional and government stakeholders to develop long-term resource conservation plan to address short- and long-term efforts towards resource sustainability.
Flooding	While Project development will remain outside the areas of existing drainage ways that transect the property, drainage crossings will be required for project roadways and utilities.	Compliance with federal, state, and county regulations in the permitting, design, and construction of drainage way crossings. Improvements and drainage related structures to conform to standards set forth in Chapter 27 relating to Flood Plain Management.
Tsunami	No impacts are anticipated.	
Hurricane	Although infrequent, hurricanes can impact the area.	Compliance with County Building Department and Uniform Building Code (UBC) requirements.
Earthquakes	The entire Island of Hawai‘i is designated in Seismic Probability Rating Zone 4, the highest rating. This includes areas at risk of major earthquake damage, especially structures that are poorly designed or built.	Compliance with County Building Department and Uniform Building Code (UBC) requirements.
Volcanic Activity	Project area is designated in Lava Hazard Zone 3 (on a scale from 1 to 9) indicating an area of relatively low potential for lava hazard.	Preparation and compliance with a County-required Emergency Preparedness and Response Plan in coordination with the County Civil Defense Agency.
Wildfires	Wildfires pose a frequent threat to the South Kohala area.	Golf lakes and natural buffers mauka and makai of the development area can supplement community fire protection measures. Access roads, water supply, and buildings to be designed and constructed in compliance with the County regulations and Uniform Fire Code requirements. Creation of the planned mauka-makai connector road will enhance the emergency access capability of the area. Applicant will also work with the Hawaii Wildfire Management Organization to coordinate wildfire protection strategies.
Botanical Resources	A federally listed endangered species, *Abutilon menziesii*–known as ko‘oloa‘ula or red ‘ilima, was found on the Property, although follow-up surveys in 2000 and 2010, after periods of severe drought, did not find this plant.	A 5-acre plot, including a buffer area, has been identified for preservation. The plot will be resurveyed prior to land alterations in the vicinity and following a period of extended rain, when rainfall will improve the growing possibilities.

SUBJECT	POTENTIAL ENVIRONMENTAL IMPACT	COMPLIANCE AND MITIGATION MEASURES
Avifaunal & Mammals	The Property is not a habitat for any endangered species of bird or mammals. No endangered species were identified on the Project site. Endangered seabirds, though not observed, could fly over the Property. The potential presence of tree tobacco, a plant commonly found in disturbed areas, would provide potential habitat for the endangered Blackburn's sphinx moth.	Adherence to existing County lighting requirements to minimize the potential for disorienting endangered seabirds that might fly over the development area. The Applicant will conduct an additional survey of the Project site for the presence of Blackburn's sphinx moth prior to further land alteration and, if found, would work with the USFWS in the preparation of an appropriate mitigation plan for its protection on the site.
Archaeological Resources	Protection of the two archaeological sites identified on lands mauka and makai of the Project development area require adherence to existing and approved protection and mitigation plans. During development there is the potential for inadvertent archaeological or historical discoveries to be uncovered during the course of construction.	Adherence to the provisions of all protection and mitigation plans approved by the State Historic Preservation Division. Should any inadvertent archaeological or historical discoveries be encountered in the course of development, work in the affected area would cease and the State Historic Preservation Division would be immediately notified for review and assessment.
Cultural Resources	Minimal cultural impacts are anticipated. Portions of a cattle drive trail have been identified on a small section of Property.	Portions of the cattle drive trail will be preserved and integrated within the Project where possible.
Ordnance and Explosives	Property is in the Former Waikoloa Maneuver Area where unexploded ordnance has been found.	The U.S. Army Corps of Engineers is implementing an unexploded ordnance and munitions removal and remediation program for the Property. Survey of the full property will be phased to precede development. Sales documents will disclose the potential for the presence of UXO in the area.
Roads and Traffic	Potential impacts to existing and planned intersection levels of service without sufficient traffic mitigation measures in place.	A broad range of traffic-related improvements, as recommended by the Traffic Impact Assessment Report, are planned as part of the development, including a mauka-makai connector road to Waikoloa Village.
Noise Quality	Potential impacts to noise sensitive areas within the development from traffic along major project roads.	Appropriate setbacks and other mitigation measures will be incorporated in the planning and design of residential structures situated along major Project roadways.
Air Quality	No significant long-term impacts anticipated	
Visual and Scenic Resources	The visual character of the site when viewed from surrounding areas will be changed from an open, undeveloped area to a more urban and landscaped environment.	An average 1,200-foot wide, open space buffer established along the property boundary with Queen Ka‘ahumanu Highway will preserve the mauka view corridor. Waikoloa Village is approximately 1 mile from the Project. The Project setbacks and open space elements, and a 35-foot building height limit combine to minimize the potential impacts to the view planes from the surrounding areas.
Socio-economic Environment	At build-out, the Project would have a marked impact on the socio-economic character of the area. While providing employment and adding to the public infrastructure and recreational, commercial, and public service opportunities of the region, area residences have expressed particular concern regarding housing, traffic impacts and the provision of public facilities and services in proportion to the growing development of the area.	In addressing the potential socio-economic impacts of the Project, the Applicant has committed to providing immediate affordable housing, traffic, park improvements, a school site, and, as required by zoning approvals, contributions to the provision of County roadway, recreational, solid waste, police, and fire facilities and services. The applicant has also committed to providing areas for additional police, fire, and EMS facilities within the Project, should these be needed.

SUBJECT	POTENTIAL ENVIRONMENTAL IMPACT	COMPLIANCE AND MITIGATION MEASURES
INFRASTRUCTURE AND UTILITIES		
Water System	Project water system will be integrated with and enhance the capacity of the DWS South Kohala System. A dual potable/irrigation water system is planned. Measures are needed to protect against the potential of cross contamination between the potable and irrigation water systems.	Compliance with State and County regulations in the design and construction of all water system improvements. Compliance with HAR Section 11-21 related to Cross Contamination and Backflow Control.
Wastewater	A Wastewater Treatment Plant will be constructed to meet the full needs of the Project.	Compliance with State and County regulations in the design and construction of WWTP and collection system.
Solid Waste	At build-out the, Project could potentially generate up to 10 tons of solid waste impacting the County facilities in the area.	Applicant will prepare and implement a County approved Solid Waste Management Plan aimed at implementing strategies to reduce the amount of solid waste directed to the local landfill. Contributions to support needed improvements to County solid waste facilities will also be made through meeting the “fair-share” contribution requirements imposed as part of zoning approvals.
Drainage	A Drainage Master Plan projects that, at build-out, approximately 20,000 cubic feet of storm water runoff will be generated within the project during each 50-year storm event.	All development-generated runoff must be retained onsite through the use of drywells, bio-swales and detention/retention basins. The Drainage Master Plan recommends a strategy and drainage system to handle the runoff onsite.
Electrical & Communications	The Project will initially draw electricity from the South Kohala substation. The increase in electrical demands will require the construction of a substation onsite to handle the Project demand.	The Applicant will coordinate the construction of a new onsite substation with HELCO.
PUBLIC FACILITIES AND SERVICES		
Recreation	The new residential population generated by the Project will significantly impact parks in the area.	Applicant is required to develop a 10-acre active park as part of the Phase 1 development, but has offered to increase the park’s size to 16 acres. The park will be privately held and maintained until the County desires ownership. A 16-acre passive park is also to be set aside, and will be privately maintained. Providing land for a community center is also being discussed with the Department of Parks and Recreation.
Police, Fire and Emergency Protective Services	The Project will contribute to the growing demand for police, fire, and emergency medical services.	The Project will contribute to expanding public service requirements in the area though the fair-share contribution requirements that are imposed at the time of zoning approvals. Applicant would also provide areas within the commercial portion of the Project for use as sites for additional police, fire and EMS facilities, if needed.
Health Care	Access to medical and urgent care facilities has been identified as a concern of area residents. Existing facilities are located a considerable distance away in Waimea and Kailua-Kona.	Applicant has proposed that a privately operated urgent care medical service facility could be located within the Commercial Center portion of the Project and has had discussions with potential urgent care providers in assessing their interest, capabilities, and siting needs.
Schools	The new residential population, at build-out, is projected to produce approximately 1,000 school-aged children that would feed into the Waikoloa Elementary/Intermediate School and Kealakehe High School.	The Applicant is required by the LUC to set aside a maximum of 16 acres of land towards a public school site as may be determined by the DOE. However, the Applicant has set aside 32 acres as a potential school site. The DOE has made no commitment as to the timing or type of school at the site.

ES-5 CONSISTENCY WITH LAND USE PLANS, POLICIES, AND CONTROLS

The proposed Project is consistent with the goals, objectives and policies of the Hawaiʻi State Plan and the Coastal Zone Management Act.

The Project is consistent with the existing State Land Use Urban and Agricultural classifications.

The Project is consistent with the General Plan, which identifies the area for Urban Expansion and the area of the highway buffer as Conservation. The Project supports numerous goals, policies, and objectives of the General Plan relating to the Economic Element, Environmental Quality, Flooding and Other Natural Hazards, Historic Sites, Natural Beauty, Natural Resources and Shoreline, Housing, Education, Protective Services, Water, Sewer, Recreation, Transportation, and Land Use.

The proposed Project is consistent with the South Kohala Community Development Plan, which designates the Project site and surrounding area for planned development of 3,000 or more units, five golf courses, golf academy, commercial villages and a 40-unit lodge.

The existing zoning within the Project Site is a combination of Multiple-Family Residential (RM-4, RM-7, RM-14.5), Village Commercial (CV-10), Residential-Agricultural (RA-1a), and Agricultural (A-5a) zoning designations. With the submittal of the planned rezoning application, the Applicant will be requesting that the existing zoning be changed to Project District zoning.

ES-6 REQUIRED PERMITS AND APPROVALS

The proposed Project has received several land-use approvals, including State Land Use approval that placed the affected portions in the SLUC Urban District and County zoning, and subdivision approvals. The primary discretionary approval being sought will be a request for a change of the existing zoning designations to a Project District zoning, after which appropriate site plan approval, subdivision and plan approvals will be sought from the County Planning Department. Additionally, Special Permit approval will be required from the County Leeward Planning Commission for construction of the Wastewater Treatment Plant in the State Agricultural District. A broad range of permit and plan approvals will be also be required from Federal, State and County agencies for the construction of the various elements of the project infrastructure, including those related to utility stream crossings, well and pump installations, wastewater plant design and construction, highway related improvements, grading and grubbing, roadways, drywells, utilities, and solid waste disposal, water, sewerage, and drainage systems.

ES-7 CUMULATIVE AND SECONDARY IMPACTS

In general, West Hawaiʻi and the Project area in particular has experienced and is expected to experience continued growth, which is driven primarily by a growth in the visitor industry and associated real estate. The Villages project and the other ongoing and planned developments in the area will be a part of that growth and change. The most apparent change in the socio-economic environment will be the visual impact to the landscape as a more urbanized

environment replaces what are now primarily undeveloped and vacant lands. The Project, when examined in conjunction with the other planned growth in the area, is expected to have long-term cumulative impacts on traffic, water resources, and solid waste facilities. There will also be an increase demand for public facilities and services, including recreational facilities, schools, medical services, and police and fire protection. While the Project will be accompanied by appropriate mitigation measures to address these impacts, and the accompanying economic development will generate jobs and provide additional tax revenues to help fund needed public facilities and services, the jobs created through this development and the infrastructure that is created can serve as attractors for new residents to the area and potential development of adjacent lands.

ES-8 SUMMARY OF UNRESOLVED ISSUES

Those issues that remain unresolved primarily focus on the provision of public facilities and services to the area in response to the needs of this and other developments in the area. For instance, while the Applicant will be setting aside as much as 32 acres for a potential school site, it remains up to the State Department of Education as to when this would be constructed and whether this would be a middle or high school facility. Similarly, while areas for police, fire, and emergency services can be accommodated within portions of the project, if needed, it remains with the respective agencies to decide if construction of new facilities or expansion of existing facilities is preferable. So, while the Project may commit to contribute to the provision of expanded public facilities through numerous means, including “fair-share” requirements that are imposed at the time of zoning approval, provision of land or infrastructure development and the manner in which such facilities are to be developed has yet to be determined. Along the same vein, a decision on the location of the planned mauka-makai roadway connection from Queen Ka‘ahumanu Highway to Waikoloa Village has yet to be made and will be dependent upon further discussions with the County and Waikoloa Village representatives, along with the availability of the planned Community Facilities District funding required for its design and construction. Lastly, while an assessment of the water resources in the area indicates there to be sufficient resources to meet the needs of this Project, the assessment notes that the available ground water resource in the area of the Project corridor may be insufficient to meet the requirements of future development on adjacent and nearby lands without the development of a coordinated water management strategy to insure that water use is maintained at sustainable levels.

1 INTRODUCTION AND SUMMARY

1.1 LEGAL REQUIREMENT: COMPLIANCE WITH STATE OF HAWAIʻI AND COUNTY OF HAWAIʻI ENVIRONMENTAL LAWS

The State of Hawaiʻi environmental review procedures and requirements are set forth in Chapter 343, Hawaiʻi Revised Statutes (HRS), and the Department of Health's (DOH) Title 11, Chapter 200, Hawaiʻi Administrative Rules (HAR), Environmental Impact Statement Rules of the Office of Environmental Quality Control (OEQC). The County of Hawaiʻi environmental reporting requirements are set forth in Sections 25-1-5, 25-2-42 and 25-6-44, Hawaiʻi County Code (HCC), and County Planning Department Rule 14. This EIS has been prepared pursuant to the aforementioned State and County laws and administrative rules.

The notice of availability of the Draft EIS was published in the Office of Environmental Quality Control (OEQC) May 23, 2010 issue of *The Environmental Notice* and the official 45-day comment period for the Draft EIS was from May 23, 2010 to July 7, 2010. The DEIS was preceded by The Villages of ʻĀina Leʻa Environmental Impact Statement Preparation Notice ("EISPN"), with notice of availability published in OEQC's December 8, 2007 issue of *The Environmental Notice*. Copies of the EISPN were provided to appropriate government agencies and organizations. The public comment period for the EISPN ended on January 7, 2008.

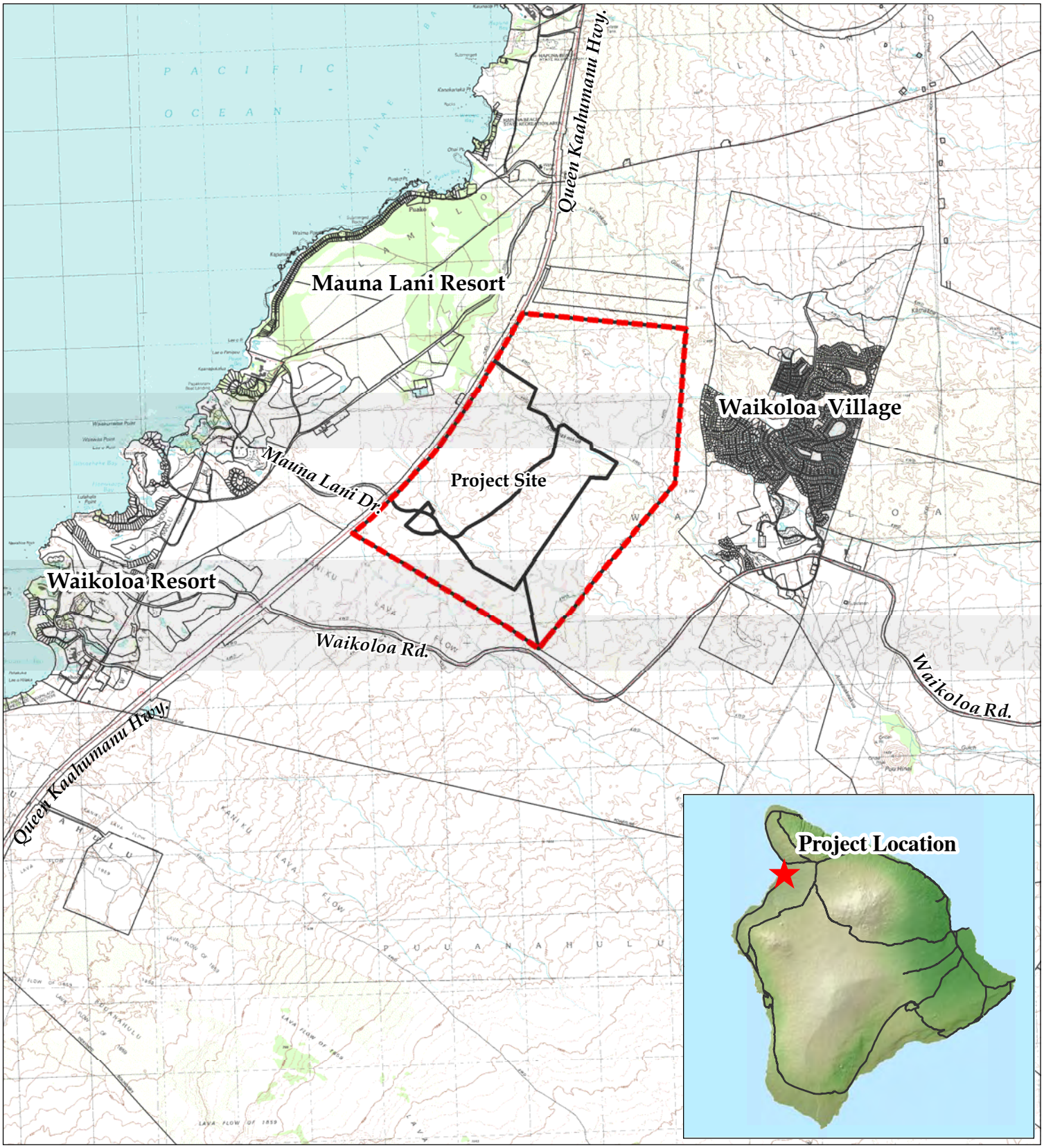
Applicable comments on both the EISPN and Draft EIS have been incorporated into the EIS. Copies of the distribution lists, substantive comment letters and responses are included in Chapter 10 for the EISPN and Chapter 11 for the Draft EIS.

1.2 CHANGE IN SCOPE OR SIZE OF PROJECT

The November 2007 Environmental Impact Statement Preparation Notice (EISPN) was prepared for The Villages of ʻĀina Leʻa, which was an overall master planned residential golf community on 3,000 acres of land at Waikoloa, Island of Hawaiʻi, State of Hawaiʻi. The land was previously entirely owned by Bridge ʻĀina Leʻa, LLC, ("Bridge").

The scope of the project covered in this EIS has been reduced in area due to the purchase of approximately 1,092 acres of the 3,000 acres by DW ʼĀina Leʻa Development, LLC and Relco Corp. ("Applicant") in 2009. These lands are now identified by TMK: (3) 6-8-001:25, 36, 38, and 39 ("Applicant's Property"). This EIS will describe the project proposed by the Applicant on its land and portions of the adjacent Bridge properties, identified as portions of TMKs (3) 6-8-001:40 and 37, totaling a project area of approximately 1,141 acres, collectively referred to as the "Project" for the purposes of this EIS. The Project will also require the construction of certain power and water utilities that cross over the adjacent Waikoloa Village Association lands, identified as portions of TMK (3) 6-8-002:19.

Figure 1 illustrates the region and location of the Applicant's Property. Figure 2 is a tax map (updated from the Draft EIS) showing the configuration of the recently consolidated/resubdivided properties at Waikoloa, Island of Hawaiʻi, Judicial District of Hawaiʻi.



Legend

- Property Boundary
- Hawai`i County TMK

FIGURE 1

Island of Hawai`i Regional and Location Map

The Villages of ʻĀina Leʻa

DW ʻĀINA LEʻA DEVELOPMENT, LLC

ISLAND OF HAWAII

NORTH

LINEAR SCALE (FEET)

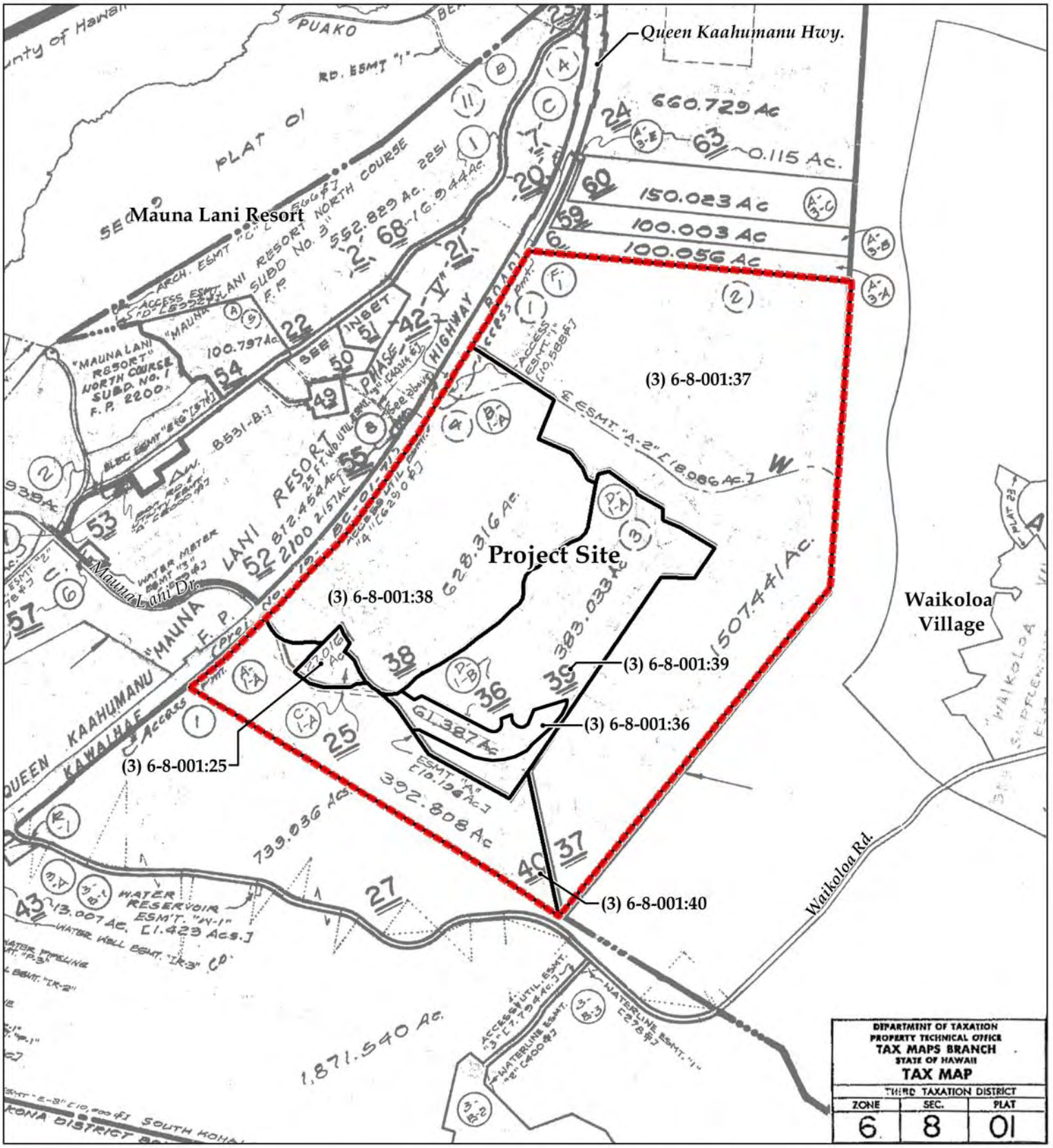
0 1,500 3,000 6,000 12,000

PBR HAWAII & ASSOCIATES, INC.

05/03/2010

Source: U.S. Gological Survey Map (GIS), Hawaii County 2009 Tax Map Key (GIS)

Disclaimer: This graphic has been prepared for general planning purposes only.



Legend

Property Boundary

FIGURE 2

Tax Map Key Parcels

The Villages of ʻĀina Leʻa

DW ʻĀINA LEʻA DEVELOPMENT, LLC

ISLAND OF HAWAII

NORTH

LINEAR SCALE (FEET)

0 750 1,500 3,000 6,000

PBR HAWAII & ASSOCIATES, INC.

09/22/2010

Source: Hawaii County Tax Map Key 2010

Disclaimer: This graphic has been prepared for general planning purposes only.

The Applicant still intends to seek rezoning of 1,060 acres of its Urban lands to a Project District zoning, which would provide greater planning flexibility in responding to various site and market considerations. The planned Project District zoning would apply only to the applicant's development of its Urban lands and related infrastructure and community facilities on adjacent Agricultural lands, which would be separate from any future action or development of the adjacent Bridge lands. A detailed description of the Project and the requested Project District zoning is found in Chapter 2 of this EIS.

1.3 PROJECT DEFINITION

The "Project" proposed by the Applicant includes approximately 790 single-family residential lots, 1,047 multiple-family residential units, 125 residential units in a mixed-use (commercial/residential) setting, up to 500 affordable/workforce housing units and a golf course with driving range, clubhouse and amenities. It also includes a golf lodge of up to 40 units, a golf academy, a commercial village, a mixed-use core, parks and open space, and related infrastructure, including a wastewater treatment plant. The Master Plan for the project is shown conceptually in Figure 3. The terms "Project site" and "The Villages" will also be used in this EIS to refer to the Project.

The term "Project District zoning" refers to the specific County zoning district that is being requested. The Project District zoning request covers 1,060 acres of Urban land on which most of the Project will be built. In addition to the development within the Project, certain power and water utility connections will be made to the project from HELCO and Waikoloa's existing utility systems in the area. These utility corridors, which extend over the adjoining Waikoloa Village Association property (TMK 6-8-02:19) would allow for power and water utility lines, water tanks, and utility access road improvements. The location and alignment of the electrical power and water utility associated with the Project are shown in Figure 4, Villages of ʻĀina Leʻa Project Utility Connections.

1.4 APPLICANT

The Project is an applicant action by DW ʻĀina Leʻa Development, LLC, to develop a residential golf community and related infrastructure on approximately 1,141 acres of land. The Applicant is a limited liability company incorporated on June 12, 2007 under the laws of the State of Nevada and is qualified to do business in Hawaiʻi. The Applicant is a sole purpose entity formed to purchase and develop the lands that comprise The Villages of ʻĀina Leʻa. It should be noted that Bridge is no longer the applicant for the Project.

The contact information for the Applicant is:

DW ʻĀina Leʻa Development, LLC
Mr. Robert Wessels, Managing Partner
68-4747 Queen Kaʻahumanu Highway
Kamuela, Hawaiʻi 96743

Land Use Summary

(Land Within Urban District)

	Land Use	Proposed Approx. Acreage	Proposed Approx. Units	Gross Floor Area
SF	Single Family (SF)	± 255	± 790	-
MF	Multi-Family (MF)	± 165	± 1,047	-
MU	Mixed Use (MU)	± 25	± 125	± 80,000 sf
AWH	Affordable / Workforce Housing (AWH)	± 46	± 500	-
C	Commercial Village (C)	± 36	-	± 340,000 sf
	Golf Course (GC)	± 218	-	-
Club House	Golf Course Club House	± 4	-	-
	Highway Buffer	± 234	-	-
	Parks / Open Space	± 37	-	-
	Major Roadways	± 40	-	-
	Total :	**± 1,060 ***	**± 2,462**	**± 420,000 sf**

* Note: The Village of 'Āina Le'a project area includes the use of lands outside the Urban District for infrastructure and active and passive park uses, for a total project area of approximately 1,141 acres.

FIGURE 3
CONCEPTUAL MASTER PLAN
The Villages of 'Āina Le'a

DW AINA LE'A DEVELOPMENT, LLC — ISLAND OF HAWAII

NORTH — LINEAL SCALE (FEET) 400 0 400 800 1600

10/12/2010

PBR HAWAII & ASSOCIATES, INC.

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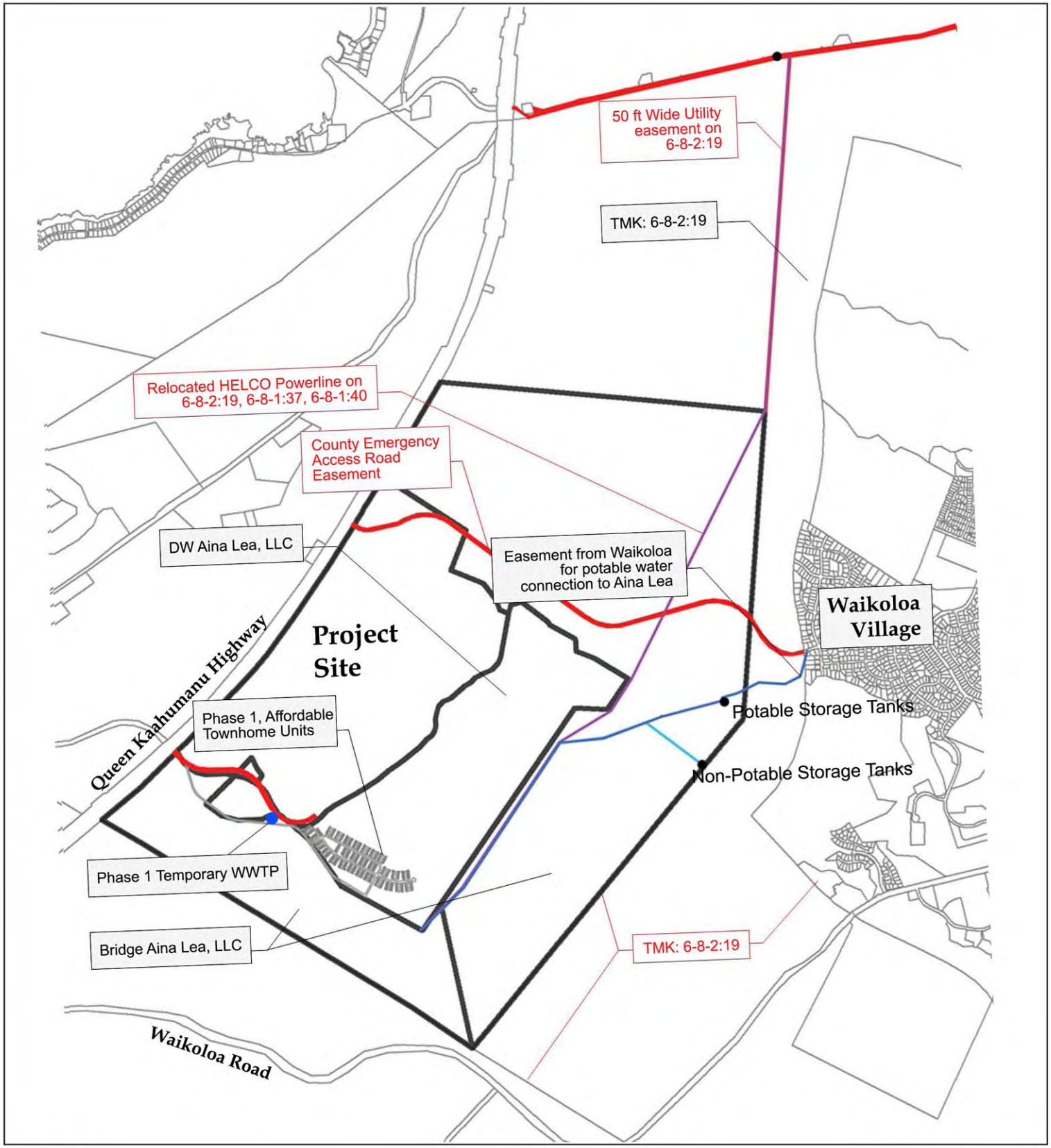

Legend

Hawai`i County TMK

FIGURE 4

Project Utility Connections

The Village of ʻĀina Leʻa

DW ʻAINA LEʻA DEVELOPMENT, LLC — ISLAND OF HAWAII

NORTH

LINEAR SCALE (FEET)

0 750 1,500 3,000 6,000

PBR HAWAII & ASSOCIATES, INC.

03/16/2010

Source: Hawaii County Tax Map Key 2009. Utility map prepared by SSFM International.

Disclaimer: This graphic has been prepared for general planning purposes only.

1.5 LANDOWNER

DW ʻĀina Leʻa Development, LLC and Relco Corp., (DW) are the owners of 1,092 acres of land in the State Land Use Urban and Agricultural Districts by an executed Amended and Restated Purchase and Sale Agreement ("Amended Agreement") with Bridge. The Amended Agreement
assigns rights, title, and interest in the Property through an installment sale. A redacted copy of the February 9, 2009 Amended Agreement is found in Appendix A.

The two main principals of Relco Corp. are Robert Wessels, President, and Steve Dunnington, Project Manager. Relco was incorporated in 1992 following 14 years of operating as a building partnership in Arizona and California.

There are also multiple investors involved in Parcel 36 of the Property. Each investor, who has a tenants-in-common ownership interest in this parcel, has signed a statement that they will not occupy the land and each has given full power of attorney to the Applicant and the builder to develop the property without any interference by or consultation with the tenants-in-common owners. The investors will receive a return on investment as the affordable town house units are sold, or will be paid at the end of a 30-month investment period if the sales are not made by then.

1.6 PURPOSE AND NEED FOR THIS EIS

The preparation of the EIS is being undertaken to address future requirements prompted by the Project District zoning under Chapter 343-5(a)(1), HRS, involving the use of State or County lands. While improvements to the State's Queen Kaʻahumanu Highway are required by Condition O of Ordinance No. 96-153 to mitigate traffic impacts generated by the original project, this EIS will cover these and any additional infrastructural improvements, including the planned construction of a WWTP on the adjacent property (Parcel 40), that may trigger Chapter 343, HRS compliance. No State or County funds will be used to develop the Project.

The preparation of this EIS will support the Project District zoning Application, requested amendments to Conditions of Ordinance No. 96-153, and all subsequent permits and applications, including but not limited to, special permit, subdivision, plan approval, grading, grubbing and infrastructural construction drawings for the approximately 1,141-acre Project area. This EIS is not intended to support any permits or approvals that may be required for the potential development of agricultural lots, golf courses and related infrastructure on the remaining Bridge lands that make up the balance of the original 3,000-acre property.

This EIS will also serve as the County Environmental Report to supplement the Project District Zoning Application pursuant to Chapter 25, HCC.

1.7 EIS ACCEPTING AUTHORITY

The accepting authority for the EIS is the County of Hawaiʻi Planning Department which can contacted at:

County of Hawaiʻi Planning Department
Bobby Jean Leithead-Todd, Planning Director
101 Pauahi Street, Suite 3
Hilo, Hawaiʻi 96720
Phone: (808) 961-8288 Fax (808) 961-8742

1.8 EIS PREPARER

The EIS preparer for the Project is James Leonard of J M Leonard Planning, LLC, whose contact information follows:

J M Leonard Planning, LLC
James M. Leonard
1100 Ainalako Road
Hilo, Hawaiʻi 96720
Email address: jmleonard@mac.com

1.9 STUDIES CONTRIBUTING TO THIS EIS

This EIS was developed with the information contained in technical studies, which have been appended in the document and are listed in the Table of Contents. The following environmental studies are included in the appendices of this EIS:

- Air Quality Study
- Archaeological Inventory and Data Recovery Surveys
- Archaeological Burial Treatment Plan
- Avifauna and Feral Mammals Survey
- Botanical Survey Report / Preservation and Mitigation Plan
- Cultural Impact Assessment
- Master Drainage Report
- Noise Quality Study
- Preliminary Engineering Study
- Socio-Economic Analysis Survey
- Traffic Impact Analysis Report
- Water Resources Assessment

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2 DESCRIPTION OF THE PROJECT

2.1 BACKGROUND INFORMATION

2.1.1 Location and Physical Setting

The Villages is located on six (6) parcels of land totaling approximately 1,141 acres in South Kohala, Waikoloa, Island of Hawaiʻi, TMK Nos. (3) 6-8-001: 25, 36, 38, 39, and portions of 37 and 40 (see Figures 1 and 2).

Table 1 below lists the acreage associated with each Project parcel, the SLU district classification, and the requested or permitted land uses.

Table 1
Parcels, Acreage, SLU, and Land Use

TMK	ACREAGE	SLU	PROJECT RELATIVE TO LAND USE REQUESTS
6-8-001:25	±27.016	Urban	County Project District zoning Requested
6-8-001:36	±61.387	Urban	Affordable Housing Under Construction (County Project District zoning Requested)
6-8-001:38	+628.316	Urban/Ag	County Project District zoning Requested/ Golf Course (portion)-Permitted (UP 90)
6-8-001:39	+383.033	Urban/Ag	County Project District zoning Requested/ Golf Course (portion), Passive Park, Preserve-Permitted
PROJECT SUBTOTAL	+1,099.752		"Applicant Property"
6-8-001:37(por)	±15.000	Ag	Golf Course (portions). Permitted (UP 90)
6-8-001:40 (por)	±10.000	Ag	WWTP-County Special Permit Required
6-8-001:40 (por)	+16.000	Ag	Active Park-Permitted Use
PROJECT SUBTOTAL	+41.000	Ag	By Amended Agreement w/Bridge ʻĀina Leʻa
PROJECT TOTAL	+1140.752	Urban/Ag	Also referred to as "Project" or "The Villages"

The Property is located mauka, or east, of the Queen Kaʻahumanu Highway, generally between the entrance to Mauna Lani Resort and moving north towards the entrance to Puakō in the land division of Waikoloa and district of South Kohala. It is bounded by the Queen Kaʻahumanu Highway to the west or makai direction, and by privately owned lands to the north, east, and south. The Property's frontage along the Queen Kaʻahumanu Highway is nearly two miles in length.

The Property rises gently to moderately from east to west at about a 7 percent slope. Elevations range from 150 feet above mean sea level (msl) at the western boundary adjacent to the Queen

Kaʻahumanu Highway and 700 feet at the eastern boundary of the Property. The Property is located approximately 9,000 feet mauka of the shoreline and is not a coastal property. The Property is generally an open expanse of ʻaʻa and pāhoehoe lava flows with limited vegetation. Construction of the affordable housing units has begun on approximately 61 acres (TMK: 6-8-001:36) as permitted under the existing zoning and subdivision approvals.

2.1.2 Previous Master Plans for 3,000 Acres Known as The Villages of ʻĀina Leʻa

The overall master plan for The Villages encompassed 3,000 acres of land, of which approximately 1,060 acres was classified in the State Land Use Urban District.

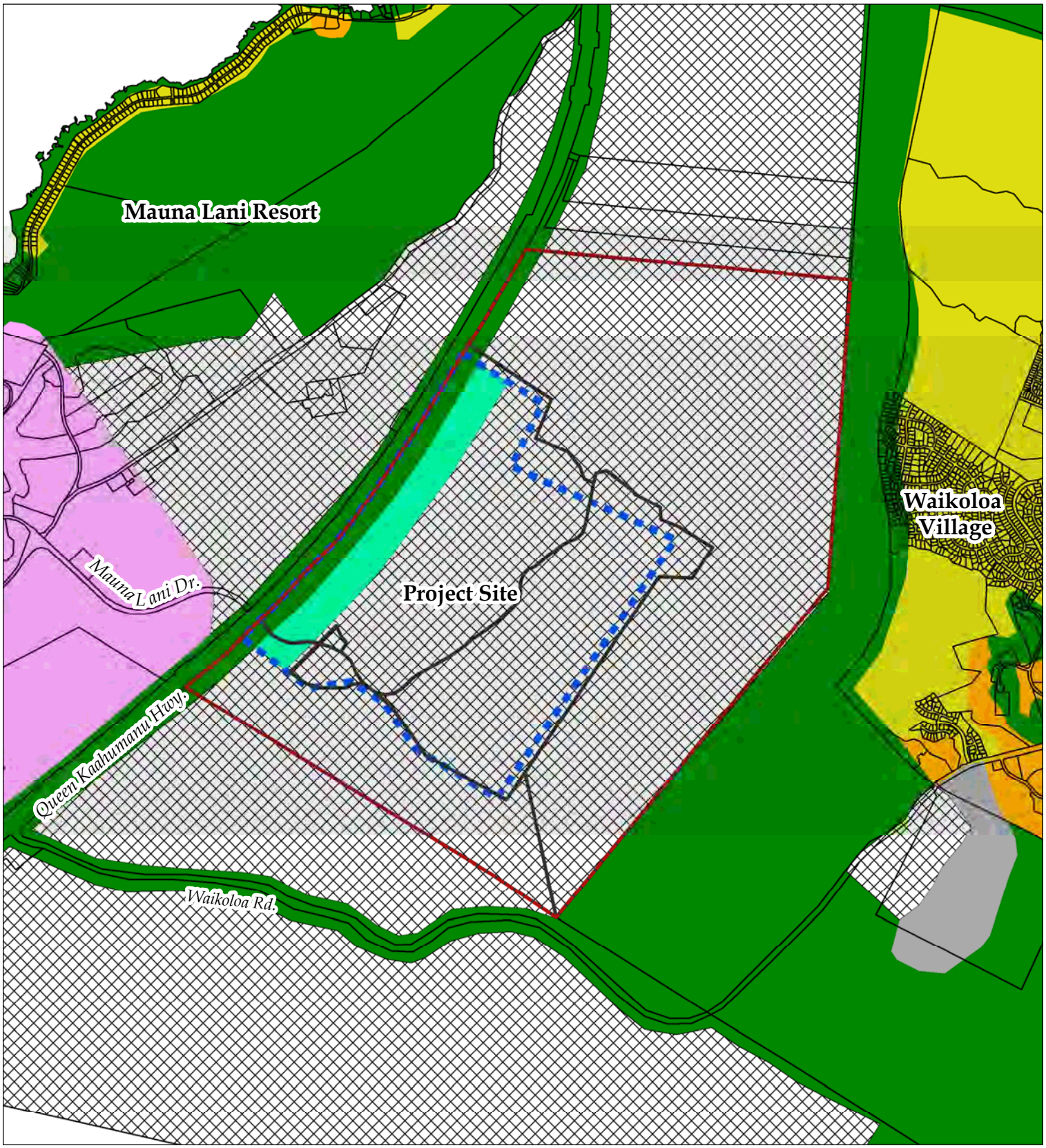
The original master plan in the early 1990s proposed the development of six golf villages that would include six 18-hole golf courses and associated recreational amenities, a golf academy, a total of 3,220 multiple-family residential and agricultural lots/units, and commercial uses.

In 1999, Bridge Puakō, LLC requested rezoning of the 1,060-acre Urban area to a Project District zone, but the application was later withdrawn. In 2007, successor landowner Bridge ʻĀina Leʻa submitted a Project District rezoning application that was returned to Bridge for compliance with Chapter 343, HRS.

Table 2 contains a summary of the current land-use designations for the property.

Table 2
Summary of Existing Land-Use Designations of the Property

Type	Designation
General Plan LUPAG Map Designations (see Figure 5)	Urban Expansion Area and Conservation (Highway Buffer)
State Land Use (SLU) (see Figure 6)	Urban (1,060 acres)/Agricultural (±68 acres)
South Kohala Community Development Plan (CDP) (see Figure 7)	Planned Development: 3,000 acres; 3,000+ units; 5 golf courses; golf academy; commercial villages; 40-unit lodge
County Zoning (see Figure 8)	Multiple-Family Residential (RM-4) Multiple-Family Residential (RM-7) Multiple-Family Residential (RM-14.5) Village Commercial (CV-10) Residential-Agricultural (RA-1a) Agricultural (A-5a)
Special Designations	
Special Management Area: No	
Shoreline Setback Area: No	



Legend

- Property Boundary
- Hawaii County TMK 2009
- Urban District Boundary
- Conservation
- Resort Node
- Urban Expansion
- Industrial
- Low Density Urban
- Medium Density Urban
- Open Area

Source: Hawaii County GIS Data

Disclaimer: This graphic has been prepared for general planning purposes only.

FIGURE 5

Hawaii County General Plan

The Villages of ʻĀina Leʻa

DW ʻĀINA LEʻA DEVELOPMENT, LLC

ISLAND OF HAWAII

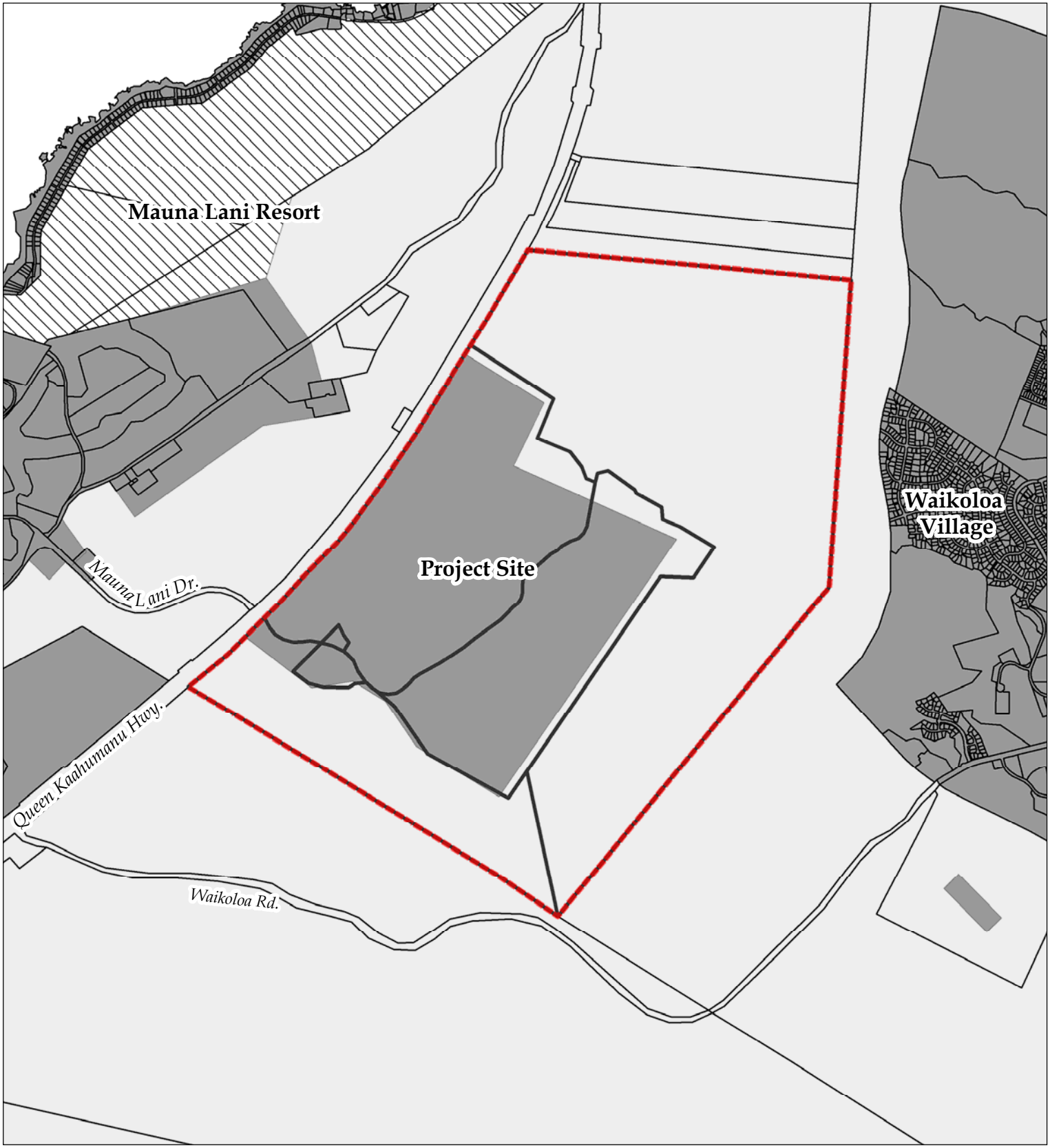
NORTH

LINEAR SCALE (FEET)

0 750 1,500 3,000 6,000

PBR HAWAII & ASSOCIATES, INC.

05/03/2010



Legend

- Property Boundary
- Hawaii County TMK 2009

State Land Use Districts

- Agriculture
- Conservation
- Rural
- Urban

FIGURE 6

State Land Use Classification

The Villages of ʻĀina Leʻa

DW ʻĀINA LEʻA DEVELOPMENT, LLC

ISLAND OF HAWAII

NORTH

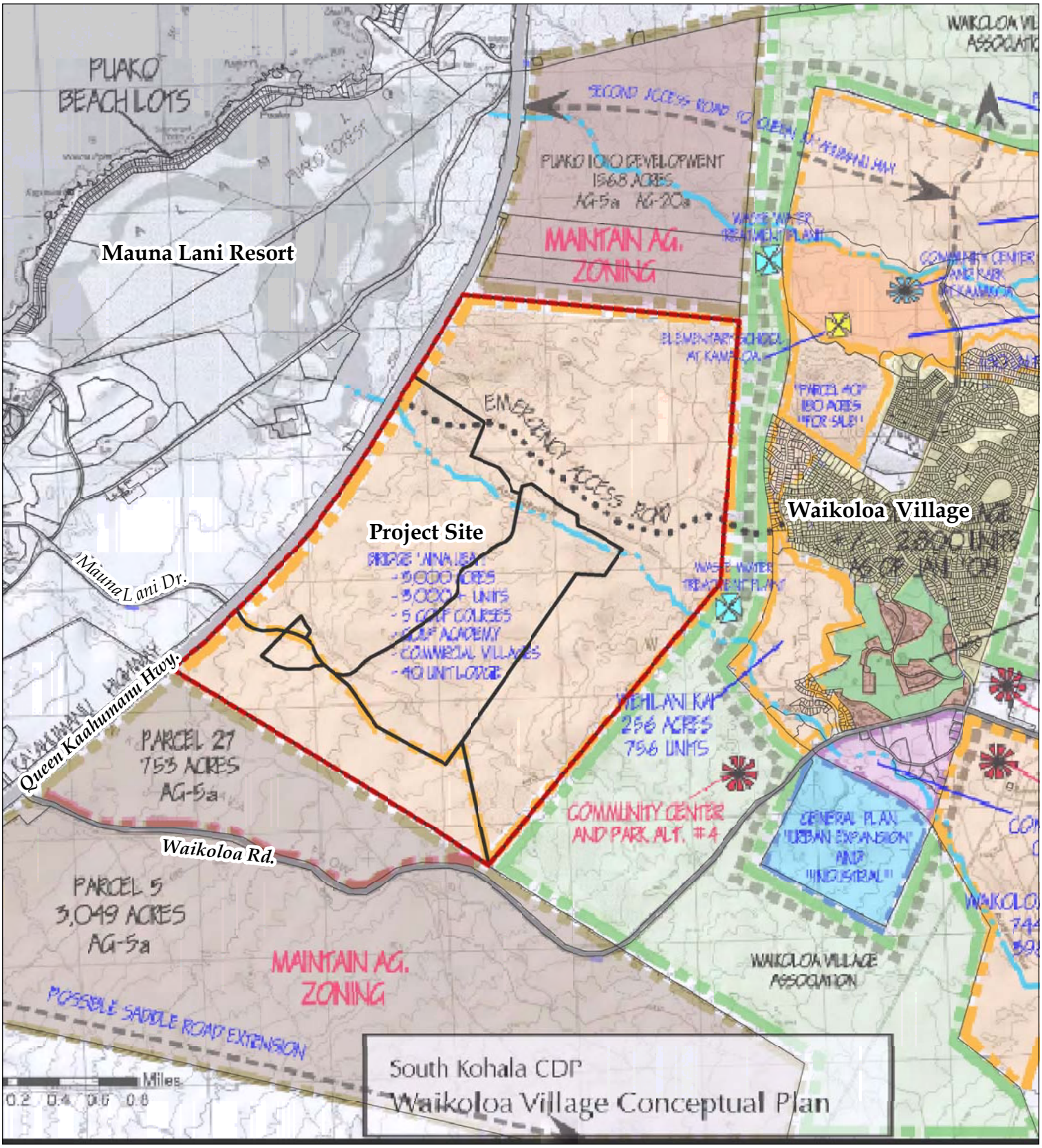
LINEAR SCALE (FEET)

0 750 1,500 3,000 6,000

PBR HAWAII & ASSOCIATES, INC.

05/03/2010

Source: Hawaii County GIS Data Disclaimer: This graphic has been prepared for general planning purposes only.



Legend

- Property Boundary
- Hawai`i County TMK 2009

FIGURE 7

South Kohala Community Development Plan

The Villages of ‘Āina Le‘a

DW ‘ĀINA LE‘A DEVELOPMENT, LLC — ISLAND OF HAWAII

NORTH

LINEAR SCALE (FEET)

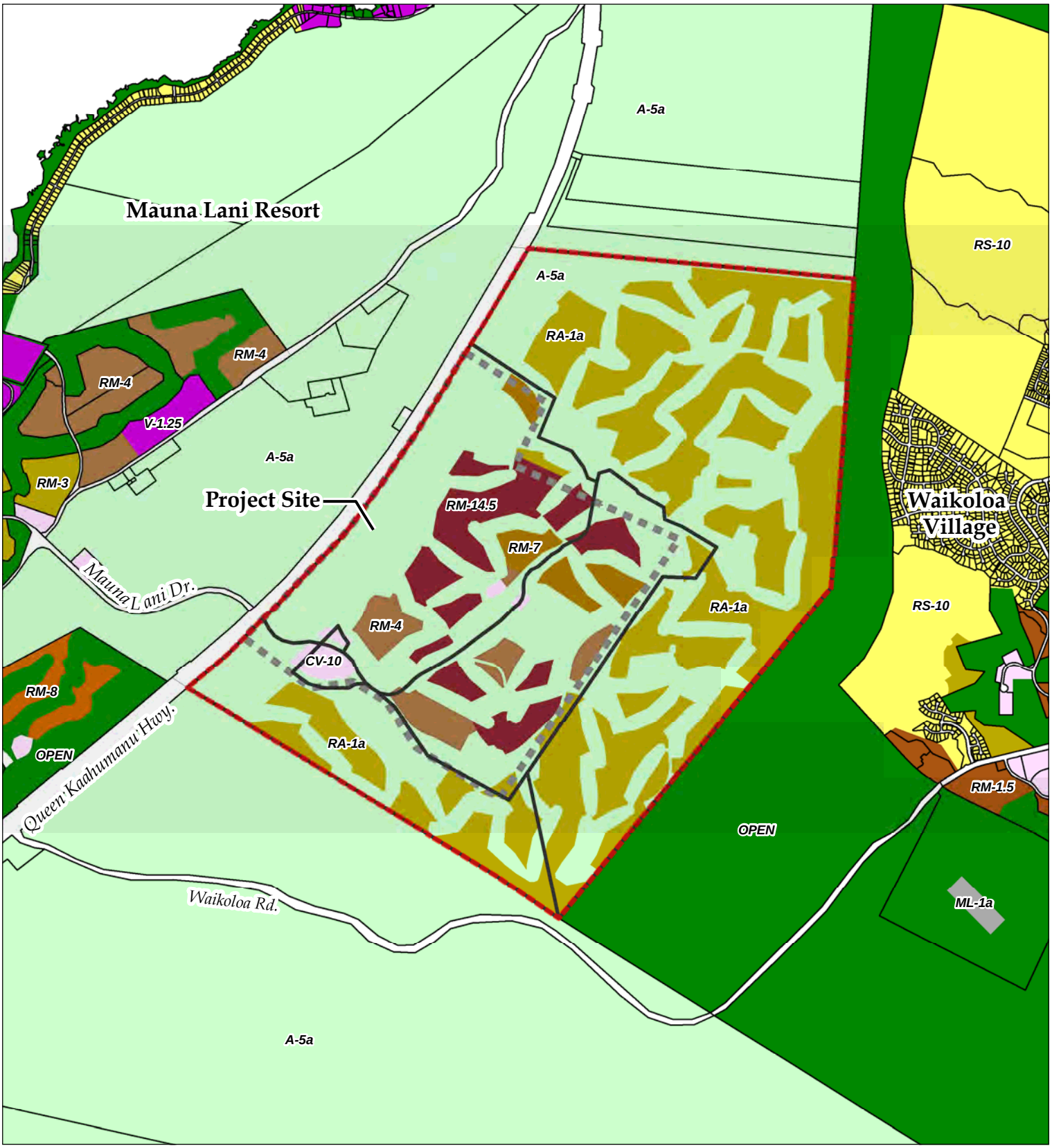
0 875 1,750 3,500 7,000

PBR HAWAII & ASSOCIATES, INC.

05/03/2010

Source: Hawai`i County 2009 Tax Map Key (GIS), South Kohala Community Development Plan 2008

Disclaimer: This graphic has been prepared for general planning purposes only.



Legend

- Property Boundary
- Urban District Boundary
- Hawai`i County TMK 2009

(road)	ML-1a	RM-1.5	RM-7
A-5a	OPEN	RM-14.5	RM-8
CV-10	RA-1a	RM-3	RS-10
CV-15	RD-3.75	RM-4	V-1.25

FIGURE 8

Hawai`i County Zoning

The Villages of ‘Āina Le‘a

DW ‘ĀINA LE‘A DEVELOPMENT, LLC

ISLAND OF HAWAII

NORTH

LINEAR SCALE (FEET)

0 750 1,500 3,000 6,000

PBR HAWAII & ASSOCIATES, INC.

05/03/2010

Source: Hawaii County GIS Data

Disclaimer: This graphic has been prepared for general planning purposes only.

2.1.3 Land-Use Approvals and Government Actions

The major entitlements for the original project were secured in the latter part of the 1980s and early 1990s. Numerous government actions have been requested and secured towards implementing that project. Table 3 outlines the major government approvals for the Project and the original Villages obtained to date.

Table 3
Existing Land-Use Approvals and Other Government Actions for the Project and The Villages

EFFECTIVE DATE	LAND USE/OTHER REQUEST	ACREAGE	ACTION
1-17-1989	State Land Use Boundary Amendment from Agricultural to Urban	1,060 acres (Project area)	Decision & Order Docket No. A87-617 Note: On 4-30-2009, LUC voted by oral motion to revert Urban District area to original Agriculture classification. On 6-5-2009, LUC voted to stay or hold the reversion of the Urban classification to Agriculture. On 8-27-2009, LUC voted to rescind motion to revert Urban District area to Agriculture classification.
7-9-1991	Amended 1-17-1989 Decision & Order	1,060 acres (Project area)	Approved name change, modification of conditions
12-11-1991	Use Permit Application for six golf courses & related improvements	3,000 acres (Villages)	Approved UP No. 90
1993	County Rezoning from Unplanned to RA-1a, RM-4.0, RM-7, RM-14.5, CV-10	3,000 acres (Villages)	Approved Ord. No. 93-1
12-5-1996	Amendments to Conditions of Ordinance No. 93-1	N/A	Approved Ord. No. 96-153
9-19-1996	Amendments to Conditions of Use Permit No. 90	N/A	Approved
11-2000	Non-significant Zoning Amendments		Approved
11-25-2005	Amendment to SLUC Conditions 1 (affordable housing) & 8 (community benefit assessment)		Approved amendment to Condition 1 & denied amendment to Condition 8
2006	Resolution of Intention to Establish Community Facilities District (CFD)	1,060 acres	Approved Council Resolution 486-06
12-28-2006	CFD No. 1 Report filed by Department of Public Works to County Council	1,060 acres	County Council acceptance of filed report.

2.2 PURPOSE AND NEED FOR REQUESTED PROJECT DISTRICT ZONING

As a result of numerous meetings with the Waikoloa community over the years and the refinement of the overall master plan to address community, environmental, and siting concerns, it was determined that the existing zoning should be amended to accommodate the revised conceptual master plan. Thus, the Applicant is requesting that its zoning be amended to the County's Project District zoning in the Urban area, which would provide greater flexibility for site planning, infrastructure, and changing marketing considerations. The major modifications include a future east-west (mauka-makai) connector road to facilitate regional traffic circulation. There has also been a conceptual adjustment to including single-family residences in the project; to the siting of the single- and multi-family residential, and commercial development areas; and removing one proposed golf course.

These modifications necessitate a request for Project District zoning in the SLU Urban area and amendments to the existing zoning Ordinance No. 96-153. It is important to note that development could still be achieved under the existing CV, RM, RA, and A zoning designations though the result would be less desirable.

2.3 PROJECT DESCRIPTION

2.3.1 Statement of The Villages and Project District Zoning Objectives

The objectives of The Villages and Project District zoning are to:

- Implement the Project as an integral and contributing part of the Puakō and Waikoloa communities.
- Provide recreational amenities (tennis, a golf course, park and bicycle paths), self-contained commercial facilities, and adequate infrastructure to service the community.
- Design and implement the Project in a manner that is sensitive to the environmental, scenic, and cultural resources of the area.
- Plan to provide regional connectivity of roads and other crucial infrastructure systems.
- Be responsive to the ever-changing market demands of the global and local communities.

2.3.2 Project Description and Relationship to Proposed Project District Zoning

The Villages would be developed as an integrated golf residential community focused around an 18-hole golf course and golf academy with a village center at the "heart" of the development. The Conceptual Master Plan illustrated in Figure 3 provides a visual depiction of the proposed Project consistent with the above-described objectives.

Table 4a outlines the proposed uses, corresponding acreages and unit count in the requested Project District zoned area. Table 4b lists the proposed uses, approximate acreage, and permitting status of that portion of the Project in the SLU Agricultural District. A description of The Villages' components follows.

Table 4a
Proposed Uses in Requested Project District Zoned Area

Proposed Uses	Proposed Approximate Units/Lots	Proposed Approximate Acreage	Approximate Gross Floor Area
Single Family Residential (RS)	790 lots	255	
Multiple Family Residential (RM)	1,047 units	165	
Mixed Use	125 units	25	80,000 sq. ft.
Affordable/Workforce Housing	up to 500 units	46	
Commercial Village		36	340,000 sq. ft.
Golf Course/Driving Range		218	
Golf Clubhouse		4	
Parks/Open Space		37	
Highway Buffer		234	
Major Roadways		40	
TOTAL	**2,462 units/lots**	**1,060**	**420,000 sq. ft.**

Table 4b
Proposed Uses in SLU Agricultural District

Proposed Uses	Approximate Acreage	Comment
Active Park	16	Required by Ord 96-153, permitted
Passive Park	16	Required by Ord 96-153, permitted
Wastewater Treatment Plant	10	Requires LUC Condition Amendment and Special Permit
Portions of Golf Course	32	Permitted, Use Permit No. 90
Public School Site	16*	Requires LUC Condition Amendment and Special Permit or Boundary Amendment, unless located on 16 acres within the Urban lands

* Potential DOE school site, if located in the Agricultural District, would be planned adjacent to the planned 16-acre Active Park, pending a joint-use agreement with the County, for a total use area for the school of 32 acres.

2.3.3 Affordable Housing Units

The Applicant is constructing up to 500 affordable housing units as part of the proposed development. Since up to 1,962 market residential units are planned, potentially 392 affordable units would be required under the County's current 20 percent affordable housing policy.

Construction of the affordable townhouse units began in 2010. Two eight-unit buildings received final building inspection in March of 2010. Five additional eight-unit buildings are under construction with additional buildings scheduled to start construction. Since the wastewater treatment plant and Queen Kaʻahumanu intersection plans cannot be approved until acceptance of the Final EIS, and given the desirability of allowing more time for the marketing of affordable townhouse units to eligible families, the Applicant has requested an amendment of the Land Use Commission condition pertaining to affordable housing to allow additional time to provide the planned affordable housing units. The request, which is currently pending with the LUC, would allow for completion of the first increment of 190 units by the end of 2011 and 195 units by the end of 2012. Sales of affordable townhouse units will be conducted in accordance with the requirements of the County Office of Housing and Community Development.

The Applicant has contracted with private water purveyor, Hawaiʻi Water Service Company, to purchase up to 200,000 gallons of potable, domestic water per day at Public Utility Company (PUC) rates for a five-year period. The water would be supplied through a connection at the end of Hulu Street, and may become a permanent source for up to 432 townhouse units pending PUC approvals. In a separate agreement with West Hawaiʻi Sewer Company, the Applicant would install equipment at the Waikoloa Sewer Plant A that will upgrade the R-2 water to R-1 in exchange for approximately 200,000-250,000 gallons of recycled water per day. The recycled water will be used to irrigate landscaping along roadways and at the affordable housing project. An access road from Queen Kaʻahumanu Highway will be constructed to the affordable housing meeting with the requirements of the Departments of Public Works and Transportation.

Discussions are also underway with the International Longshore and Warehouse Union (ILWU), the largest private-sector union in Hawaiʻi, and/or another non-profit entity to provide workforce housing within The Villages.

2.3.4 Residential Golf Community

Following completion of the affordable townhouse units, the Applicant will focus on phasing the development of market residential pads for approximately 790 single-family home sites and 1,047 multi-family units. The residential uses will offer a mixture of lots, homes, apartments, townhouses, condominiums and other unit types. The single-family dwellings are planned to be custom-built by different developers and/or individual lot owners, subject to design covenants.

The multi-family units will be constructed over time by the Applicant and/or its successors or assigns.

All lots and units constructed within the proposed Project District zoned area will be consistent with the standards contained in the Zoning Code summarized in Table 5 for single- and multiple-family structures and/or lots. These standards relate to lot size, setbacks, and heights. None of the single-family residential lots would be smaller than the allowable 7,500 square feet; however, the Applicant will apply for a Cluster Plan Development or Planned Unit Development permit in the event smaller lots are deemed appropriate and/or desired.

Permitted uses in the single-family and multiple-family residential zoned districts are provided in Table 6.

The residential density will be capped at 2,462 units/lots in the Project District zoned area, which includes affordable/workforce housing. This results in a residential density of about 2.32 units per acre over the proposed Project District zoned area.

As required by the County's Zoning Code, a more detailed master plan will be submitted to the Planning Department for review and approval before specific development permits can be secured.

2.3.5 Golf Course, Clubhouse, Golf Academy, Golf Lodge and Related Facilities

The focal point of The Villages is an 18-hole golf course, a golf academy, driving range, and clubhouse with pro shop, restaurant, tennis courts and a swimming pool. To minimize disturbing the existing terrain, the golf course will be sculpted to take advantage of the natural environment. Natural features such as lava outcroppings and drainage ways are to be incorporated into the golf course. A major portion of the golf course is planned in the Project District Urban area with small portions in the SLU Agricultural District. While the golf course is currently approved under County Use Permit No. 90, which includes a deadline for construction of the course by the end of 2011, the golf course will be included as a permitted use of the Project District approval being sought from the County, thereby bringing timetable for construction of the course in line with the Project construction timetable. Additionally, approval of an extension of time to the conditions of County Use Permit No. 90 would be required should the golf development extend beyond the proposed Project District boundaries into the area of the State Agricultural District, as indicated in the Conceptual Master Plan.

A golf lodge with up to 40 units is planned in close proximity to the golf course and clubhouse. The golf lodge will complement the activities of the golf course and a golf academy by housing guests, players, and academy students and professionals. Depending upon the final golf course layout, the lodge may need to be moved to the mixed-use center.

2.3.6 Commercial Village and Mixed-Use Center

A 36-acre commercial village comprised of approximately 340,000 square feet of gross floor area will be located near the entrance to The Villages. The commercial center will provide retail and shopping opportunities for residents of the community, visitors, and residents in the surrounding region. It would be setback approximately 500 feet from the highway. The commercial village will be developed incrementally in response to market demand. Nevertheless, a detailed land-use master plan would be submitted to the Planning Department in accordance with the requirements of the Zoning Code prior to the specific development of any portion of this area so that access, landscaping, and related issues can be specifically addressed. Tentative commercial uses could include restaurants, market, bank, department store, retail shops, medical facilities, and drug store. Office uses to support the on-site retail facilities, residents, and surrounding resort population are likely to be established.

Permitted uses in the Village Commercial zone district are provided in Table 5.

Table 5
Permitted Uses in the RS, RM, and CV Districts

Permitted Uses in RS District
Section 25-5-3

(a) The following uses shall be permitted in the RS district:
  (1) Adult day care homes.
  (2) Cemeteries and mausoleums, as permitted under chapter 6, article 1 of this Code.
  (3) Community buildings, as permitted under section 25-4-11.
  (4) Crop production.
  (5) Dwellings, single-family.
  (6) Family child care homes.
  (7) Group living facilities.
  (8) Home occupations, as permitted under section 25-4-13.
  (9) Meeting facilities.
  (10) Model homes, as permitted under section 25-4-8.
  (11) Neighborhood parks, playgrounds, tennis courts, swimming pools, and similar neighborhood recreational areas and uses.
  (12) Public uses and structures, as permitted under section 25-4-11.
  (13) Temporary real estate offices, as permitted under section 25-4-8.
  (14) Utility substations, as permitted under section 25-4-11.

(b) In addition to those uses permitted under subsection (a) above, the following uses may be permitted in the RS district, provided that a use permit is issued for each use:
  (1) Bed and breakfast establishments as permitted under section 25-4-7.
  (2) Care homes.
  (3) Churches, temples and synagogues.
  (4) Crematoriums.
  (5) Day care centers.
  (6) Golf courses and related golf course uses, including golf driving ranges, golf maintenance buildings and golf club houses.
  (7) Hospitals, sanitariums, old age, convalescent, nursing and rest homes.
  (8) Major outdoor amusement and recreation facilities.
  (9) Mortuaries.
  (10) Schools.
  (11) Telecommunication antennas and towers.
  (12) Yacht harbors and boating facilities.

(c) Buildings and uses normally considered directly accessory to the uses permitted in this section shall also be permitted in the RS district.

Permitted Uses in the RM District
Section 25-5-32

(a) The following uses shall be permitted in the RM district:
- (1) Adult day care homes.
- (2) Bed and breakfast establishments, as permitted under section 25-4-7.
- (3) Boarding facilities, rooming, or lodging houses.
- (4) Cemeteries and mausoleums, as permitted under chapter 6, article 1 of this Code.
- (5) Commercial or personal service uses, on a small scale, as approved by the director, provided that the total gross floor area does not exceed one thousand two hundred square feet and a maximum of five employees.
- (6) Community buildings, as permitted under section 25-4-11.
- (7) Crop production.
- (8) Dwellings, double-family or duplex.
- (9) Dwellings, multiple-family.
- (10) Dwellings, single-family.
- (11) Family child care homes.
- (12) Group living facilities.
- (13) Home occupations, as permitted under section 25-4-13.
- (14) Meeting facilities.
- (15) Model homes, as permitted under section 25-4-8.
- (16) Neighborhood parks, playgrounds, tennis courts, swimming pools, and similar neighborhood recreational areas and uses.
- (17) Public uses and structures, as permitted under section 25-4-11.
- (18) Temporary real estate offices, as permitted under section 25-4-8.
- (19) Time share units situated in any of the following:
  - (A) Areas designated as resort under the general plan land use pattern allocation guide (LUPAG) map.
  - (B) Areas determined by the director to be within resort areas identified by the general plan land-use element, except for retreat resort areas.
  - (C) Areas determined for such use by the council, by resolution.
- (20) Utility substations, as permitted under section 25-4-11.

(b) In addition to those uses permitted under subsection (a) above, the following uses may be permitted in the RM district, provided that a use permit is issued for each use:
- (1) Care homes.
- (2) Churches, temples and synagogues.
- (3) Crematoriums.
- (4) Day care centers.
- (5) Golf courses and related golf course uses, including golf driving ranges, golf maintenance buildings and golf club houses.
- (6) Hospitals, sanitariums, old age, convalescent, nursing and rest homes.
- (7) Major outdoor amusement and recreation facilities.
- (8) Mortuaries.
- (9) Schools.
- (10) Telecommunication antennas and towers.
- (11) Yacht harbors and boating facilities.

(c) Buildings and uses normally considered directly accessory to the uses permitted in this section shall also be permitted in the RM district.

Permitted Uses in CV District
Section 25-5-122

(a) The following uses shall be permitted in the CV district:
- (1) Adult day care homes.
- (2) Amusement and recreation facilities, indoor.
- (3) Art galleries, museums.
- (4) Automobile sales and rentals.
- (5) Automobile service stations.
- (6) Bars.
- (7) Bed and breakfast establishments, as permitted under section 25-4-7.
- (8) Boarding facilities, rooming, or lodging houses, provided that the maximum density shall be one thousand two hundred fifty square feet of land area per rentable unit or dwelling unit.
- (9) Business services.
- (10) Cemeteries and mausoleums, as permitted under chapter 6, article 1 of this Code.
- (11) Churches, temples and synagogues.
- (12) Commercial parking lots and garages.
- (13) Community buildings, as permitted under section 25-4-11.
- (14) Convenience stores.
- (15) Crop production.
- (16) Day care centers.
- (17) Dwellings, double-family or duplex, provided that the maximum density shall be one thousand two hundred fifty square feet of land area per rentable unit or dwelling unit.
- (18) Dwellings, multiple-family, provided that the maximum density shall be one thousand two hundred fifty square feet of land area per rentable unit or dwelling unit.
- (19) Dwellings, single-family.
- (20) Family child care homes.
- (21) Farmers markets. When the vending activity in a farmers market involves more than just the sale of local fresh and/or raw produce, plant life, fish and local homegrown and homemade products for more than two days a week, the director, at the time of plan approval, shall restrict the hours of use, maintenance and operations and may require improvements as determined appropriate to ensure its compatibility with the existing character of the surrounding area.
- (22) Financial institutions.
- (23) Group living facilities.
- (24) Home occupations, as permitted under section 25-4-13.
- (25) Hospitals, sanitariums, old age, convalescent, nursing and rest homes and other similar uses.
- (26) Hotels, when the design and use conform to the character of the area, as approved by the director.
- (27) Laboratories, medical and research.
- (28) Lodges.
- (29) Manufacturing, processing and packaging light and general, except for concrete or asphalt products, where the products are distributed to retail establishments located in the immediate community, as approved by the director.

(30) Medical clinics.
(31) Meeting facilities.
(32) Model homes, as permitted under section 25-4-8.
(33) Mortuaries.
(34) Neighborhood parks, playgrounds, tennis courts, swimming pools, and similar neighborhood recreational areas and uses.
(35) Offices.
(36) Personal services.
(37) Photography studios.
(38) Public uses and structures, as permitted under section 25-4-11.
(39) Publishing plants for newspapers, books and magazines, printing shops, cartographing, and duplicating processes such as blueprinting or photostating shops, which are designed to primarily serve the local area.
(40) Repair establishments, major, when there are not more than five employees, as approved by the director.
(41) Repair establishments, minor.
(42) Restaurants.
(43) Retail establishments.
(44) Schools.
(45) Telecommunication antennas, as permitted under section 25-4-12.
(46) Temporary real estate offices, as permitted under section 25-4-8.
(47) Theaters.
(48) Utility substations, as permitted under section 25-4-11.

(b) In addition to those uses permitted under subsection (a) above, the following uses may be permitted in the CV district, provided that a use permit is issued for each use:
(1) Crematoriums.
(2) Golf courses and related golf course uses, including golf driving ranges, golf maintenance buildings and golf club houses.
(3) Major outdoor amusement and recreation facilities.
(4) Yacht harbors and boating facilities.

(c) Residential uses in connection with the operation of any permitted uses shall be permitted in the CV district.

(d) Buildings and uses similar to the permitted uses listed in subsection (a) above shall be permitted in the CV district, as approved by the director.

(e) Buildings and uses normally considered accessory to the uses permitted in this section shall also be permitted in the CV district.

A mixed-use center of approximately 25 acres is planned in the central core of the Project District and would contain about 125 residential units and 80,000 square feet of gross floor area. This center will provide the flexibility of having nearby commercial/residential activities as needed by the community. The Applicant would like to retain the flexibility of transferring residential units from other residential areas to the mixed-use center as necessary.

<u>It should be noted that the proposed commercial use, as shown in the Conceptual Master Plan (Figure 3), extends into the area of the 1,200-foot Highway setback area established under Condition 3 of the State Land Use Commission approval for the Project. Also, as specified</u>

within Condition D of Ordinance 96-153, the zoning ordinance for the Project, any use within the 1,200-foot Highway setback area would require prior plan approval from the County Planning Director. As such, should the Applicant choose to locate a commercial area within the 1,200-foot setback from Queen Kaʻahumanu Highway, the Project would require an amendment to Condition 3 of the Decision and Order for Land Use Commission Docket A87- 617 as well as Plan Approval from the County Planning Director. Additionally, following confirmation with the State Land Use Commission on the boundary of the buffer area along Queen Kaʻahumanu Highway, the Applicant would record a conservation easement comprising the approximately 225 acres with the State Bureau of Conveyances, as required by Condition 3 of the LUC Decision and Order.

2.3.7 Project Open Space, Parks and Historic/Cultural Sites

Approximately 225 acres of open space will be set aside to provide a buffer along Queen Kaʻahumanu Highway.

A 10-acre active park was initially planned on the adjoining Parcel 40 over which the Applicant has management control pursuant to its Amended Agreement with Bridge, but the Applicant has offered to expand that park to 16 acres. The active park will be developed in the first phase.

A 16-acre natural park for passive uses and 5-acre red ʻilima preserve will be set aside in the later phase of the development as required by Ordinance No. 96-153. The Applicant will work with a botanist to resurvey the plot to determine the existence of the red ʻilima and to develop an interpretation and public education program, as appropriate. The park and preserve are anticipated to be available when the adjacent phasing is developed. The active and passive parks will be maintained in private ownership unless and until the County desires to take them over.

Archaeological Site 22514 will be preserved when its interface with the golf course is known in accordance with approvals from the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD).

2.3.8 Project Access, Circulation and Roads

There are two approved permitted access points along the Queen Kaʻahumanu Highway. These accesses have temporary access pads on the highway. The northern temporary access serves as the egress for the County's Waikoloa Village Emergency Evacuation Access Road, which extends by way of an easement for 2.13 miles from the highway to the end of Hulu Street in Waikoloa Village. The Waikoloa Village Emergency Evacuation Access Road provides more than 5,000 Waikoloa residents with an alternative exit in case of fire, flooding or other disasters. Currently, the public transit serving the area of Waikoloa Village is a single bus route provided by the Hawaiʻi County Mass Transit Agency between The Villages and Kailua-Kona with a single morning pick-up and afternoon-drop off at the Waikoloa Post Office. The primary Project roads will be planned to accommodate bus use, which could include pick-up and drop-off locations and park-and-ride facilities, should this service be extended to the Project. The Applicant is also committed to working the County transit officials to include the Project as a

potential bus stop for those commuting to Kailua-Kona, when justified by a sufficient number of residents within the development.

Access to the Project will be phased from Queen Kaʻahumanu Highway via the two permitted points. Phasing would occur with actual development. The initial access will be at the Project intersection with Mauna Lani Resort, which will be fully channelized and signaled. These improvements will be installed and operational at the completion of Phase I development.

A connector road beginning at the northern access point on Queen Kaʻahumanu Highway traversing a portion of the Property extending to Waikoloa Village's Hulu Street is shown on the Conceptual Master Plan. The specific location and alignment of this road is still under discussion with the County and community representatives. The connector road is planned to be constructed in conjunction with the Phase 1 development and the planned Community Facilities District (CFD) bond funding.

All other interior roads would be constructed to meet with the requirements of the County Department of Public Works (DPW). Since some of the roads will be private, the Applicant may consider modification of the road standards in an effort to create a neighborhood ambiance.

2.3.9 Project Water

2.3.9.1 Domestic Water

The County of Hawaiʻi's public domestic water system does not serve the Project site. For the approximately 432 townhouse units planned as part of the Phase I development, the privately owned Hawaiʻi Water Service Company, Inc. (HWSC) is willing to provide temporary potable water service (up to 200,000 gallons of domestic water per day) under an agreement to be approved by the Public Utilities Commission. The Applicant will construct the water system and its connection at Hulu Street at its own expense.

To meet the potable water system requirements for the Project, by Agreement with the County Board of Water Supply (see Appendix C), the Applicant will develop and construct up to four wells in the ʻOuli Well Field along with related transmission and storage improvements in the ʻOuli corridor to the south and parallel to the Waimea-Kawaihae Road. As described in *Assessment of the Potential Impact on Water Resources of the Development of the ʻĀina Leʻa Village Project* (see Appendix F), domestic water from the ʻOuli wells would be added into the Lalamilo component of DWS' existing South Kohala system. By terms of the Agreement, one of these wells will be considered standby and 20 percent of the capacity of the three remaining wells would be reserved for DWS. The maximum day supply available to the Applicant is estimated to be between 2.4 to 2.9 mgd. This is equivalent to an average day supply of 1.61 to 1.96 mgd by DWS' design standards, sufficient to meet the projected average daily use of approximately 1.32 mgd.

It is likely that a time extension to the Water Supply Agreement will be requested along with other construction-related revisions.

The addition of the ʻOuli wells and system improvements will provide much-needed backup and redundancy to the existing DWS water system serving Mauna Lani, Mauna Kea, Kawaihae and Puakō. A detailed discussion of the potable water system for the project is found in Section 4.11.1.

2.3.9.2 Irrigation Water

The Project golf course and road landscaping will be irrigated with a blend of brackish water from onsite wells and reclaimed, recycled wastewater that will be distributed by way of separate irrigation transmission system. The recycled wastewater (up to 250,000 gallons of discharge water) will be provided by Agreement with the West Hawaiʻi Sewer Company (WHSC). The Applicant intends to upgrade the WHSC ʻAuwaiakeakua Waste Water Treatment Plant (WWTP) to begin treating the R-2 quality water for R-1 quality output. The R-1 treatment will eliminate the need for cesspools at the ʻAuwaiakeakua WWTP. An estimated average use of 0.527 gpd non-potable water is calculated for the Project (see Appendix F, Table 3).

2.3.9.3 Wastewater Treatment Plant (WWTP)

The Applicant is planning to construct a private WWTP on approximately 10 acres of land on the adjacent Parcel 40 to the south over which the Applicant has control by Amended Agreement, as shown on the Conceptual Master Plan in Figure 3 (also shown as Phase 2 & 3 WWTP in Figure C-001, "Civil Phase Development Plan," Appendix D2). Initially, a "packaged" WWTP is planned in the area mauka of the planned commercial village and would be sized to serve the initial 385 affordable townhouse units (see "Phase 1 WWTP" in Figure C-001, Appendix D2). Design of this initial treatment facility can be compartmentalized so as to be potentially relocated and integrated as part of the permanent project WWTP. Both the temporary and permanent WWTPs would use a membrane bioreactor process to treat wastewater at an R-1 tertiary quality level to permit effluent reuse for golf course and landscape irrigation and future construction dust control. The combination membrane and biological process filters out suspended solids and pollutants, including nitrogen, phosphorous, and microorganisms such as viruses, bacteria and parasitic cysts. The WWTP would be designed for an average dry weather flow liquid capacity of about 2.0 mgd, and designed to handle a peak flow rate of 10.5 mg (see Appendix D). A detailed discussion about the WWTP is found in Section 4.11.2.

2.4 PROJECT AND PROJECT DISTRICT DEVELOPMENT STANDARDS

2.4.1 Project District Development Standards and Project Guidelines

Development of The Villages will be guided by a set of standards that will be made a part of the Project District zoning. For the most part, the standards are comparable to those required in the Zoning Code. These standards are outlined in Table 6.

Table 6
Project District Zoning Development Standards Summary Table

DESIGN PARAMETERS	SINGLE-FAMILY	MULTI-FAMILY	COMMERCIAL
Proposed Uses	Single-Family	Duplex and Multi-Family	Commercial Center or Mixed Use Node, Lodge, Club, Clubhouse, Golf Academy
Comparable Zoning	RS	RM	CV
Permitted Uses	Same as RS zoning district, except for golf course and related uses which are added as a permitted use.	Same as RM zoning district, except for golf course and related uses which are added as a permitted use.	Same as CV zoning district, except for golf course and related uses which are added as a permitted use.
Permitted With Use Permit	Same as RS zoning district, except for golf course and related uses, which are permitted uses, as noted above.	Same as RM zoning district, except for golf course and related uses, which are permitted uses, as noted above.	Same as CV zoning district, except for golf course and related uses, which are permitted uses, as noted above.
Height Limit	Same as RS zoning district (35 feet).	Same as RM zoning district (45 feet)	Same as CV zoning district (35 feet).
Minimum Building Site Area	7,500 square feet	7,500 square feet	7,500 square feet
Minimum Front and Rear Yards	Same as RS zoning district. For 7,500-9,999 sf lots: 15 feet For 10,000-19,999 sf lots: 20 feet For 20,000 sf or greater lots: 25 feet	Same as RM zoning district (20 feet).	Same as CV zoning district (15 feet)
Minimum Side Yards	Same as RS zoning district. For 7,500-9,999 sf lots: 8 feet for one story, 10' for two stories. For 10,000-19,999 sf lots: 10 feet for one story plus 1 additional foot for each additional story. For 20,000 or greater lots: 15 feet.	Same as RM zoning district. 8 feet for one story building, plus an additional 2 feet for each additional story.	Same as CV zoning district. None, except where adjoining building site is RS or RM & where side yard adjoins side yard of a building site in RS-or RM, there shall be a side yard conforming to side yard requirements for the adjoining use.
Other Regulations	a) More than one main building permitted. b) Distance between main buildings = 15 feet. c) Exceptions may be approved by director.	a) More than one main building permitted. b) Distance between main buildings = 15 feet. c) Plan approval required for new buildings & additions to existing buildings. d) Director may approve exceptions.	a) Landscape front yards. b) Plan approval required for new structures & additions to existing structures. c) Exceptions to the regulations may be approved by director.

In addition, the Project will be guided by the following sustainable planning and building design guidelines:

- Conduct site planning to preserve existing resources and natural features
- Promote a "walkable community" through efficient land use centered on a mixed-use village center
- Promote the use of LEED principles in the planning, design, construction, and operation of Project buildings
- Provide a bicycle and pedestrian paths along certain roads within the Project
- Employ natural cooling techniques in building design, orientation, and the use of landscaping
- Encourage the use of renewable energy devices such as solar water heaters and photovoltaics
- Incorporate water-efficient landscaping and landscape methods to minimize evaporation, reduce weed growth and retard erosion
- Irrigate roadside landscaping and the golf course with non-potable water or reclaimed water when feasible
- Use pervious paving instead of concrete or asphalt paving where permitted
- Use natural or grass swales to control water runoff

In addition, covenants, conditions, and restrictions (CC&R's) and design guidelines will be developed and used for this Project.

2.5 DEVELOPMENT TIMETABLE AND PRELIMINARY COSTS

2.5.1 Development Phasing and Timetable

Phase I of the Villages will include development of at least 385 affordable three- and four-bedroom townhouse units, single and multi-family residential, internal roads and infrastructure, a mauka-makai road, active park, and WWTP. Construction of the 385 affordable townhouse units was scheduled to be completed by November of 2010 with the remainder of single- and multi-family units completed by 2012. More recently, the Applicant has requested a modification to the LUC condition pertaining to the provision of affordable housing to allow for completion of 190 units in 2011 and 195 units in 2012. Sale of the affordable townhouse units would be conducted in accordance with the requirements of the County Office of Housing and Community Development.

Other phases and their components include:

Phase II:	Commercial, single- and multi-family residential and infrastructure
Phase III:	Mixed-use commercial and residential, golf course, single- and multi-family residential, and natural park
Phase IV:	Single- and multi-family residential, golf academy, lodge, and completion of infrastructure.

With the exception of Phase I, the development of various uses in each phase will be flexible depending on economic forces and market conditions. The development timetable for Phases II and beyond is estimated to be constructed in a phased manner, as shown in Figure 8A, based on open market conditions, and to be completed by the year 2020.

2.5.2 Preliminary Costs

The construction cost for The Villages over a 10-year build out schedule is estimated at $2.56 billion.

The establishment of a Community Facilities District (CFD), pursuant to Hawaiʻi County Council Resolution No. 486-06, will assist in the financing of prescribed special improvements in the Project by authorizing the levy of a special tax and the issuance of bonds secured by proceeds of the special tax. The special improvements include roads, including the mauka-makai road, water system, sewer system, solid waste facilities, electric and telephone systems, infrastructure design, park and recreational facilities, police and fire facilities, and other county/public infrastructure.

The Applicant has received initial approval from the Hawaiʻi County Council, in the form of a Resolution of Intent, to proceed with the creation of a Community Facilities District (CFD) and the issuance of CFD bonds in the face amount of up to $100 million, which is expected to occur in 2011. The bonds are expected to yield in excess of $85 million after reserves and offering costs. The proceeds from the bonds would be applied to infrastructure development and will be repaid over time from assessments made to the individual home or lot owners after purchase.

The Applicant is working with the County Finance Department and its underwriters to proceed with CFD process by advancing $75,000 to the County to pay for the costs and expenses related to the formation of the CFD and the issuance of the bonds.

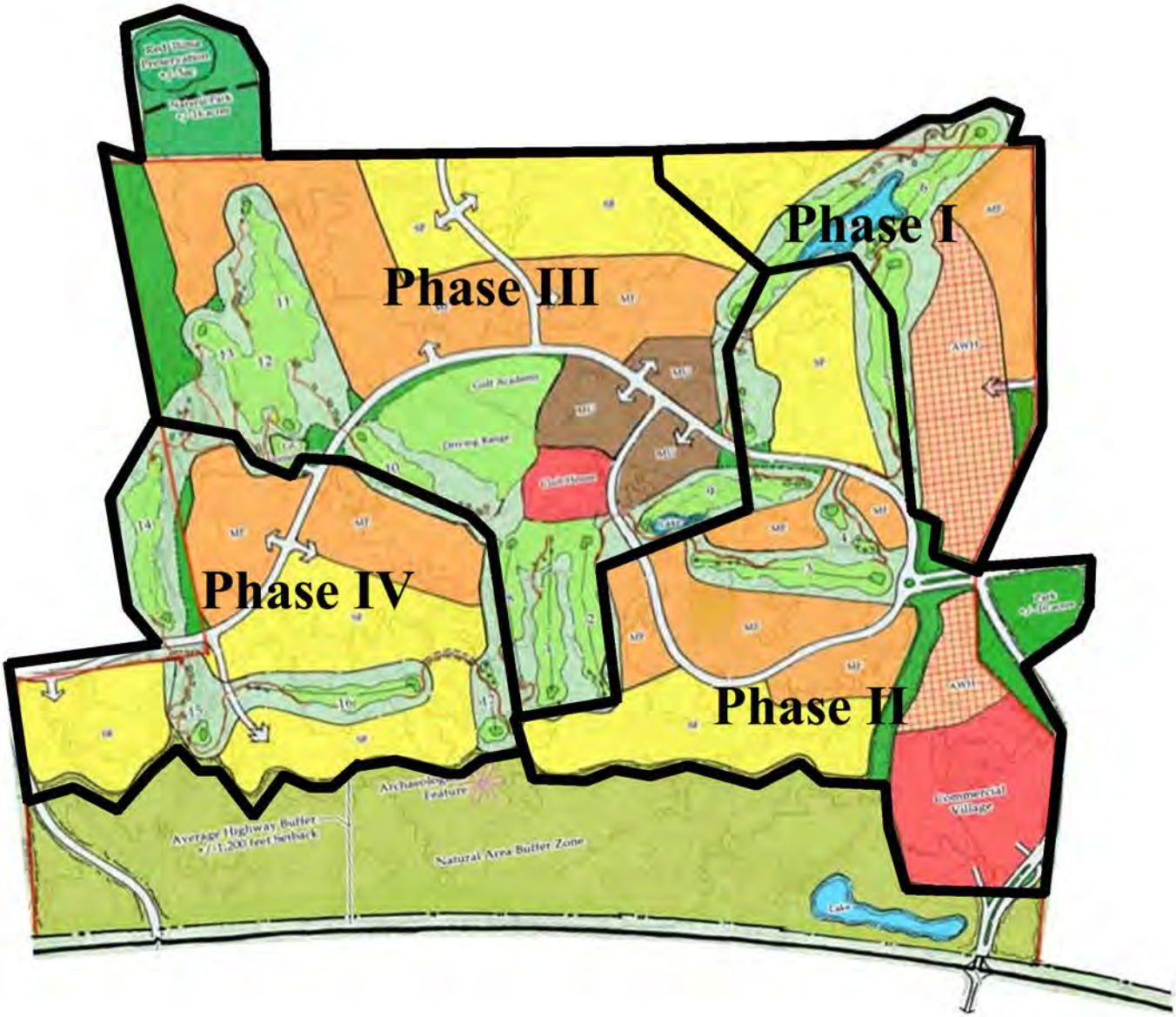


FIGURE 8A

Preliminary Phasing Plan

The Villages of ʻĀina Leʻa

DW ʻĀINA LEʻA DEVELOPMENT, LLC

ISLAND OF HAWAII

3 DESCRIPTION OF AFFECTED ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

3.1 CLIMATE

Existing Conditions

The Project is located on the northwestern side of the island of Hawaiʻi occupying a portion of the lower northwestern slope of Mauna Kea. Much of the western coast of the island of Hawaiʻi is sheltered from the northeasterly trade winds by high mountains. Winds in Kohala vary substantially over short distances and short periods of time caused by topographic effects. When trade winds are strong, high winds from the east or northeast can sweep through the saddle between Kohala Mountains and Mauna Kea. In the winter, storms can bring very strong "Kona" winds from the south or southwest for brief periods. When trade winds or Kona winds are absent or faint, local winds such as land or sea breezes in the form of downslope or upslope winds, respectively, tend to dominate the wind pattern for the area. During these times, winds typically move onshore from the west during the daytime and offshore at night and during early morning hours. Wind speeds predominantly vary between about 5 and 15 mph; however, prolonged periods of higher or lower wind speeds do occur.

The Project area receives approximately 9 inches of rainfall annually. The mean annual temperature is about 75 degrees Fahrenheit with an average high of 83 degrees Fahrenheit and an average low of 67 degrees Fahrenheit. Relative humidity is about 40 percent during the late morning and afternoon hours.

Potential Impacts and Mitigation

Development of the Project is not expected to have an impact on climatic conditions and no mitigation measures are planned. Landscaping and shade trees in parks and common areas will be planted throughout the Project to give relief and shade to pedestrians, bicyclists and park users.

3.2 GEOLOGY AND TOPOGRAPHY

Existing Conditions

The Project area is gently to moderately sloping from east to west at an average grade of about 7 percent. Elevations range from 150 feet above msl at the western boundary adjacent to the Queen Kaʻahumanu Highway and 700 feet at the eastern boundary of the Property. Although slopes within the project site range from 6 to 20 percent, the steeper sloped areas are generally associated with the gulch areas and rock outcroppings.

The Project site is bounded to the north by the ʻAuwaiakeakua Gulch. The area north of this gulch, which is owned by Bridge, is characterized by gently rolling hills. There are some trees in

this area and large boulders. Because of the boulders and terrain near the makai end of the site, views of the interior portion of the site from the Queen Kaʻahumanu Highway are somewhat obscured.

The soil north of the Gulch is characterized by stony very fine sandy loam while the soil in the southern section is characterized by ʻaʻa lava flows from the eruptions of Mauna Loa volcano located 36 miles southeast of the Property.

Potential Impacts and Mitigation

While the Project will cause some change in the topography of the Property through the preparation and construction of building pads, the golf course and infrastructure, the overall development is expected to adhere to the general topographic character of the site. The location of land uses during the detailed planning and siting of facilities will avoid changes in topography as much as possible. The golf course design in particular will use existing terrain and vegetation to enhance golf play and the scenery. Appropriate engineering, design and construction measures will utilize the natural slopes and features in the design of the golf course and in village planning efforts to minimize grading.

Information on existing drainage conditions and erosion control are provided in Sections 3.3 and 4.11.4, respectively.

3.3 SOILS

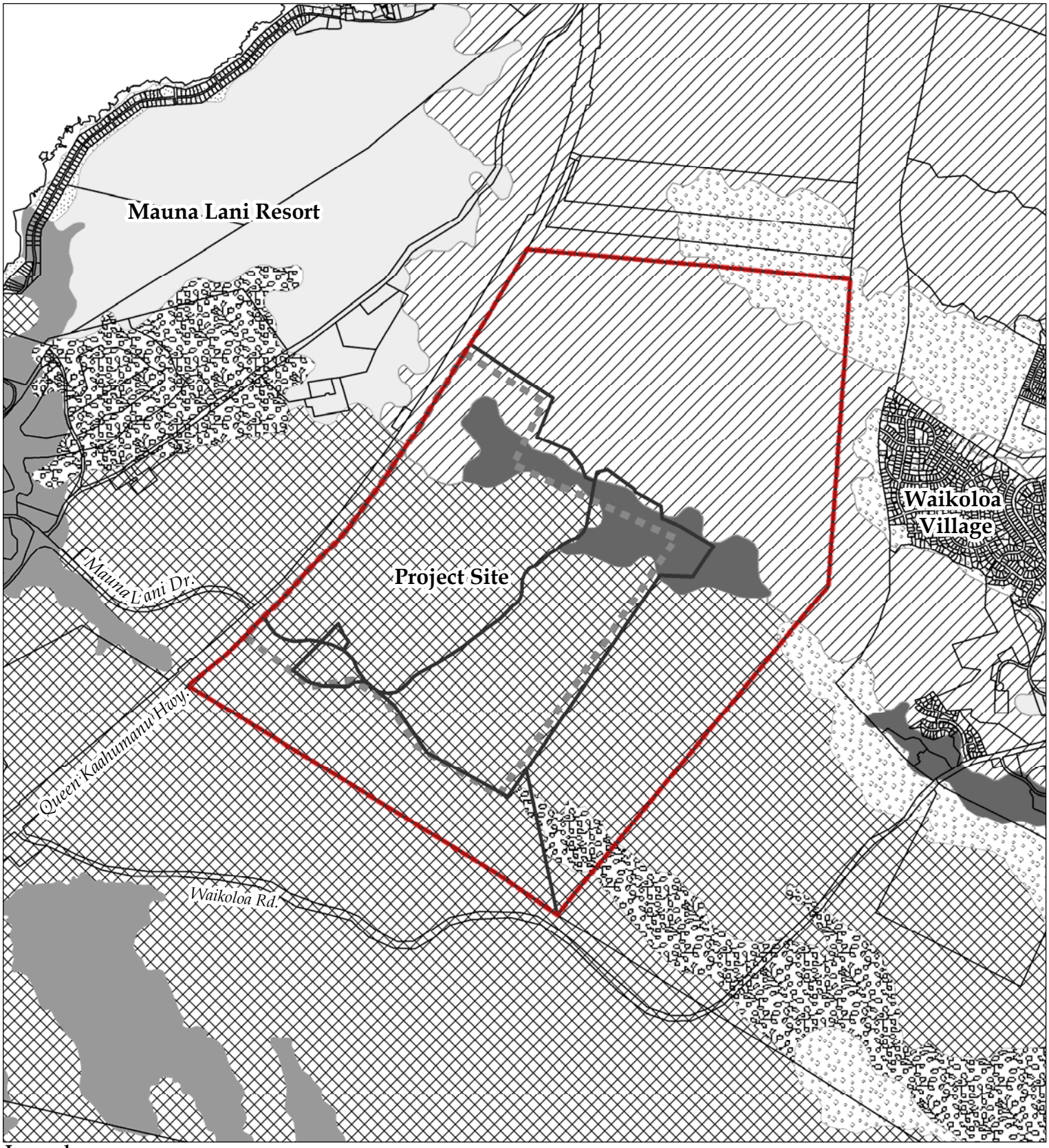
Existing Conditions

3.3.1 U.S. Department of Agriculture (USDA)-Soil Conservation Service (SCS)

The USDA-SCS Soil Survey classifies the soil in the Project area as being of the Kawaihae and Puakō series. Specific soil types are described below and shown in Figure 9.

Kawaihae extremely stony very fine sandy loam, 6 to 12 slopes (KNC). The Kawaihae soil series consists of somewhat excessively drained extremely stony soils that formed in volcanic ash. These soils have a very thin surface layer of fine sandy loam over silt loam and loam. KNC is found on the leeward coastal plains of Mauna Kea at elevations ranging from sea level to 1,500 feet. Permeability is moderate, runoff is medium, and the erosion hazard is moderate.

Lava Flows (rLV). Approximately 80 percent of the soils located on the Project site are ʻaʻa lavas, which has practically no soil covering and is bare of vegetation, except for mosses, lichens, ferns, and a few small trees. These soils are described as having limitations of stony shallow soils along with drought conditions.



Legend

- Property Boundary
- Urban District Boundary
- BEACHES
- KAMAKOA VERY FINE SANDY LOAM, 0 TO 10%
- KAWAIHAE EXTREMELY STONY VERY FINE SANDY LOAM, 6 TO 12%
- LAVA FLOWS, AA
- LAVA FLOWS, PAHOEHOE
- PUU PA EXTREMELY STONY VERY FINE SANDY LOAM, 6 TO 20%
- ROCK LAND
- VERY STONY LAND

Source: State GIS Data

Disclaimer: This graphic has been prepared for general planning purposes only.

FIGURE 9

Soil Conservation Service

The Villages of ‘Āina Le‘a

DW ‘AINA LE‘A DEVELOPMENT, LLC

ISLAND OF HAWAII

NORTH

LINEAR SCALE (FEET)

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Puʻu Pa Extremely stony very fine sandy loam (PVD). This soil type is extremely stony, very fine sand loam found on 6 to 20 percent slopes. In a representative profile, the surface layer is very dark brown, extremely stony, very fine sandy loam about 6 inches thick. The next layer is dark brown and dark yellowish brown, very stony, very fine sandy loam about 34 inches thick. It is underlain by fragmented ʻaʻa lava. The agricultural capability subclass of PVD is severely limited by stony shallow soils together with drought conditions, which make them generally unsuitable for cultivation.

Very stony land (rVS). These types of soils consist of very shallow soil material and a high proportion of ʻaʻa lava outcrops. The dominant slope is between 10 and 15 percent. Soil material between the lava outcrops and in the cracks of the lava run between 5 to 20 inches deep. Vegetation may be a sparse cover in dry areas to dense stands of ohia and tree fern in areas of high rainfall. On The Villages site, vegetation is quite sparse. The erosion hazard is slight and the soil type is unsuited for machine tillability.

A soils investigation titled *Geotechnical Engineering Reconnaissance Puakō Residential Golf Community* was prepared for The Villages site in October 7, 1991. The Geotechnical Engineering Reconnaissance report indicated that surface soils appear to occur only in the northern portion of the site. A thin cover of wild grasses with scattered thickets of kiawe trees are found on the northern portion of the site. The southern portion is exposed with ʻaʻa lava flows. Boulders and cobblestones can be found under the wild grasses.

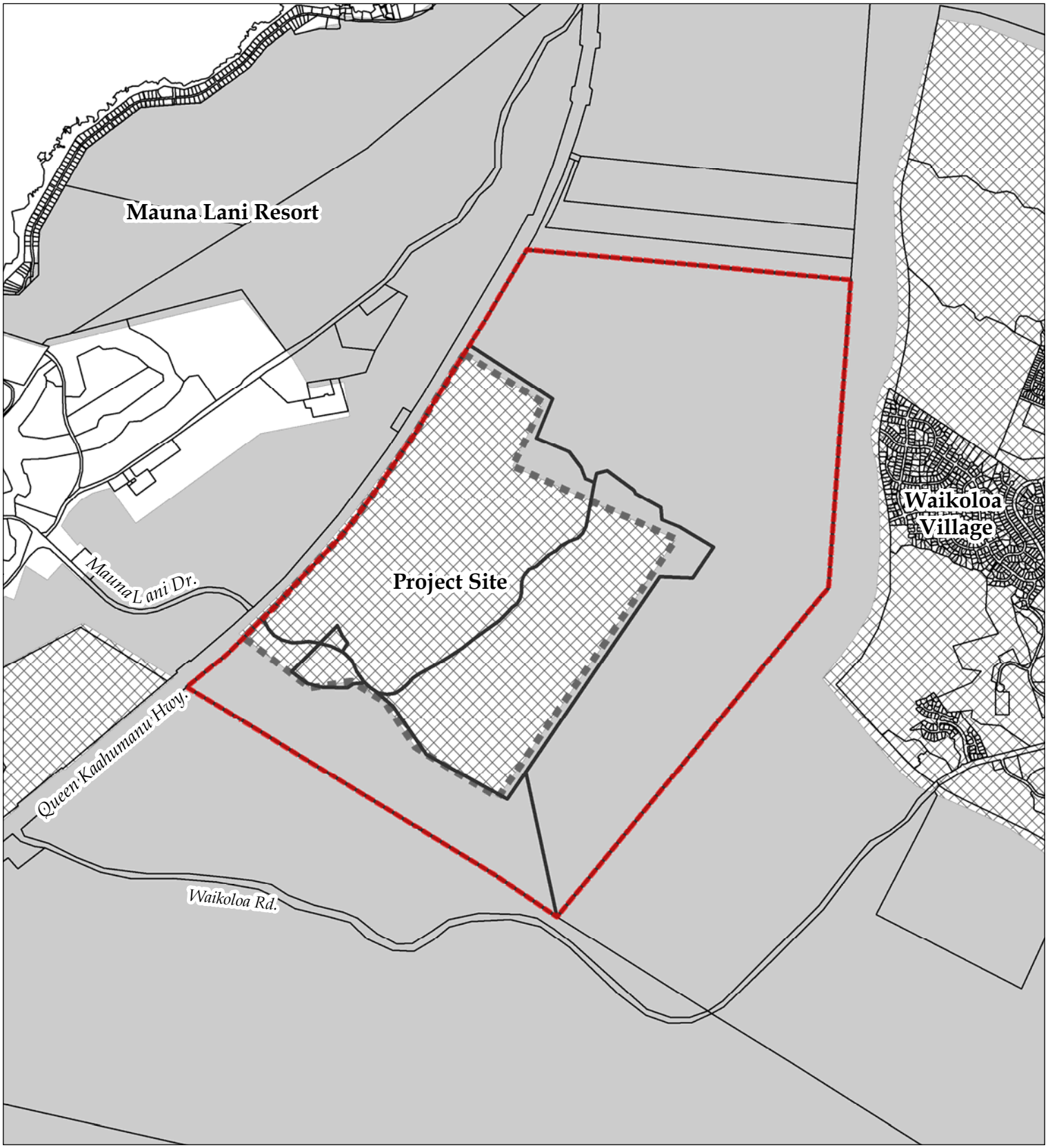
Soil maps of the Project area indicate a lack of hydric soil, which if present would identify potential areas of wetlands.

According to the *Preliminary Engineering Report for The Village of ʻĀina Leʻa* prepared by SSFM International, Inc. dated July 2009, soils conditions have not changed from 1991 to present. The Preliminary Engineering Report is included in Appendix D.

3.3.2 University of Hawaiʻi Land Study Bureau (LSB) Detailed Land Classification

The University of Hawaiʻi LSB Detailed Land Classification system classifies soils by land type according to an overall crop productivity rating with and without irrigation, and for selected crop productivity ratings for seven crops. The LSB ratings range from "A" to "E" with "A" being the best or most productive and "E" being only marginally suitable for agricultural use. Soils in urban areas are "Not Classified."

The LSB identifies most of the Property's soil as "Not Classified." A small portion of land in the SLU Agricultural District is classified "E" or very poorly suited for agricultural purposes, as illustrated in Figure 10.



Legend

- Property Boundary
- Urban District Boundary
- Hawai`i County TMK 2009

Land Classification

- Type E: Very Poor
- Not Classified

Source: State GIS Data

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FIGURE 10

Land Study Bureau

The Villages of ‘Āina Le‘a

DW ‘AINA LE‘A DEVELOPMENT, LLC

ISLAND OF HAWAII

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3.3.3 State Agricultural Lands of Importance to the State of Hawaiʻi (ALISH)

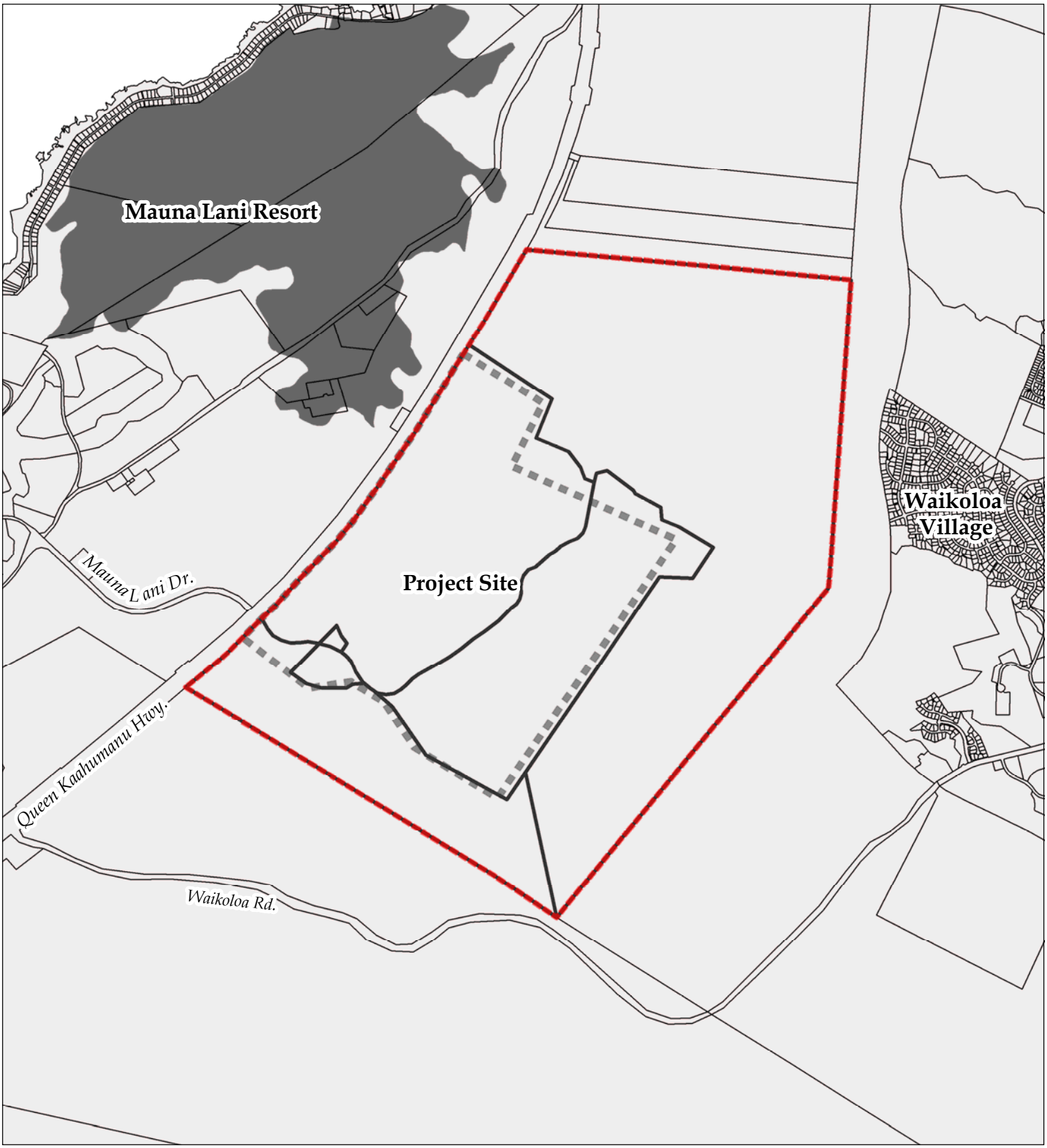
The State's ALISH system was developed by the State Department of Agriculture in 1977. The ALISH system rates agricultural land throughout the state as Prime, Unique or Other Lands. The rest of the lands are not classified.

Prime Agricultural Land is best suited for the production of food, feed, fiber and forage crops. These lands have soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed by modern farming methods.

Unique Agricultural Land can be used for specific high-value crops. This land has a special combination of soil quality, growing season, temperature, drainage, moisture supply, humidity, sunlight, or other conditions that favor the production of a specific crop of high quality and/or high yield when the land is treated and managed by modern farming methods. Coffee, watercress, and taro are examples of such crops.

Other Agricultural Land is also of statewide or local importance for production of food, feed, fiber, and forage crops. These lands can be farmed satisfactorily by applying more fertilizer and other soil additives, drainage improvements, erosion control practices and flood protection to produce good crop yields.

The Project site is not classified under the ALISH system (see Figure 11).



Legend

- Property Boundary
- Urban District Boundary
- Hawai`i County TMK 2009

ALISH Classification

- Other ALISH
- Unclassified

Source: State GIS Data

Disclaimer: This graphic has been prepared for general planning purposes only.

FIGURE 11

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

The Villages of ‘Āina Le‘a

DW ‘ĀINA LE‘A DEVELOPMENT, LLC

ISLAND OF HAWAII

NORTH

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3.3.4 Current Agricultural Activities on Property

There is no agricultural activity on the site due in large part to the absence of arable soil.

Potential Impacts and Mitigation

To address short-term impacts, soil erosion prevention and fugitive dust protection will be practiced and mitigation measures will be provided including, but not limited to, the following:

- All grading operations will be conducted in a manner that will ensure full compliance with dust, erosion, and sedimentation control standards set forth in Chapter 10, HCC, Erosion and Sedimentation Control.
- Limiting grading to not more than 20 acres at a time until dust and erosion controls are provided.
- Minimizing time of exposed graded areas.
- Grading perpendicular to slopes, as much as possible, as opposed to grading along the slopes.
- Watering soils during construction and stockpiling phases of the Project to minimize dust.
- Trucks transporting soils would be covered to minimize soil loss.

Coastal water quality should not be impacted by increased levels of fugitive dust resulting from construction due to its distance from the coastline (more than 1.5 miles).

Long-term impacts of construction on unsuitable soils will be mitigated through the performance of soil engineering performed at specific sites as building pads are developed. Recommendations will be made for mitigating building types and locations. This could include removing unsuitable soils under planned foundations and/or specific foundation designs. Further discussion can be found in Section 4.11.4.

Soils as an Agricultural Resource.

Given the land's limited resource value from an agricultural perspective, the Project should have little, if any, direct negative agricultural impact. There are no crops being grown or grazing being conducted on the Property.

The introduction of non-potable water to the Property will stimulate gardening activities on individual lots. The Project does have potential positive indirect agricultural impact of stimulating the use of locally grown agricultural products in the planned restaurants on site, as well as increasing the demand for landscape plants and turf throughout the Project.

3.4 NATURAL HAZARDS

Existing Conditions

3.4.1 Flooding

The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) designates the Property in "Zone X" (areas determined to be outside the 500-Year Flood Plain/Minimal Flooding Area). This classification is partly the result of the area not being fully surveyed in the past. Figure 12 depicts the "Zone X" FEMA classification, which is confirmed in an EISPN comment letter from the Department of Land and Natural Resources dated January 11, 2008 a included in Chapter 11. That designation was reconfirmed in a letter from DLNR dated June 29, 2010, which noted that the Flood Insurance Program does not have any regulations for developments within Zone X.

The presence of ʻAuwaiakeakua Gulch and its Northern Tributary along the northern boundary of the Property, South Stream and Puakō Gulch No. 4 is discussed in Section 4.11.4.

3.4.2 Tsunami

A tsunami is a sequence of ocean waves generated by vertical movements of the sea floor resulting from earthquakes, volcanic activity or large submarine landslides. The waves sweep inland potentially causing loss of life and damage to property.

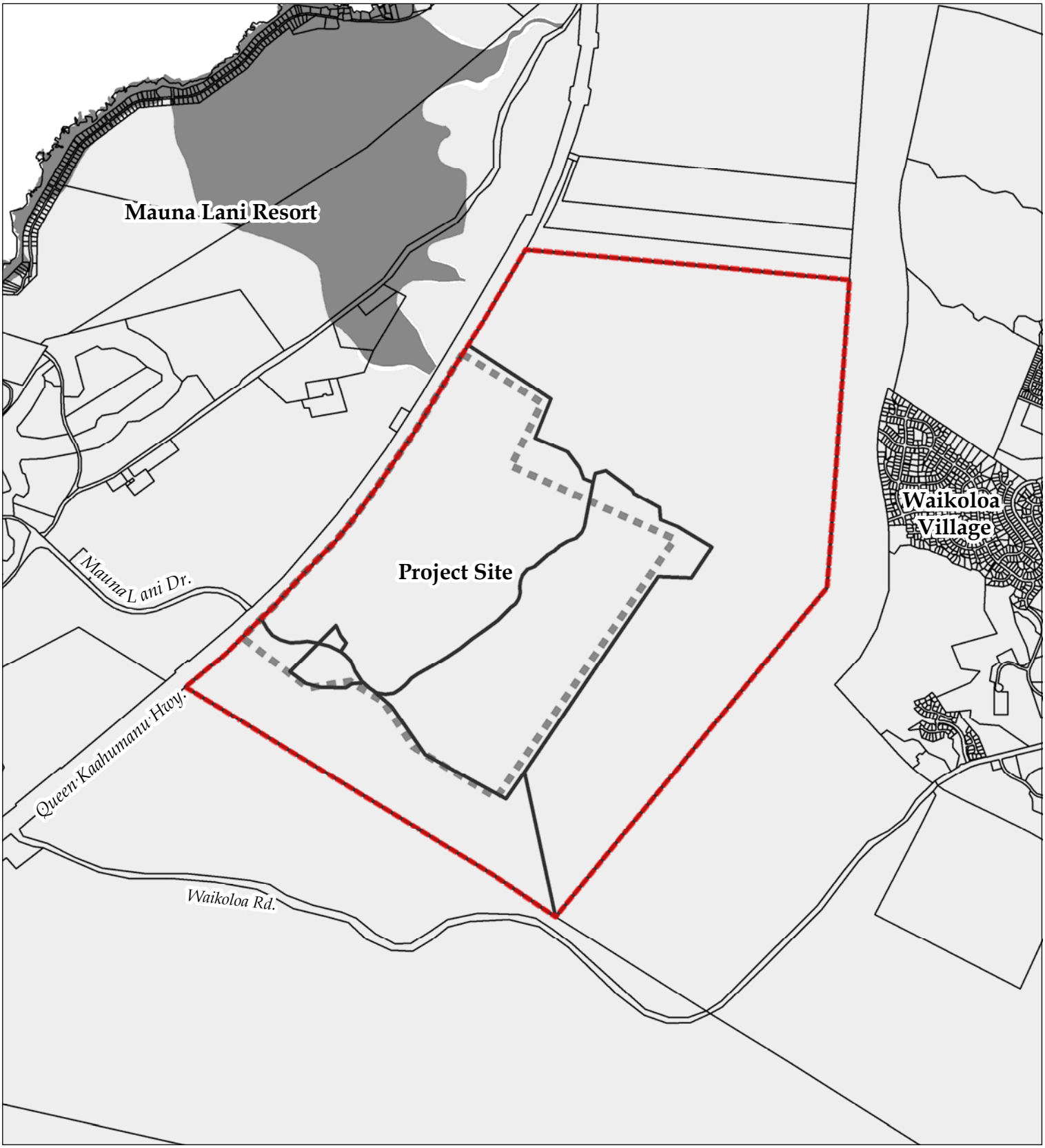
The Project site is more than 1.5 miles inland from the coastline at elevations of 150 to 700 feet above msl, and is not within a tsunami inundation or evacuation zone. However, the Applicant will consult with the County and State Civil Defense agencies on the coordination of civil defense measures, including the possible installation of omni-directional sirens.

3.4.3 Hurricanes

The Kohala Coast is potentially susceptible to hazards from Pacific hurricanes generated off the Coast of Mexico. Oahu Civil Defense data shows hurricanes approaching within 75 nautical miles of Hawaiʻi on an average of once every 10 years. Based on historical records and more modern computer simulations of hurricane tracks, Hawaiʻi County is at risk of impact from hurricanes. Hurricane-related hazards include damage from high winds in excess of 74 mph and flooding due to heavy rainfall. Storm surge, while also an associated hurricane hazard, is not a potential threat to the Project site, as the site is located more than a mile inland from the shore.

3.4.4 Earthquakes

According to the Seismic Probability Rating in the Uniform Building Code, the entire island of Hawaiʻi is designated in Zone 4. Zone 4 is the highest zone designation on a scale from 0 to 4. Zone 4 areas are at risk from major earthquake damage, especially to structures that are poorly designed or built. The Big Island experienced its most recent major on October 15, 2006.



Legend

- Property Boundary
- Urban District Boundary
- Hawai`i County TMK 2009
- Zone A: 100 Year Floodplain
- Zone X: Outside Floodplain/Minimal Flooding Area

Source: State GIS Data

Disclaimer: This graphic has been prepared for general planning purposes only.

FIGURE 12

Flood Insurance Rate Map

The Villages of ʻĀina Leʻa

DW ʻĀINA LEʻA DEVELOPMENT, LLC

ISLAND OF HAWAII

NORTH

LINEAR SCALE (FEET)

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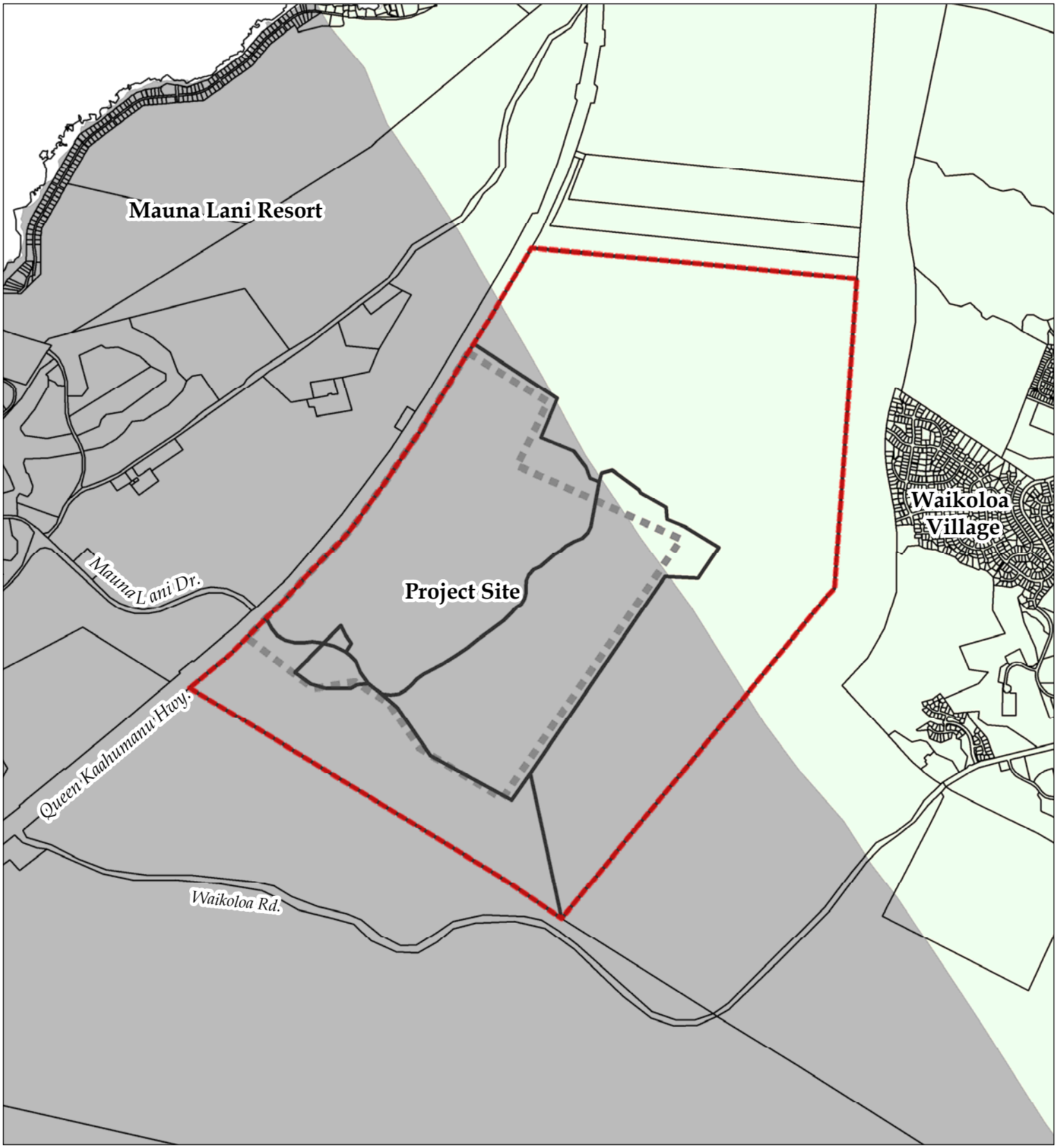
The earthquake, which registered a magnitude of 6.7 followed by a 6.0 magnitude aftershock, caused damage to piers at Kawaihae Harbor, the Kohala Ditch irrigation system, a Waimea water reservoir, several roads, and numerous private structures in North and South Kohala. No geologic damage from the 2006 earthquake was evident at the subject Property although there was no development present at the time.

3.4.5 Volcanic Activity

The U.S. Geological Survey (USGS) has identified nine volcanic hazard zones for the island of Hawaiʻi with Zone 1 representing the most hazardous areas and Zone 9 the least hazardous areas. The Property is largely situated in lava hazard Zone 3, as shown in Figure 13. Zone 3 areas have had between 1 percent and 5 percent of their area covered by lava since 1800, and between 15 percent and 75 percent of their area covered in the last 750 years. The Project site is located on basalt lava flows from Mauna Kea volcano from the Pleistocene Epoch, roughly 60,000 years ago. There are also slightly younger Mauna Kea flows in the vicinity. The most recent volcanic activity in the region was a lava flow from Mauna Loa that reached the sea in 1859 in the vicinity of Kiholo Bay, which is approximately seven miles south of the project site. A relatively small area in the northeastern corner of the site lies in hazard Zone 8. Those areas have had only a few percent of their area covered by lava in the past 10,000 years.



Legend

- Property Boundary
- Urban District Boundary
- Hawai`i County TMK 2009

Volcanic Hazard Zone

Hazard Zones are ranked from 1 (highest) to 9 (lowest)

- 3
- 8

Source: State GIS Data Disclaimer: This graphic has been prepared for general planning purposes only.

FIGURE 13

USGS Volcanic Hazards Map

The Villages of ʻĀina Leʻa

DW ʻĀINA LEʻA DEVELOPMENT, LLC

ISLAND OF HAWAII

NORTH

LINEAR SCALE (FEET)

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3.4.6 Wildland Fires

Wildland fires are a relatively frequent natural hazard faced by the residents, businesses, and wildlife of South Kohala. The region's gusty winds and arid, hot climate coupled with the fountain grass and dry vegetation increases the incidence of wildfires.

Using FEMA grant funds, the Hawaiʻi Drought Committee and the DLNR-Commission on Water Resource Management commissioned the preparation of a report to address County-wide drought issues. Composed of representatives from the federal, state and county government and private organizations, the Hawaiʻi Drought Committee proposed, among other recommendations, wildfire mitigation strategies in its *2004 County of Hawaiʻi Drought Mitigation Strategies*. Wildland fire strategies included establishing firebreaks around roads and communities in North and South Kohala and continuing the development and maintenance of a GIS map and database identifying various wildland fire protection resources.

The Waikoloa Emergency Access Road, which traverses northern portions of the Project site, provides emergency relief for Waikoloa Village residents when natural hazards or human activities force evacuation.

Potential Impacts and Mitigation

Natural hazards are difficult to predict, but would pose a risk of life and property should any occur within the Project site.

The proposed Project should not exacerbate any natural hazard conditions in the area and should improve the ability of emergency response agencies to respond to potential threats, as noted below with regards to potential wild-land fires.

If required, an emergency preparedness and response plan for the Project will be coordinated with the Civil Defense Agency.

Flooding and Tsunami. The Project is designated outside the 500-year flood plain (Zone X), and is located outside designated tsunami zones. A preliminary master drainage plan has been prepared to assess drainage system needs. Detailed drainage plans and reports will be prepared in conjunction with site plan approvals or grading permits, as required. Any improvements and structures will conform to the standards set forth in Chapter 27, HCC, relating to Floodplain Management.

No significant improvements or habitable buildings will be built within areas affected by the ʻAuwaiakeakua Gulch, the North Tributary, Puakō Gulch No. 4 or South Stream.

Further discussion on flooding, drainage, and storm water management is provided in Section 4.11.4.

Hurricane, Earthquakes and Volcanic Activity. Mitigation of hazards associated with hurricanes and earthquakes includes adherence to County building codes and standards in order to minimize potential damage. All buildings and structures within the proposed project would be designed and constructed in compliance with applicable building codes and standards. Additionally, the planned DOE school facility could be designated by the Civil Defense Agency as a potential emergency shelter. Also, as noted below, the artificial lakes, golf course, open space and parks, and landscape plantings that will be created as part of the Project will provide a buffer from wildfires that occur. In addition, development of the connector road as part of the project along the alignment of the emergency access road will improve its function in providing an alternative route for evacuation in the event of natural hazards threatening the Waikoloa area, thereby improving safety conditions for area residents.

In general, the moderate slopes and relatively stable soils at the project site do not appear prone to subsidence or rockfall, landslides or other forms of mass wasting.

Wildland Fires. The Project will also contain fire prevention measures, including access roads in accordance with the Uniform Fire Code (UFC) Section 10.207, water supply for fire suppression in accordance with UFC Section 10-301(c) and buildings under construction in compliance with the standards of UFC Article 87.

Artificial lakes, the golf course, the wide natural buffer along the highway frontage, open space and parks, and landscape plantings that will be created as part of the Project. The Applicant has also committed to work with the Hawaii Wildfire Management Organization to identify potential actions for a coordinated strategy for wildfire protection in the area. Together, these measures will improve the community's fire protection efforts by providing natural and man-made firebreaks and increasing water resources and emergency access for fire protection in the Project area.

Additionally, as noted above in the section on hurricanes, earthquakes, and volcanic eruptions, development of the connector road as part of the project along the alignment of the emergency access road will improve its function in providing an alternative route for evacuation in the event of natural hazards threatening homes in the Waikoloa area, thereby improving safety conditions for area residents.

3.5 HYDROLOGY AND WATER RESOURCES

Three studies have been conducted of the water resources of the region in conjunction with the prior applications for the property's 1989 State Land Use Boundary amendment, the 1991 change of zone request and for the subject EIS. These include: 1) *Water Supply for Signal Puakō Properties* by John F. Mink dated February 1988; 2) *Water Resources and Supply for Puakō Residential Golf Community* by Water Resources Associates dated March 1992; and 3) *Assessment of the Potential Impact on Water Resources of the Development of the ʻĀina Leʻa Village Project in South Kohala, Hawaiʻi*, dated July 2009 and prepared by Tom Nance Water Resource Engineering. A copy of the later is included with the Preliminary Engineering Report, in Appendix D.

Existing Conditions

Groundwater Occurrence. Groundwater on the South Kohala coast occurs as a freshwater "lens" floating on saline water in a basal aquifer. The South Kohala aquifer extends from the coastline to at least four miles inland. Some general characteristics of this groundwater occurrence, based on studies of the water resources in the area, are as follows:

- The groundwater stands about 1.5 to 2.0 feet above the ocean level along the makai end of the project site and about 3 feet above ocean level along the inland end of the site. The groundwater level moves up and down semi-diurnally with the ocean tide, and, more significantly, it moves up and down with longer term fluctuations in the ocean's mean water level due to large-scale meteorological events.
- The ocean's tidal variation is transmitted inland as a pressure wave in the basal groundwater. For locations inland of the project site, the tidal-driven water level variations are indiscernible and longer-term groundwater level variations do occur at these inland wells.
- Most well water temperatures in the region are affected by geothermal heating. Groundwater temperatures generally range from the high 70s to the low 80s F, with the highest temperature (95.2F) found in the vicinity of Kawaihae Harbor along the Waimea-Kawaihae Road.
- Generally, the permeability of the substrate at most well locations in the area is very high, enabling large capacity wells to be developed with relatively modest draw-downs.

Groundwater Flow Rate. The total groundwater flow rate in the nine-mile coastal segment between Kawaihae Harbor to the north and ʻAnaehoʻomalu Bay to the south is estimated to be about 90 million gallons per day (mgd). Pumpage for all wells located in the area is approximately 15 mgd. The remaining 75 mgd discharges into the marine environment. The groundwater flowing directly beneath the 1.6-mile-wide urbanized area of the project site and the approximately 2.9-mile project area is projected to be about 11 mgd and 20 mgd, respectively.

Existing Groundwater Quality. A summary of the existing groundwater quality at wells located down gradient (directly makai and north and south of the site), onsite, and directly up gradient of the site, from the Nance *Assessment,* is shown below in Table 7.

Table 7
Summary of Groundwater Quality at Various Wells

Location of the Wells	Nitrate – NO_3 (µM)	Phosphate –PO_4 (µM)	Salinity (parts/1000)
Down gradient			
Directly Makai	120.00	1.82	1.963
To the North	90.75	2.03	1.284
To the South	47.17	1.61	1.563
Onsite	72.96	1.04	2.059
Directly Up Gradient	94.66	2.28	0.379

Source: *Assessment of the Potential Impact on Water Resources of the Development of the ʻĀina Leʻa Village Project*, Nance, Table 12

This *Assessment* notes that (1) the salinity of the Project's on-site well is higher than surrounding wells, which is a result of the lower groundwater flow rate beneath the Project site; (2) nitrogen levels are exceptionally low on-site and to the south of the Project site compared to regional averages; and (3) the nutrient levels down gradient of the Waikoloa Village golf course and Waikoloa WWTPs are lower than levels up-gradient. The Nance *Assessment* concludes that this lack of an identifiable impact from Waikoloa Village generally and its disposal of wastewater specifically on regional groundwater quality is significant.

Potable, Domestic Water Use. ʻĀina Leʻa has entered into an agreement with the County Department of Water Supply (DWS) to develop up to four wells in the ʻOuli parcel in the area of the Waimea-Kawaihae Road, and related reservoir and transmission improvements in the area south and parallel to the Waimea-Kawaihae Road. Potable water from the ʻOuli wells would be added into the DWS' South Kohala System, thereby enabling the ʻĀina Leʻa project to draw its potable water supply from the DWS' existing system in the Lalamilo corridor. A copy of the Agreement with DWS is found in Appendix C. By the terms of this agreement, one of the wells would be considered a standby well and 20 percent of the capacity of the three remaining wells will be reserved for DWS. Based on the projected well pump capacities, the maximum daily supply available to the ʻĀina Leʻa project would be in the range of 2.4 mgd to 2.9 mgd. This is equivalent, by DWS standards, to an average daily supply of 1.61 mgd to 1.96 mgd, which is sufficient to meet the projected Project domestic water requirements of approximately 1.32 mgd, as detailed in Table 8.

Table 8
Estimated Potable Water Use Demand in Urban Project District

Land Use	Number	Unit	GPD/unit	Year-Round Demand (gpd)
Single Family Residential	790	Units	600	474,000
Multi-Family	1,047	Units	500	523,500
Mixed Use (MF Res)	125	Units	400	50,000
Affordable Housing	500	Units	400	200,000
Commercial	340,000	sq. ft.	121/1000 ft	40,800
Mixed Use (Commercial)	80,000	sq. ft.	120/1000 ft	9,600
Golf Course Clubhouse				15,000
Parks/Open Space				10,000
TOTAL GPD FOR URBAN PROJECT DISTRICT AREA				1,322,900

Source: Assessment of the Potential Impact on Water Resources, Nance, July 2009

Non-Potable Water Use. The non-potable use to irrigate the project golf course and roadway areas would be provided by onsite brackish wells and reclaimed domestic wastewater. As noted, ʻĀina Leʻa has an agreement to upgrade the existing West Hawaiʻi Sewer Company's (WHSC) ʻAuwaiakeakua WWTP to produce R-1 quality water for the use of up to 200,000 gallons of the treated effluent for irrigation purposes. Treated effluent would also be available from an on-site Project WWTP. The total non-potable water demand to irrigate the Project's 18-hole golf course and roadways is project at approximately 0.53 mgd, as shown in Table 9. <u>The applicant will adhere to the Department of Health's "8 conditions" applicable to new golf course development as required by the LUC and which include guidelines regarding the use of effluent for irrigation</u>

purposes and for the development and operation of the Project golf course. That will include a golf course monitoring system and Wastewater Reuse Plan, both of which will be submitted to the State Department of Health for approval.

Table 9
Estimated Average Non-potable Water Use Demand in Urban Project District

Uses	Estimated Irrigated Area	GPD/acre	Average Water Use (gpd)
Golf Course	90 acres	5,500	495,000
Roadways	8 acres	4,000	32,000
TOTAL PROJECT	**98 acres**		**527,000**

Source: *Assessment of the Potential Impact on Water Resources*, Nance, July 2009

Storm Water Runoff. Although there are four culverts at the Queen Kaʻahumanu Highway that were designed to receive runoff from mauka lands, only two northern culverts have had runoff reach or pass through them since the early 1970s: at ʻAuwaiakeakua and at the unnamed gulch to the north. On the southern half of the project site where most of the ground surface consists of ʻaʻa lavas, Nance notes that the drainageways delineated on the USGS map are not actually storm water gulches but rather the lateral boundaries of various lava flows that appear to be drainageways in aerial photos. The two gulches that cross the north end of the project do convey runoff through the project site, beneath Queen Kaʻahumanu Highway and onto the Puakō Flats area makai of the highway. The lavas in the areas of these two gulches makai of the project site are older with a greater coverage of ash deposits and runoff from the gulches leaving the project area is infrequent, occurring typically less than once ever three years.

Potential Impacts and Mitigation

Four activities associated with Project construction and full build-out have the potential of affecting the region's water resources:

- Use of potable and brackish-quality groundwater.
- Disposal of domestic wastewater.
- Percolation of excess landscape irrigation water to the underlying groundwater.
- The collection and disposal of storm water runoff.

The discussion below explains the potential impacts these activities could have on the region's hydrology and water resources.

Use of Potable, Domestic Water. The Project will impact the South Kohala water resources by increasing the demand for potable water. According to the Nance Assessment, projected potable water demands of the Project are estimated to be 1.323 mgd. Table 8 above provides a summary of the estimated potable water use demand by land use based primarily on actual consumption rates in the neighboring Waikoloa Village, which are higher than DWS standards.

To conserve potable water, a dual water system using non-potable water for irrigation purposes is planned. Because brackish and recycled water will be used for irrigation, a water reuse plan

will be developed. The plan will include information about the irrigation system design, system management, public education, and other information required by the Hawaiʻi Department of Health's "Guidelines for the Treatment and Use of Recycled Water," May 15, 2002 edition, or any newer adopted edition and subsequent adopted revisions of the guidelines.

Water conservation will also be encouraged and practiced through the use of drought-tolerant plants and trees and mulching in common areas, roads, and parts of the golf course; installing water conservation devices on showers and toilets; and applying other acceptable conservation methods.

The Assessment concludes that "[b]ased on the range of supply to be provided by the ʻOuli wells, the available supply from the ʻOuli wells will be adequate for the urbanized area."

Use of Non-potable, Brackish Water. Non-potable water uses, listed above in Table 9, include irrigation of roadside landscaping and an 18-hole golf course. It is planned that effluent from wastewater treatment will be used for irrigation to be supplemented by brackish water wells. The non-potable and recycled water demand of the Project is estimated to be 0.53 mgd.

The Nance *Assessment* calculated that within the 3.6-mile coastal segment makai of the project area between Hohai Point at Puakō Bay and Makaiwa Bay fronting the Mauna Lani Resort, the total (natural) groundwater flow rate is on the order of 35 to 40 mgd, and, accounting for the ongoing pumpage of wells in the area, a safe developable long-term brackish water supply is projected to be in the range of 12 to 18 mgd.

Groundwater Flow Rate. The Project will extract groundwater from wells in the ʻOuli parcel for potable use and onsite for (brackish) irrigation use. It will also return water to the underlying groundwater as excess applied irrigation water and discharge from individual wastewater disposal systems at the adjoining Bridge development. According to the *Assessment*, there will be a total reduction in potable and non-potable ground water flow rate of 2.67 to 3.01 mgd at full build-out (including the projected uses within the adjoining Bridge property), and an estimated 0.35 to 0.50 mgd of water will be returned to the ground water. The net decrease in flow rate is calculated to be about 2.6 to 3.3 percent of the total estimated regional coastal discharge of 75 mgd along the shoreline between Kawaihae Harbor and Anaehoʻomalu Bay. Within the mauka-makai corridor of the 3,000 combined ʻĀina Leʻa and Bridge project area, the net decrease of ground water is estimated to be in the order of 0.6 to 0.7 mgd or 3 percent of the corridors' groundwater flow rate. <u>Given the relatively small impact to the groundwater flow rate from Project-related uses, the use of brackish water for irrigation within the Project is not anticipated to impact salinity levels within the groundwater.</u>

The *Assessment* concludes that the most significant long-term issue of the Project is the sufficiency of the ground water flow rate in the groundwater's mauka-makai corridor to accommodate the Project and the combined planned uses by other developments. It concluded that the "safely developable long-term supply is probably on the order of 12 to 18 mgd" of a total 35 to 40 mgd supply. Excessive pumpage would probably result in an increase in salinity levels. The existing pumpage rate is almost 10 mgd in the mauka-makai corridor. Irrigating the

Project's one golf course would account for 0.37 mgd or a little over 1 percent of the total future usage in the mauka-makai corridor.

The *Assessment* projects a potential future regional use of 23.3 mgd, including an additional golf course at Mauna Lani Resort, the 1010 Puakō project and other planned development projects drawing from potable wells. The Nance *Assessment* notes that should all projected regional development be implemented, it is questionable whether the projected regional use of water from within this mauka-makai corridor would be sustainable, beyond the proposed Villages of ʻĀina Leʻa Project.

Nance notes that this potential shortfall could be offset, to some extent, by maximizing irrigation reuse of treated wastewater effluent from Waikoloa Village and MLR.

As mentioned in Section 2.3.9 of this EIS, the Applicant intends to blend water from its irrigation well with R-1 treated effluent from the West Hawaiʻi Sewer Company. Additionally, the Applicant plans to construct a WWTP on the adjacent lands that would be designed so that the treated effluent would be brought to R-1 standards to be reused for irrigation purposes within the project. This reuse will mitigate impact to the ground water flow rate to the degree the Project contributes to the shortfall.

Further, the Applicant will work with regional and government stakeholders to develop long-term resource conservation plan to address short- and long-term efforts towards resource sustainability.

Nutrient Additions of the Project to Ground Water. According to Nance's *Assessment*, a 0.2 to 2.2 percent increase in nitrogen concentration in the ground water is projected to occur at full build out. A decrease in phosphorous of 3.9 to 4.4 percent in the ground water is calculated. This decrease in phosphorous is projected to result from the amount of phosphorus in the groundwater withdrawn for irrigation purposes being greater than the amount returned to the groundwater via excess landscape irrigation and the discharge for individual wastewater systems in the adjoining agricultural-zoned areas.

The Applicant will implement a water-quality monitoring program with the operation of the golf course as required by the golf course use permit. This program will involve monitoring for nutrients such as nitrogen and phosphorous to minimize the excess application of fertilizers to the golf course. Best management practices for golf courses and landscaping will be employed to reduce excessive nutrient applications.

Treatment and Disposal of Domestic Wastewater. It is estimated that 35 percent of the 1.322 mgd potable water use for the Project would become wastewater. The entire Project will be connected to a wastewater treatment plant (see discussion in Sections 2.3.9 and 4.11.2). Effluent will be treated to an R-1 level and reused for golf course and landscaping irrigation. As it is reused and applied for irrigation purposes, the R-1 treated effluent is projected to have no measurable direct impact on water quality other than reducing the potential irrigation demand for the project from the brackish well sources.

Percolation of Excess Golf and Landscape Irrigation Water. The Nance *Assessment* assumed that 10 percent of the irrigation water used for the golf course and landscaping would reach groundwater. This percolated water collects dissolved fertilizer through the plant root zone and soil. The use of best golf course and landscape management practices should help to mitigate nutrient additives to the ground water. As noted above, a water-quality monitoring program, as required as part of rezoning approvals, would monitor for nutrients in the soil substrate and reduce the potential excess nutrient applications.

Collection and Disposal of Storm water Runoff. In reference to the management of storm water runoff, a Preliminary Master Drainage Plan was prepared for the Project by SSFM, a copy of which is included as Appendix E. The design intent of the Preliminary Master Drainage Plan is to utilize retention basins and drywells throughout the project so that there is no increase to the runoff leaving the site as a result of the development. In evaluating the potential impacts to water quality from surface runoff, the Nance *Assessment* concludes that, given the high permeability of the ground surface and the relatively sparse nature of the planned development, this objective of the drainage plan seems achievable and there should be no change in the quantity or impact to the water resources as a contribution of surface runoff leaving the site. The Applicant will utilize Best Management Practices for the control of stormwater.

3.6 BOTANICAL RESOURCES

Existing Conditions

A *Botanical Survey Report of the Puakō Residential Golf Community* was prepared by Evangeline J. Funk in February 1991 (see Appendix G). The survey identified four vegetation types on The Villages site: 1) Prosopis/Fountain Grass, 2) Prosopis/Grass, 3) Savanna, and 4) Prosopis/Chenopodium.

Within the Prosopis/Grass vegetation type, large colonies of the fern species *Ophioglossum polyphyllum* were found. In 1991, 15,000 fern plants were actually recorded, but the count was eventually abandoned because of the size of the transects and large number of small plants to count. Funk's assessment conservatively estimated at least 60,000 fern plants on The Villages site. It should be noted that at the time of the survey the species was incorrectly identified as *Ophioglossum concinnum*, and it is now known that the plant found on the Project site is neither endemic, as originally thought, nor is it rare, and can be found in profusion in many areas of Hawaiʻi.

The red ʻilima *(Abutilon menziesii)* was found in the Project area, just mauka of the Urban District site. This species, also known as koʻoloaʻula, is a federally listed endangered species. The last known collection of the plant came from the Puakō area in 1956. *Abutilon menziesii* is a member of the hibiscus family, has heart-shaped leaves, produces maroon-petaled flowers, and is propagated by seed and cuttings. The 1991 survey found a population of 38 individual plants (20 adults and 18 seedlings) within a 30 square foot area. The plant was not mapped to avoid removal by plant collectors. The *Report* recommended protection and preservation of the red ʻilima and its habitat. Propagation and planting by the developer were suggested.

The survey located a native plant, *Jacquemontia ovalifolia*, also known as paʻuohiʻiaka or the native morning glory, near the highway. The southeast corner of the wide, ʻaʻa lava field was also home to the native *Erythrina sandwicensis Degener* or wiliwili tree. It was recommended that these native plants also be made part of the project's landscaping.

In September 2000, Dr. Funk prepared a *Botanical Preservation and Mitigation Plan for Endangered Species Found on the Proposed Villages of ʻĀina Leʻa Development Site* (see Appendix G).

The preservation and mitigation plan contained additional discussion of the fern *Ophioglossum polyphyllum.* As noted above, *Ophioglossum polyphyllum* is neither rare nor endemic.

With regards to the red ʻilima, an exhaustive search of the area by Dr. Funk in 2000 found that the plants had probably succumbed to the hot dry conditions caused by three years of drought. Because there was a possibility that viable seeds could survive the drought and new plants could be produced under normal weather conditions, Dr. Funk recommended the area be set aside for a future botanical survey when weather conditions improve. In the meantime, it was recommended that the land within 500 feet of the location where the *Abutilon menziesii* had been previously found should not be disturbed. The preservation area is located approximately one-quarter mile south of the Waikoloa Emergency Access Road corridor and mauka of the Urban District. The 2000 survey found no other threatened or endangered species on the Property.

More recently in the vicinity of the Project, a flora survey was conducted in January 2010 by Geometrician Associates in the area of the proposed water and electrical utility corridors located on lands to the east (mauka) and north of Bridge's property. The Geometrician survey (*Survey*, located for reference in Appendix G) found no threatened or endangered species of plants in the corridor. The *Survey* also re-examined the area of the preservation area, noted above, and found no evidence of the red ʻilima in the area where it had initially been identified. The *Survey* described the preserve area and the areas of the utility corridors as being dominated by kiawe trees (*Prosopis pallida*) and buffel grass (*Cenchrus ciliaris).*

Potential Impacts and Mitigation

The Project may impact the *Abutilon menziesii,* a federally listed endangered plant species which was identified on the Property. As noted above, this species has not been found in two subsequent botanical surveys of the area over the course of nearly 10 years. A further botanical survey of the area will be conducted following a period of extensive rainfall to determine if a seed bank or seedlings of the species are still present, the results of which will be forwarded to the U.S. Fish and Wildlife Service. This plant species, if located, will be preserved by the Applicant within the 5-acre preserve area that has been designated for this purpose prior to land alterations in the associated development phase, using preservation protocols developed in consultation with the DLNR and the U.S. Fish and Wildlife Service. If the species is found, the Applicant or its botanical consultant will contact DOFAW on the potential need for a State Habitat Conservation Plan.

To minimize adverse impacts on the vegetative resources of the site, erosion control measures will be taken during the construction phase to avoid impacts to the undisturbed vegetation areas. Re-vegetation will be timed so that soil exposure will be kept to a minimum. The Applicant will also implement a landscaping program that uses numerous native plants, such as the wiliwili tree and the native morning glory, which are climatically suitable to the semi-arid environment, as recommended by Dr. Funk in the Botanical Preservation and Mitigation Plan.

Letters from the U.S. Department of the Interior, Fish and Wildlife Service dated October 12, 2000, and from the DLNR, Division of Forestry and Wildlife dated November 15, 2000, both agree with Dr. Funk's preliminary preservation and protection recommendations for the *Abutilon menziesii* (see Appendix G).

3.7 AVIFAUNAL AND MAMMALS

Existing Conditions

In January 1991, a *Survey of the Avifauna and Feral Mammals at Puakō, South Kohala, Hawaiʻi* was conducted of The Villages area by Phillip Bruner (see Appendix H). The *Survey* did not find any rare or endangered animal species on the site. The only native bird species found were the migratory Pacific Golden Plover (*Pluvialis fulva*) and the Ruddy Turnstone (*Arenaria interpres*). Bruner concluded that the "conversion of this site into golf course and residential property should result in an increase in the population of plover and turnstone."

Although the short-eared owl or *pueo* (*Asio flammeus sandwichensis*) and Hawaiian hawk or *io* (*Buteo solitarius*) were not observed, both birds may occur on occasion or may forage in this area, according to Bruner.

A number of exotic birds were observed or are expected to be within this area. These include the gray francolin (*Francolinus pondicerianus*), spotted dove (*Streptopelia chinensis*), common myna (*Acridotheres tristis*), and yellow-billed cardinal (*Paroaria capitata*), among others. The small Indian mongoose (*Herpestes a. auropunctatus*), feral cats (*Felis c. catus*), and feral goats (*Capra h. hirca*) were among the feral mammal species identified in the survey. The endemic and endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), the only native Hawaiian land mammal, was not observed in the field survey despite evening searches of the area.

A subsequent Fauna Survey conducted in January 2010 by Geometrician and Associates, LLC (see Appendix G) of the areas of the Project utility corridors located directly east and northeast of the Project found the animal species in these areas to be all exotic species, similar to findings of the initial Bruner Survey, and no rare or endangered animal species were located within the utility corridor areas.

Although not detected in the latter survey of the property, which took place in daylight, the Hawaiian Hoary Bat may be present in the general area, as it is present in many areas on the island of Hawaiʻi and has been observed in kiawe scrub vegetation in Kona. They may forage for flying insects over portions of the project area on a seasonal basis, though the extremely dry

character of the site and the lack of dense vegetation provide little in the way of attractive food resources for a bat.

Additionally, as noted in comments to the Draft EIS from the USFWS, the Blackburn's sphinx moth *(Manduca blackburni)*, which is listed by the USFWS as an endangered species, is suspected of feeding on plant species in the Solanaceae family, which include many garden and ornamental plant species, such as tomato (*Lycopersicon esculentum)*, eggplant (*Solanum melongena)*, sweet pepper (*Capsicum)*, and petunia (*Petunia)*, as well as some common roadside plants such as jimsom weed (*Datura stramonium)* and tree tobacco (*Nicotiana gluaca*). The tobacco tree (*Nicotiana gluaca*), in particular, is an aggressive species that is ubiquitous throughout the region and is regularly found along roadsides and newly disturbed areas such as construction sites. As such, there is the possibility that some tree tobacco (*Nicotiana gluaca*) would be found on the Project site as development construction progresses.

Potential Impacts and Mitigation

No native landbirds were detected and are unlikely to be found on the Project site, other than perhaps the *pueo*. This diurnal bird of prey is regularly seen within the grasslands of North and South Kohala but was not noticed during either of the faunal surveys of the property. There is some possibility the development of the property may temporarily displace *pueo*. Any such disturbance, however, would be of a temporary nature, as there is abundant additional suitable habitat within the Waimea plains area into which any displaced owls could move. This species is currently widespread in Kohala and does not have special protective status under either the State or Federal endangered species statutes.

Additionally, it is possible that small numbers of the endangered endemic Hawaiian Petrel (*Pterodroma sandwichensis*) and the threatened Newell's Shearwater (*Puffinus auricularis newelli*) may overfly the project area between the months of May and November. Hawaiian Petrels were formerly common on the Island of Hawaiʻi. Newell's Shearwater populations have dropped precipitously since the 1880s (Banko 1980, Day et al., 2003). This pelagic species nests high in the mountains in burrows excavated under thick vegetation, especially *uluhe* (*Dicranopteris linearis*) fern. Newell's Shearwater was listed as a threatened species by the USFWS in 1975 and by the State of Hawaiʻi in 1973.

The primary cause of mortality for both Hawaiian Petrels and Newell's Shearwaters is thought to be predation by alien mammalian species at their nesting colonies. Collision with man-made structures is considered to be another significant cause of mortality of these seabird species in Hawaiʻi. Nocturnally flying seabirds, especially fledglings on their way to sea in the summer and fall, can become disoriented by exterior lighting. When disoriented, seabirds often collide with manmade structures, and if they are not killed outright, the dazed birds become easy prey for feral mammals. There is no suitable nesting habitat within or close to the project area for either of these pelagic seabird species.

The Project will cause some measure of disruption of wildlife use of the site, especially during the construction phase. According to the Bruner study, most birds and feral mammals are

expected to migrate to neighboring undeveloped areas during this period. When the project is completed, however, it is anticipated that the site will be attractive to many birds.

In that outdoor lighting within the project may attract Hawaiian Petrels and Newell's Shearwaters, which may become disoriented by the lighting, to mitigate the potential downing of these birds by their interaction with outdoor lighting, no unshielded construction or equipment maintenance lighting would be permitted after dark between the months of April and October. All permanent lighting should be shielded in conformance with Hawaiʻi County Outdoor Lighting Ordinance (Hawaiʻi County Code Chapter 9, Article 14), which requires shielding of exterior lights to lower the ambient glare.

In addressing the possibility of the potential presence of the Blackburn's sphinx moth within the Project, the Applicant has agreed to survey the property for the presence of the moth in association with tree tobacco prior to further land alteration in the Project Site, and, if the moth is found, would work with the USFWS to prepare an appropriate management plan for the protection of this invertebrate species on the property.

4 DESCRIPTION OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

4.1 HISTORICAL PERSPECTIVE OF REGION AND PROPERTY

Based upon archaeological and cultural studies, the Waikoloa region can generally be divided into three major cultural or historic phases: the indigenous Hawaiian occupation prior to 1850, the ranching period from 1850 to 1940, and the military and modern use after 1940.

When the first American ships arrived on the islands in 1790, the life of crewmate Isaac Davis was spared, and he eventually became allied with King Kamehameha I in his conquest of the islands. Later, another crewman, John Young, was captured by Kamehameha, but eventually joined the unification forces. When the island was successfully unified in 1790 under Kamehameha, Davis and Young were rewarded with land: Young was given ʻOuli and the ahupuaʻa of Kawaihae 2. Davis received the less productive lands of Waikoloa. During the Great Mahele, the children of Davis and Young received a significant amount of land in the region. Waikoloa was later purchased by Parker Ranch, as noted in a 1901 Government Survey Map.

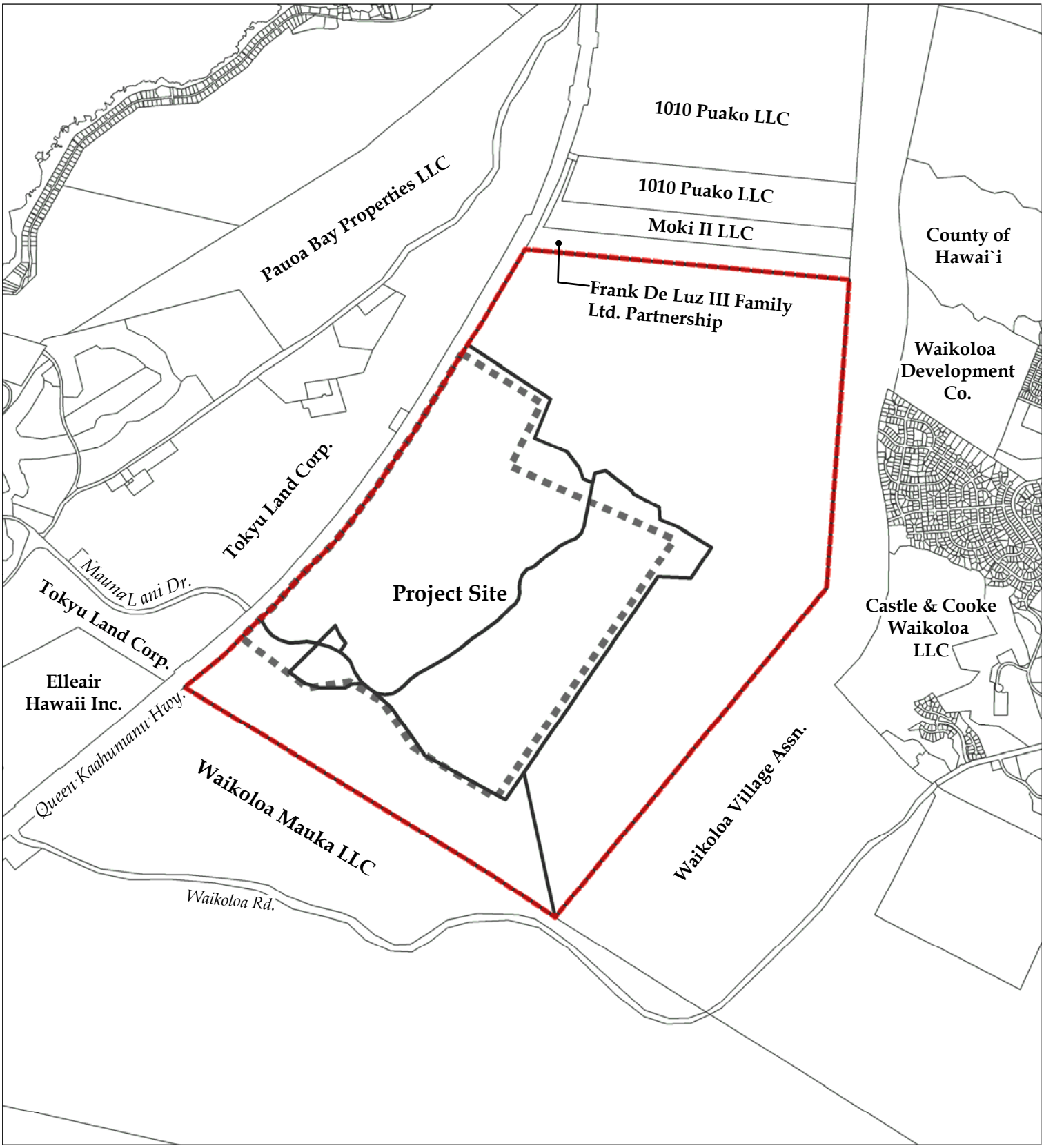
In December 1943, the U.S. Navy acquired 91,000 acres of land from Parker Ranch. Portions of the land were used as an artillery and naval gun firing range while other sectors were used frequently for troop maneuvers and weapons training. In 1946, the military returned the land to Parker Ranch. In 1960, Parker Ranch sold approximately 3,000 acres to Signal Puakō Corporation, which sold it to Nansay Hawaiʻi, Inc. in the 1980s. Since then, ownership of the 3,000 acres was transferred to Puakō Hawaiʻi Properties and then to Bridge Capital LLC. The property was then sold/transferred to Bridge ʻĀina Leʻa. The 1,092-acre primarily urban portion of the original 3,000 acre property was sold to the Applicant in 2009.

4.2 ADJACENT USES AND LANDOWNERS

Lands in the immediate area are vacant. Mauna Lani Resort and its related facilities are nearly a mile from Queen Kaʻahumanu Highway. The County of Hawaiʻi's South Kohala Fire Station is situated west (makai) of the highway and across from the Property's northwestern boundary.

The Property is surrounded to the north, south, and east by lands owned by Bridge. Lands north of the Bridge property are owned by Frank De Luz III Family LP, Tri-Kohala Development/Moki II LLC and Tri-Kohala Development/1010 Puakō LLC; to the south by Waikoloa 3784 LLC; and to the east by Waikoloa Village Association (see Figure 14). There is no visible active use of these properties, although portions of the project infrastructure (power, potable and non-potable water) easements and related improvements are planned on the Waikoloa Village Association lands that are situated between Waikoloa Village and the Project.

The Property is part of the South Kohala local community consisting of Waikoloa, Mauna Lani, Hapuna, and Mauna Kea resorts, the residential-resort community of Puakō and Waikoloa Village. Waikoloa Village is less than one-half mile away from the Property's easternmost boundary.



Legend

- Property Boundary
- Urban District Boundary
- Hawai`i County TMK 2009

FIGURE 14

Adjacent Landowners

The Villages of ʻĀina Leʻa

DW ʻĀINA LEʻA DEVELOPMENT, LLC

ISLAND OF HAWAII

NORTH

LINEAR SCALE (FEET)

0 750 1,500 3,000 6,000

PBR HAWAII & ASSOCIATES, INC.

05/03/2010

Source: Hawaii County GIS Data and Hawaii County Real Property Tax Website.
Disclaimer: This graphic has been prepared for general planning purposes only.

4.3 ARCHAEOLOGICAL AND HISTORICAL RESOURCES

Existing Conditions

Numerous surveys and archaeological work have been performed of the Kohala district. The work shows the initial occupation of the ʻAnaehoʻomalu coast occurred between A.D. 900 and 1000. Population increased gradually after around A.D. 1200. Permanent habitations were formed around the bays and inland areas with greater rainfall were used to grow agricultural crops. Trails would link the coastal regions to upland areas where temporary habitation sites were found to shelter people working the fields. The Property is located in what archaeologists call a "transitional zone," which is a region between the coast and the upland zone.

The Property and the larger 3,000-acre Villages site have been the subject of several archaeological studies. Table 10 below is a partial list of the archaeological work conducted and prepared for the Property and/or The Villages site.

Table 10
Archaeological and Historical Work of The Villages Since 1987

TITLE OF REPORT	DATE	CONSULTANT	COVERAGE AREA
An Archaeological Reconnaissance Survey at TMK: 6-8-01:25, 36-42, District of South Kohala, Ahupuaʻa of Waikoloa, Island of Hawaiʻi.	1987	Archaeological Consultants of Hawaiʻi	1,000-acre Urban area (Applicant's Property)
Archaeological Survey and Evaluation Puakō Residential Golf Community South Kohala, Hawaiʻi Island	Revised August 1992	Ogden Environmental and Energy Services	2,000-acres Ag area Bridge property; however, report included survey results of entire 3,000-acre area
An Archaeological Inventory Survey Report for the Bridge ʻĀina Leʻa Residential Golf Community Development Located at TMK: 6-8-01:25, 36, 37, 38, 39 & 40 (Pors), in the Ahupuaʻa of Waikoloa, District of South Kohala, Island of Hawaiʻi	Revised December 2002	Archaeological Consultants of the Pacific	1,000-acres Urban area (Applicant's Property) and Power Line Corridor
Burial Treatment Plan, Site 15033, Land of Waikoloa, South Kohala District, Island of Hawaiʻi (TMK: 6-8-01:37)	February 2004	Haun & Associates	TMK: 6-8-01: 37 (por) Agricultural Area Bridge property
Archaeological Data Recovery Report for the Bridge ʻĀina Leʻa Residential Golf Community Development Located at TMK:6-8-1:25, 36, 37, 38, 39 & 40	Revised September 2005	Archaeological Consultants of the Pacific	3,000 acres; Feature 22514:A

The December 2002 *Archaeological Inventory Survey* of the Project site performed by Archaeological Consultants of the Pacific (see Appendix I) identified ten sites comprised of thirteen individual features, including a rock shelter previously identified in the 1987 survey, C-shaped walls with associated ahu, four independent ahu and a stone-covered hearth. The rock shelter, C-shaped walls with ahu and the stone-covered hearth were believed to have been utilized for temporary habitation during the pre-Contact Period. The four independent ahu were believed to be boundary markers for pasturelands used in the post-Contact Period. A modern fire

pit, a possible lithic extraction site, and a possible trail segment were encountered but later determined not to represent significant historic properties. The specific site numbers and features are described in Table 11 below:

Table 11
Archaeological Sites, Function, Significance and Recommended Treatment

Site No.	Description	Function	Significance Criteria	Recommended Treatment
Site 22509	Stone-covered heart	TH	NLS	NFW
Site 22510	C-shaped wall w/ahu	TH	D	NFW
Site 22511	Three stone ahu	Ag/BM	NLS	NFW
Site 22512	C-shaped wall w/ahu	TH	D	NFW
Site 22513	C-shaped wall w/ahu	TH	D	NFW
Site 22514	Rock shelter, C-shaped wall w/ahu	TH	D	DR
Site 22515	C-shaped wall w/ahu	TH	D	NFW
Site 22516	C-shaped wall w/ahu	TH	D	NFW
Site 22517	Ahu	Ag/BM	NLS	NFW
Site 22518	C-shaped wall w/ahu	TH	D	NFW

Source: Archaeological Inventory Survey, Revised December 2002
Function Code: **TH** - Temporary Habitation; **Ag** - Agriculture; **BM** - Boundary Marker. Significance Criteria Code: **D** - Site has yielded or is likely to yield information important in prehistory or history; **NLS** - No Longer Significant. Recommended Treatment Code: **NFW** - No Further Work; **DR** - Data Recovery.

Based on the results of the Survey, it was recommended that mitigation of potential "adverse effects" on significant historic properties be implemented. Mitigation of the measures would consist of data recovery and preservation of Site 22514, which would be presented in separate documents. The DLNR-Historic Preservation Division (SHPD) approved the December 2002 *Archaeological Inventory Survey* in a letter dated July 1, 2003 (see Appendix I).

In September 2005, Archaeological Consultants of the Pacific, Inc. prepared *An Archaeological Data Recovery Report for the Bridge ʻĀina Leʻa Residential Golf Community Development Located at TMK: 6-8-01: 25, 36, 37, 38, 39, & 40 in the Ahupuaʻa of Waikoloa, District of South Kohala, Island of Hawaiʻi* (see Appendix J). Data recovery found that the rock shelter, Site 22514, was recurrently used from as early as A.D. 1300s. The presence of faunal remains indicates that the rock shelter was "occupied by people carrying out the traditional Hawaiian practice of harvesting seabirds," quoting Dr. Alan Ziegler. Also, artifacts like a grinding stone, basalt platform, and echinoderm spine abraders implies that tool manufacturing took place here. Kukui nut shell fragments were found, which suggests that kukui nut oil may have been extracted at the shelter. A preservation plan was recommended for the rock shelter. DLNR-SHPD approved the 2005 *Report* in a letter dated October 27, 2005 (see Appendix J).

On the Bridge property in the Agricultural District, a burial was identified (Site 15033). A burial treatment plan was prepared in February 2004 for Bridge by Hahn & Associates (see Appendix K). The burial, with a recommended 20-foot buffer, is located more than 1,000 feet from the Project Site, and over 900 feet, at the closest point, from the alignment of the Water Utility Corridor, shown in Figure 4, that extends from Waikoloa Village to the Project Site through

portions of the adjacent Waikoloa Village Association lands (TMK 6-8-02:19) and Bridge property (TMKs 6-8-01: 40 and 37).

While the electrical power utility corridor had been subject of the initial 2002 Archaeological Inventory Survey listed above, the alignment of the water utility corridor had not been known at the time and was, more recently, subject of an Archaeological Reconnaissance Survey (*Reconnaissance Survey*), conducted by Haun & Associates in January 2010 (see Appendix I). The Haun *Reconnaissance Survey*, similar to the previous electrical utility corridor survey, found no archaeological sites or features within the area of the utility corridor.

Potential Impacts and Mitigation

The DLNR-SHPD determined the collection of archaeological surveys and reports to be sufficient. With the implementation of a treatment and preservation plan, archaeological impacts should be mitigated.

Site No. 22514, the rock shelter with cultural and invertebrate/vertebrate remains, will be preserved in place adjacent to the golf course, in the area of the Highway Buffer area. A preservation plan will be prepared for review and approval by the DLNR-SHPD when its interface with the golf course or residential pad is determined.

The Project will not impact Site 15033, a burial outside of the Project site on Parcel 37 owned by Bridge. The Burial Treatment Plan accepted and approved by the State Burial Council will be implemented by Bridge, its successors or assigns when its plans proceed.

4.4 CULTURAL RESOURCES

Existing Conditions

A *Cultural Impact Assessment* of the proposed Project dated August 2007 was conducted by Helen Wong Smith (see Appendix L). An *Addendum* to the Cultural Impact Assessment was also prepared in July 2009 to address the possible existence of a cattle drive trail on the Project site (see Appendix L).

The cultural assessment reviewed a wide range of written material, including archaeological reports, government and historical records, Hawaiian language sources, and transcripts of a long series of interviews with native Hawaiians who resided and worked the lands.

Cultural features have been found for the general Waikoloa area, but not specific to the project area. Most cultural sites in this section of South Kohala are located between the 40- and 280-foot elevations with the greatest amount near gullies and gulches. The *Assessment* says that, with the exception of one burial, archaeological surveys uncovered remains of remnants of military operations from World War II. As discussed in the previous Section 4.3, the burial is outside the current Project site.

Nevertheless, in preparing the burial treatment plan discussed above in Section 4.3, legal notices were published in newspapers of local and statewide distribution requesting that any person having any information concerning the unmarked grave in the 3,000-acre Villages area contact the Office of Hawaiian Affairs, the project archaeologist and/or DLNR-SHPD's Burial Sites Program. No individuals claiming lineal descent responded to the notices.

In an EISPN comment letter from Deborah Chang dated January 7, 2008, it was requested that the cultural impact assessment research whether a portion of a major, historic mauka-makai trail is located on the properties (see Chapter 10).

An *Addendum to Cultural Impact Assessment for DW ʻĀina Leʻa dated July 2009* located a portion of a cattle drive trail beginning at the Puakō Gate makai of the Property some 120 yards off the Queen Kaʻahumanu Highway near the 72-mile marker. A segment of the cattle drive trail traverses the Property parallel to the ʻAuwaiakeakua Gulch. The identification was made through a combination of sources: from recollections by Robert "Sonny" Keakealani, Jr.'s (Uncle Sonny) of the accounts of his father, from Robert Keakealani, Sr., who traversed the trail, from an on-site visit, and from prior SHPD communication in 1992 that concluded the trail was historic "from the ranching era or when the area was used for military training during the early part of this [20th] century." This conclusion was reinforced by the review of two maps, one from the 1800s and the other from 1928, neither of which indicated the trail. According to the *Addendum*, the trail was used by cowboys of Puʻuwaʻawaʻa Ranch to drive cattle from the base of Puʻu Kuʻainiho to the Puakō Gate. Uncle Sonny had not traveled the cattle drive trail, but was informed by his father that it was not utilized after the 1930s when cattle were shipped out of Kawaihae or Kailua instead of Puakō. In its 1992 letter, SHPD concludes that "due to its recent age, our office believes that it does not constitute a significant historical site, hence not worthy of further recordation, data recovery or preservation." (see Appendix L).

A further addendum to the Cultural Impact Assessment Report was prepared in January 2010 by Haun & Associates (see Appendix L) to review the areas of the utility corridors, which were not considered in the prior Wong-Smith Assessment Report. As part of the Haun *Assessment*, two previously unidentified sites were noted along the HELCO easement. These sites are described as a small circular enclosure and a small mound, both overlooking a gulch, approximately 138 feet apart. The sites were described as being similar to other WWII military training-related sites described in prior studies of the area and were determined to be related to the same military training-related activities. The archival research and field inspection conducted as part of the Haun Assessment of the utility areas did not identify any culturally significant resources in the utility corridors or any additional evidence that they were currently being used for any traditional cultural practices.

Potential Impacts and Mitigation

Given the information gathered for the *Cultural Impact Assessment* report and *Addendum*, the Project could impact a mauka-makai cattle drive trail. Otherwise, cultural impacts should be minimal.

A segment of a mauka-makai cattle drive trail traverses portions of the Property parallel to the ʻAuwaiakeakua Gulch. While the trail has limited value from an historical perspective, based on the assessment of the State Historical Preservation Division, it may be of some cultural significance in providing a linkage with past ranching activities that occurred in the area. Portions of the cattle drive trail can be preserved and integrated into the development, where appropriate, and interpretive signage can be installed. In this manner, its cultural significance will be retained.

The Project is located more than 1,000 feet west of a burial site on an adjacent parcel of land not owned by the Applicant. A water utility corridor that traverses the adjacent property to serve the project was examined as part of a subsequent cultural impact assessment work performed by Haun & Associates (see Appendix L) and was confirmed to be, at its closest point, more than 900 feet from the burial site. The Haun *Assessment* notes that the burial site is the only culturally significant site identified by previous studies in the vicinity of the Project. A Burial Treatment Plan for this site, which is included for reference as Appendix K, was prepared Haun & Associates (2004) and approved by SHPD and the Hawaiʻi Island Burial Council (SHPD LOG NO. 204.2992, DOC NO. 0410KL01). The Haun *Assessment* concludes that adherence to the Burial Treatment Plan will assure that the burial site will not be impacted by the Project development.

4.5 ORDNANCE AND EXPLOSIVES

Existing Conditions

The Property is within the Former Waikoloa Maneuver Area (FWMA), a 123,000-acre area used during World War II by the U.S. military as a training camp and artillery range. The FWMA encompasses the communities of Waikoloa, Waimea, Kawaihae and portions of the Kohala Coast. Live ordnance has since been found in the FWMA prompting intermittent clean-up activity over the years. In 1992, the U.S. Army Corps of Engineers (USACE) determined that the FWMA was eligible for federal funds to conduct phased field investigations, engineering evaluation/cost analysis, and remediation/removal of potential unexploded ordnance (UXO). USACE conducted field investigations in the late 1990s and a time-critical removal action was completed in 2001. Areas of highest risk, such as schools and residential communities, were swept for UXO first. The next phase is to remediate the undeveloped areas within the FWMA.

The Applicant and Bridge have given the USACE permission to enter the Project and Villages sites for the purpose of conducting UXO/explosive removal and investigation. According to a January 2010 conversation with the USACE Military Munitions Response Program (MMRP) Manager, the contract was awarded in the latter half of 2009 and the task of surveying the property is ongoing and will be phased so as to precede the phases of development.

Potential Impacts and Mitigation

The presence of UXO and other military debris on the Property will be significantly reduced with the remediation and UXO removal program commissioned by the USACE. Remediation

and removal is ongoing and should be completed over the complete Project site in the next few years. There is still a possibility that UXO or military debris could be found on the Property during on-site construction. Construction personnel will be trained to recognize and immediately report to the Army any suspected munitions encountered. The notice of public findings of the Honolulu Engineer District will be made available to lot buyers as part of the sales program.

4.6 ROADS AND TRAFFIC

A revised *Traffic Impact Analysis Report for The Villages of ʻĀina Leʻa* was prepared in August 2010 by SSFM International (see Appendix M). The 2010 TIAR identified current traffic and roadway conditions, forecasted future traffic conditions with and without the proposed Project, analyzed existing and future traffic conditions, and analyzed future conditions with traffic generated by other adjacent properties with unscheduled plans. The information below is obtained from this TIAR.

Existing Conditions

Roadways. Access to the Project would be from the Queen Kaʻahumanu Highway, a two-lane, limited access, Class I State highway between Kawaihae and Kailua-Kona. It has a posted speed limit of 55 miles per hour and a two-way capacity of 2,000 vehicles per hour. The roadway is in a 350-foot right-of-way at the Waikoloa Road intersection and is in a 425-foot wide right-of-way at the Mauna Lani Drive intersection. Intersections on the Queen Kaʻahumanu Highway in this area are fully channelized and signalized where warranted.

One intersection is with Waikoloa Road forming a signalized T-intersection. Waikoloa Road is a two-lane County road that runs between the Queen Kaʻahumanu Highway and Māmalahoa Highway. Waikoloa Road is the only mauka-makai road running between the two major highways for miles. Waikoloa Road also serves as the only ingress/egress for the Waikoloa Village community. The posted speed limit is 55 mph with the exception of the Waikoloa Village urban area where the speed limit is reduced to 35 mph and Waikoloa Road turns into a four-lane divided road.

Mauna Lani Drive, which is across and on the makai (west) side of the Project's southern access point, is a two-lane private road providing the only access to Mauna Lani Resort. Mauna Lani Drive is not signalized, but has separate turning lanes on all approaches of this T-intersection. The posted speed limit is 35 mph to the security gate on Mauna Lani Drive where it decreases to 25 mph. A portion of the Waikoloa Emergency Evacuation Road traverses the northwest corner of the property. This gravel, gated road built by the County in 2006 connects Waikoloa Village to the Queen Kaʻahumanu Highway at the Project's northern access point.

Existing and Projected Traffic Conditions Without Project. Using traffic counts taken by the DOT, daily traffic volumes at the Queen Kaʻahumanu Highway-Kawaihae Road intersection approximately seven miles to the north have increased more than 12 percent over an eight-year period from 1998 through 2004. This represents an average annual increase of 1.5 percent per year. This percentage was used to extrapolate the projected traffic increase to the year 2020.

Existing conditions at the Queen Kaʻahumanu Highway-Waikoloa Road and Queen Kaʻahumanu Highway-Mauna Lani Drive intersections are generally good during peak morning and afternoon hours. However, the left-turn movement from Mauna Lani Drive onto Queen Kaʻahumanu Highway in the afternoon peak hour is at Level of Service (LOS) D.

Background Traffic Without Project. The 2010 TIAR estimates approximately 1,445 single-family units and 173 multi-family units would be constructed in the vicinity by 2012. Between 2012 and 2020, about 1,600 single-family units have been planned in the area. The planned development projects include Castle and Cooke, Sunset Ridge, Kilohana Kai, Waikoloa Heights, Waikoloa Highlands and Lot 28. Commercial projects were not included in the count because it was felt that they would attract trips from within the Project rather than from outside the Project. The background traffic forecast without the Project shows high volumes traveling between Waikoloa Road and the southern leg of Queen Kaʻahumanu Highway.

Even without the Project, there will be deterioration in traffic conditions by 2012 (see TIAR-Table 13). The left turn off Waikoloa Road intersection shows a LOS F for the morning peak hour and a LOS F for northbound through traffic on Queen Kaʻahumanu Highway in the afternoon peak hour.

Additionally in 2012, the left-turn from Mauna Lani Drive for both morning and afternoon peak hours is predicted to be LOS F. The right-turn from Mauna Lani Drive indicates a LOS F for the afternoon peak hour.

In 2020, the Queen Kaʻahumanu Highway-Waikoloa Road intersection will experience further deteriorated traffic conditions without the Project (see TIAR-Table 14, page 42). The northbound through movement would have a LOS F for the morning and afternoon peak, and the southbound movement would have a LOS F for the afternoon peak hour.

At the Queen Kaʻahumanu Highway-Mauna Lani Drive intersection, the traffic conditions for the Mauna Lani Drive approach, without the Project, is projected to be LOS F for the morning and afternoon peak hours.

Potential Impacts and Mitigation

Phase I Project - Year 2012. The 2010 TIAR calculated the Project to generate 216 trips in the morning peak and 263 trips in the afternoon peak in the year 2012. With the Project, several intersections along Queen Kaʻahumanu Highway will experience LOS F (see TIAR-Table 15, page 43). These include the northbound through lane at Waikoloa Road intersection at afternoon peak hour; the left-turn from Waikoloa Road at morning peak hour; left-turn eastbound, through, and right-turn eastbound traffic at Mauna Lani Drive-new Project Access Road at morning and afternoon peak hours; and left-turn westbound at morning and afternoon peak hours from the new Project Access Road.

Project Build-out - Year 2020. Upon full build-out in 2020, the Project is projected to generate 1,738 trips in the morning peak and 3,078 trips in the afternoon peak. Because of the Project's proposed residential, commercial, retail, and mixed uses, it is expected that there will be a

reduction in the number of trips leaving the Project onto regional roads. In 2020, the Project is expected to generate 1,662 trips from outside the Project in morning peak and 2,504 trips in afternoon peak. By 2020, there will also be a higher diversion to the new northern Project road from Waikoloa Road by Waikoloa Village residents.

Certain intersection movements in 2020 will have congestion problems at full build-out (see TIAR-Table 16, page 44). The Project intersection with Mauna Lani Drive shows that eastbound and westbound side street approaches will have a LOS F for both morning and afternoon peak hours. Northbound left-turn traffic in the morning peak hour and southbound left turn traffic in the afternoon peak hour will experience a LOS F.

At the Waikoloa Road intersection on Queen Kaʻahumanu Highway, the northbound and southbound through movements will have a LOS F at both peak hours.

The new northern Access Road intersection will operate at acceptable levels of service in 2012 with two lanes and in 2020 with four lanes according to the TIAR.

Mitigation for Phase I in 2012 and Build-out in 2020. The 2010 TIAR recommends the following measures to mitigate the effects of the Project on traffic flow:

1. Add a right turn lane on Queen Kaʻahumanu Highway at Mauna Lani Drive northbound.
2. Add a right turn lane on Queen Kaʻahumanu Highway at the northern access to the Project in the northbound direction.
3. Install a traffic signal at the intersection of Queen Kaʻahumanu Highway and Mauna Lani Drive to coincide with the completion of the proposed Project's Phase I completion date. The Project/Mauna Lani Drive intersection should have three Project approach lanes, with lanes for left turns and through movements and a channelized right-turn lane.
4. Install a traffic signal at the intersection of Queen Kaʻahumanu Highway and the new north access roadway to the Project when it is opened to traffic flow in the year 2012. The northern access intersection should have two approach lanes with a lane for left turns and a channelized right-turn lane.
5. Comply with AASHTO Green Book and Hawaiʻi DOT standards in the design of the intersections.

In providing the projected traffic conditions at build-out, the TIAR assumed that all the above mitigation measures would be completed at the completion of Phase I and that, by the Project build-out, which is projected to be completed by 2020, an additional through lane would be added in each direction on Queen Kaʻahumanu Highway as part of the State's planned improvements to this corridor. Implementation of the above mitigation measures that are phased with the Project development, as described above, is projected to offset the Project-related traffic impacts and bring the level of service at the Project and Waikoloa Road intersections with Queen Ka'ahumanu Highway to acceptable levels.

New Project Road Intersection. The Applicant intends to construct a fully channelized and signalized intersection at the Queen Kaʻahumanu Highway-Mauna Lani Drive intersection in conjunction with construction of the Project's first phase.

Northern Access Road and Intersection. The Conceptual Master Plan shows a proposed Future Waikoloa Village Connector Road traversing the northwestern portion of the Property continuing mauka through the adjacent Bridge property to eventually connect to Hulu Street in Waikoloa Village.

The Applicant has been involved in negotiations with the County and Waikoloa Community representatives on the location of this northern access road. A decision on location and alignment of this second access road has not been made due to remaining technical and design questions. When the negotiations are completed, the Applicant can finalize the design plans and proceed to construct this road.

The intersection of Queen Kaʻahumanu Highway and the Project's northern access roadway will need to be signalized when warranted.

Further, should the State establish a fair-share program for a grade-separated interchange in this area that would affect and/or benefit this Project and the fair-share amount is determined prior to start of the Project, the Applicant would be willing to participate in the program.

4.7 NOISE

Existing Conditions

The existing noise environment within the project site consists of ambient noise levels resulting from wind and foliage, birds, and distant traffic and aircraft noise. The noise descriptor currently used by federal agencies to assess environmental noise is the Day-Night Average Sound Level (DNL or Ldn). The DNL values represent the average noise during a typical day of the year. Within the Project area, noise from vehicular traffic is most evident near the highway and probably contributes the most to noise levels, but noise levels at the project site are relatively low (between 45 and 50 DNL) due to the large setback distances from Queen Kaʻahumanu Highway. As a point of reference, DNL exposure levels of 55 or less are typical of quiet rural or suburban areas and DNL exposure levels of 65 are representative of densely developed urban areas and areas fronting high volume highways. The value of 65 DNL is also used as a federal regulatory threshold for determining the necessity for special noise abatement measures in applications where there is funding assistance from federal agencies, such as Federal Housing Administration, Housing and Urban Development (FHA/HUD).

A 1985 acoustic study has been updated by Y. Ebisu. The update, its findings, conclusions and recommendations are found in Appendix N.

Potential Impacts and Mitigation

Over the long term, Traffic noise levels are projected to increase along Queen Kaʻahumanu Highway by 4.1 to 4.3 DNL during the project development period (2009-2020) as a result of both Project and non-Project traffic. However, Project residents should not be impacted by traffic noise given the large setback distances from the highway. Likewise, other residential developments in the area are significantly set back from the highway and are not expected to be impacted by this increase in traffic noise. The dominant traffic noise sources within the project site could be the two planned access roads. Setbacks from the two new access roads within the project, the use of sound-attenuating berms, landscaping, or design measures can help to minimize the traffic noise impacts to noise sensitive properties along these two roads within the project.

Noise levels will increase in the short-term during construction of the infrastructure and, then intermittently, with construction of homes, commercial buildings, and golf course, however, construction noise levels from the project are not expected to exceed the existing traffic noise levels of approximately 60 DNL from the highway at the existing fire station. The other noise sensitive development outside the Project, within Waikoloa Village and Mauna Lani Resort, are at least a mile from the project site. Those likely to be most impacted by the construction related noise would be those new residents and visitors to the Project. To mitigate noise impacts during the construction period, compliance with State Department of Health (DOH) noise regulations will be enforced.

For the long-term operational control and mitigation, the design and siting of the public structures (clubhouse, commercial buildings) and the possible WWTP will take into account ways to minimize noise impacts. These include the proper siting of air conditioning units, exhaust fans, and the use of sound insulation and landscaping. The WWTP would be located away from sensitive residential areas and sited with significant buffer areas.

4.8 AIR QUALITY

Existing Conditions

An *Air Quality Study (Study)*, dated January 2010, was prepared for the Project by B.D. Neal and Associates (see Appendix O).

Air quality in the vicinity of the Project is affected by emissions from natural and agricultural sources. In addition, depending upon the prevailing wind direction, emissions from vehicles traversing Queen Kaʻahumanu Highway, a major arterial roadway abutting the Project, may be carried over the Project site.

Air quality is also affected by volcanic emissions that come from Kilauea Volcano located more than 50 miles from the Project site and which convert into particulate sulfate and produce a volcanic haze (vog) that frequently blankets North and South Kona. The amount of the emissions increased in 2008 with the opening of a new vent in Halemaʻumaʻu Crater at the summit of Kilauea. However, the impact of the emissions is felt primarily in South Kona and, to a lesser

degree, North Kona, and they reach South Kohala only during relatively infrequent periods of southerly winds. There is also the possibility that an eruption of Mauna Loa, which last saw activity in 1984, could produce additional emissions that could impact West Hawaiʻi.

There are no major industrial sources of air pollution in the project area. The nearest major industrial source of air pollution is the Hawaiʻi Electric Light Company's (HELCO) Keahole Power Plant, which is located about 20 miles to the south. Air pollution emissions from the Keahole Power Plant consist mostly of sulfur dioxides and oxides of nitrogen.

The State DOH operates a network of air quality monitoring stations throughout the State. Unfortunately, limited data is available for Hawaiʻi Island, and less for the South Kohala area. From the period of 2002 to 2006, the DOH operated an air quality monitoring station in the Kealakekua area, about 30 miles south of the Project site, where measurements for sulfur dioxide and particulate concentrations were taken. Monitoring of particulate matter was discontinued at this site during June 2000. Measurements of sulfur dioxide concentration at the DOH site were consistently low, with average concentrations of 8-13 $\mu g/m^3$, about 10-15 percent of the State and National standard. Annual average particulate concentrations for the year 2000 was 18 $\mu g/m^3$ or about 36 percent of the State and National standards. There were no violations of State or National standards during the 2000 monitoring period.

In terms of potential Project-generated impacts to air quality, increases in carbon monoxide levels from Project-generated vehicular traffic would be of potential concern, with the highest concentrations expected to be found at the Waikoloa Road and Mauna Lani Drive intersections with Queen Kaʻahumanu Highway. According to the *Air Quality Study*, the current (2009) highest estimated one-hour concentration of 3.2 $\mu g/m^3$ is projected to occur during the morning peak traffic period, at the intersection of Queen Kaʻahumanu Highway and Waikoloa Road intersection.

Potential Impacts and Mitigation

Short-term direct and indirect impacts on air quality could occur from project construction activities, both from fugitive dust caused by 1) vehicular movement and soil excavation, and 2) from exhaust emissions for the on-site construction equipment. Indirectly, there could also be short-term impacts from slow-moving construction equipment traveling to and from the project site, from a temporary increase in local traffic caused by commuting construction workers, or from the disruption of normal traffic flow caused by lane closures during the construction of intersection improvements along the highway.

Related to the potential for fugitive dust generation, State air pollution control regulations require that there be no visible fugitive dust emissions at the property line. A dust control plan will be implemented to ensure compliance with state regulations. The dust control plan will include watering active work areas, covering open-bodied trucks, and limiting the amount of grading to be performed at one time to 20 acres. Exhaust emissions can be mitigated by moving construction equipment and workers to and from the site and scheduling highway-related improvements during off-peak traffic hours.

Long-term impacts on air quality will come in the form of vehicular traffic emissions coming to and from the development. According to the Neal Study, at build-out at the Project, with projected traffic mitigation measures in place, the predicted highest concentration of carbon monoxide (6.9 $\mu g/m^3$) would occur during the morning peak period at the Mauna Lani Drive and Queen Kaʻahumanu Highway intersection. Projections of carbon monoxide concentration were calculated for all major intersections and other concentration at build-out were estimated to range between 2.6 and 6.0 $\mu g/m^3$. Peak-hour concentrations at all intersection were estimated to remain well within State and Federal standards. Additionally, the worst-case eight-hour carbon monoxide concentrations for the intersections of Mauna Lani Drive and Waikoloa Road and the highway were predicted to range from 1.6 and 1.9 $\mu g/m^3$, respectively, both within the State standard of 5 $\mu g/m^3$ and the Federal limit of 10 $\mu g/m^3$.

Indirect impacts on air quality would come primarily from the emissions generated by the utility company in supplying the project with electricity, and from the disposal of solid waste materials generated by the project. The Air Quality Study estimates the magnitude of these emissions to be relatively small, however, indirect emissions from the project electrical demands could be reduced somewhat by encouraging energy-saving features to be part of the project planning and individual building design, including use of solar water heaters and photovoltaics, use of natural ventilation and lighting, and use of insulation and landscaping to reduce indoor heat-gain. Conversely, reduction of Project-generated waste through development and participation in community wide recycling program can help to reduce the energy use and emissions generated for solid waste disposal. Additionally, there is the potential for impacts to air quality in the form of potential odors from the operation of the project WWTP, although with proper operation siting of the facility with appropriate buffer areas, the potential for odor-related impacts can be minimized.

While volcanic emissions of sulfur dioxide from Kilauea Volcano frequently blanket North and South Kona, and can cause eye and respiratory irritation in some individuals, air quality in Kohala is generally good, with the most noticeable degradation of air quality occurring when occasional southerly winds carry vog into the area.

4.9 VISUAL AND SCENIC RESOURCES

Existing Conditions

The Property is bounded by undeveloped properties to the north, south, and east, and the Queen Kaʻahumanu Highway on the makai side. The land has an average 7 percent slope from east to west (mauka to makai). The mauka end has a varying elevation of 700 feet above msl, dropping to 150 feet at the makai end. Looking to the east (mauka), there are views of portions of the foothills of Waimea, Kohala Mountain, Hualalai and Mauna Kea.

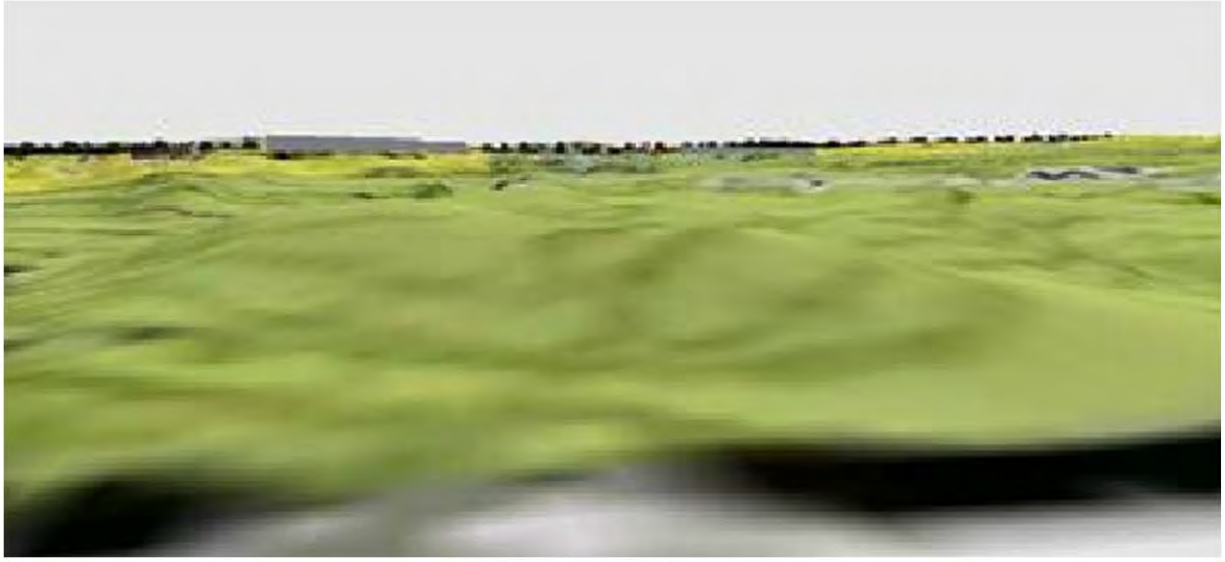
The Property is not specifically listed in the County General Plan as an example of an area of natural beauty in the District of South Kohala. However, the General Plan does state broadly that the viewplane along Queen Kaʻahumanu Highway looking mauka and makai is an example of natural beauty. The Property is adjacent and mauka of the Queen Kaʻahumanu Highway.

A buffer comprised of approximately 225 acres of the Property's frontage along Queen Kaʻahumanu Highway for an average width of 1,200 feet is required in Condition 3 of the State Land Use Commission Decision and Order of July 9, 1991. The purpose of the buffer area is to protect natural open space and scenic views.

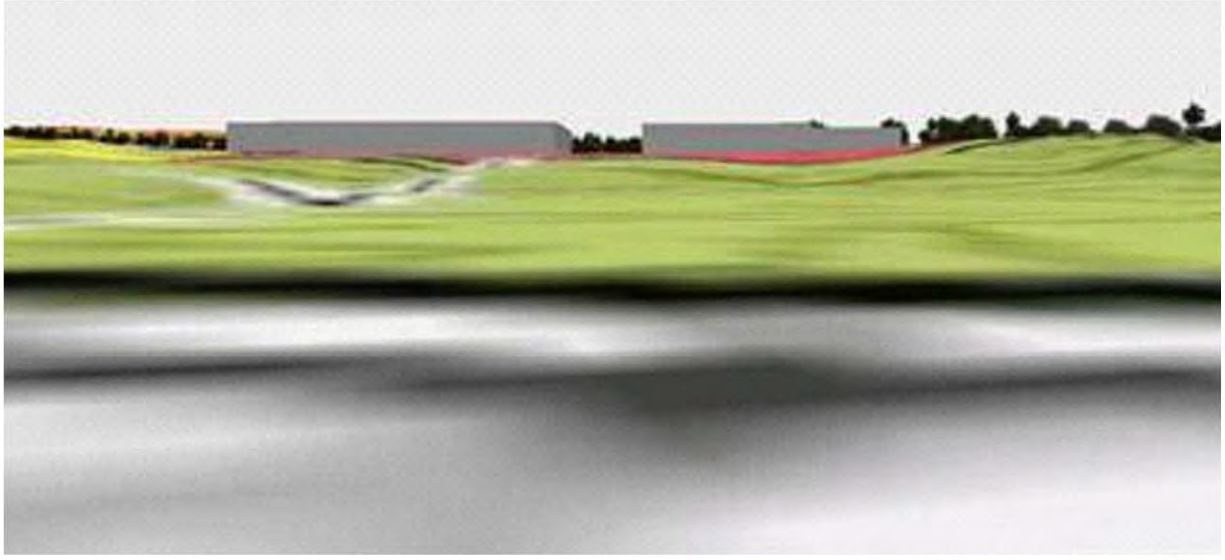
Potential Impacts and Mitigation

Development of the golf course and structures on the Property will generate some measure of visual impacts. The area will be transformed from a vacant, lava field to varying islands of vegetative oases and buildings. The objective of the Project is to minimize disruption to the arid, rocky landscape.

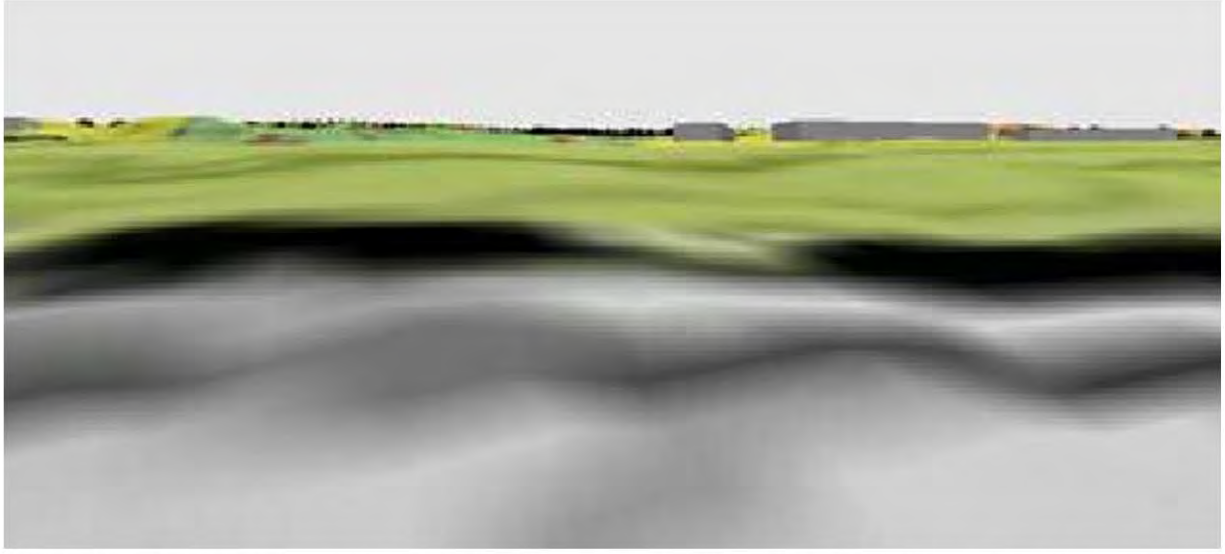
Visual simulations of the Project from three different locations along the highway are provided in Figure 15. These simulations reveal that the gentle rising topography of the Project site, the average 1,200-foot wide highway buffer, and the proposed low-rise structures in the Project will not significantly interfere with the mauka views along the highway. It should be noted that the visual simulations presented here provide a general sense of distance and scale of the structures and their relation to mauka (eastward) views from Queen Kaʻahumanu Highway. The structures themselves have yet to be designed, so the architectural and landscaping detail of these structures is not available. The visual impact of these structures can be further offset through the use of colors, materials, massing, and landscaping design of the structures.



Looking from Queen Ka'ahumanu Highway at Project's golf course, residences and buffer from northern end of Property.



Looking from Highway at Project's commercial, housing, and highway buffer from southern end of Property.



Looking from Queen Ka'ahumanu Highway at Project golf course, highway buffer and residences mid-property.

Source: The visual simulation images are provided by SSFM International.

Disclaimer: This graphic has been prepared for general planning purposes only.

PBR HAWAII & ASSOCIATES, INC.

05/03/2010

FIGURE 15

Visual Simulation

The Villages of 'Āina Le'a

DW 'AINA LE'A DEVELOPMENT, LLC

ISLAND OF HAWAII

To further mitigate the potential long-term visual impact of the development, the following mitigation measures are proposed:

Structure, Use and Design Standards. Structures and uses will be governed by a set of standards that will be made a part of a proposed Project District ordinance or will be regulated by the existing Zoning Code. These standards specified in Table 5 will address structure height, setbacks, and required parking as well as the type of uses permitted in the Project. It should be emphasized that structures in the Project would not exceed a 45-foot height limit.

Open Space Buffers. There will be an average 1,200-foot wide buffer from the Queen Kaʻahumanu Highway that is intended to impart a sense of open space in this area and minimize the potential visual impacts of the Project when viewed from the highway.

Preservation of Natural and Cultural Features. The ʻAuwaiakeakua Gulch and other drainageways would be incorporated into the Project. Furthermore, the major archaeological feature on the Property, which includes a rock shelter and ahu, will be preserved. A 5-acre preserve for the red *ʻilima* area is designated within a 16-acre nature park.

Landscaping. Landscaping would be introduced throughout the Project to soften views of the buildings. The County Planning Department's Landscape Rule No. 17, which encompasses location and environmentally consistent vegetation, will be followed.

4.10 SOCIO-ECONOMIC ENVIRONMENT

Hawaiʻi County is divided into nine geographical judicial districts, which differ in land area, population, and numerous socio-economic and environmental characteristics. Socio-economic data is drawn from census tracts/blocks within these nine divergent districts.

Hawaiʻi County contains nearly twice the area of the other Hawaiian Islands combined. The massive size can be problematic when delivering public services to the rural communities, but is a factor in creating a sense of the island's vast open spaces.

The Project lies between the Waikoloa and Mauna Lani Resort areas on the makai side and Waikoloa Village on the mauka side.

Development of the West Hawaiʻi resorts experienced rapid growth in the 1980s, and again from 2002 to 2006. Tourism in Hawaiʻi County contributes the largest proportion of jobs, and the South Kohala visitor industry dominates the economic landscape, with few employment opportunities in other industry sectors.

A *Socio-Economic Impact Assessment of The Villages of ʻĀina Leʻa,* dated August 2009, was prepared by SMS Researching and Marketing Services, Inc. (see Appendix P). As part of their assessment, SMS conducted several interviews with community representatives and leaders to identify potential social impacts of the project on the community. The information below is found in the SMS *Assessment* where extensive discussion on socio-economic context and impact occurs.

4.10.1 Population and Socio-Economic Characteristics

Existing Conditions

The Project is in the geographical district of South Kohala, which had a total resident population of 13,079 in 4,648 households in the year 2000. This accounts for about 10 percent of the County's population. South Kohala's population was projected to be 17,600 residents in 2009 of which about 4,000 were expected to be school-age children (5-17 years old).

The South Kohala population is divided almost equally between males and females. Twenty-four percent of the Kohala population are seniors compared to the County's 25 percent.

South Kohala residents have a median income of $71,548 and a per capita income of $31,808. This represents the highest median income and the second-highest per capita income in the County.

Potential Impacts and Mitigation

The SMS *Assessment* projects that the Project will potentially house up to 5,780 residents. If homes built on the Property have the same average household size as the rest of the County, this would represent a 44 percent increase over South Kohala's 2000 population.

As an inland community, the Project will probably not be a tourist-dominated community like Waikoloa and Mauna Lani Resorts. The *Assessment* predicts:

> In all likelihood, ʻĀina Leʻa will develop into a diverse community whose members work throughout the region, from Kamuela to Kailua-Kona, both in and out of the visitor industry. They will be the new residents of the Waikoloa region as perceived by Hawaiʻi County planners two decades ago. As such, ʻĀina Leʻa will probably develop a character somewhere between that of Mauna Lani and Waikoloa Village. The community will have a more defined town center and will offer a wide array of commercial, recreational, and public services.

The Project will impact the social character of the region, particularly for nearby Waikoloa residents. Public services such as safety, security, education, and health services would be provided commensurate with the new development to mitigate negative impacts that might be generated by the Project. These public services and facilities include a community center, school site, parks for the Project and the region, and planned construction of a new mauka-makai road connecting Waikoloa Village to Queen Kaʻahumanu Highway. These services or facilities are discussed in applicable sections of this EIS.

4.10.2 Housing

Existing Conditions

South Kohala is made up of two larger villages, Waimea and Waikoloa, the port town of Kawaihae and the rural areas in between. There are also small resident populations within the nearby resorts (Waikoloa, Mauna Lani, Hapuna, and Mauna Kea), although the majority of their populations is comprised of transient visitors and those who own property but reside there for only short periods of the year.

Development of the Waikoloa Village started in the early 1970s concurrent with the opening of the Waikoloa Village Golf Course. By the year 2000, Waikoloa Village had grown to house over 4,800 residents in about 1,750 homes. It is the only village of its size in the region for at least 15 miles. In part because it is a relatively new community and because of its remote location, Waikoloa Village is somewhat isolated with respect to access to public services.

Waimea is located approximately 21 miles north of the ʻĀina Leʻa site. It contains headquarters for Parker Ranch and for two of the observatories on Mauna Kea. Unlike the plantation towns, which cluster around mills and nearby commercial areas, Waimea spreads along its major roadways. As a ranch town, Waimea remained relatively small until the early 1980s, at which time the population grew quickly from 1,179 to approximately 8,600 residents in 2006. The population of Waimea has continued to grow in the current decade but at a slower pace. Waimea is the center of retail, health, and government facilities for the surrounding region.

Potential Impacts and Mitigation

At build-out, the Project will provide up to 2,462 residential units, 20 percent of which would be priced in the "affordable" range under the guidelines of the County's affordable housing policy. Workforce housing units are also contemplated to alleviate housing shortage for construction laborers and Project workers. A development of this scale will impact the development pattern of the area, providing a mix of housing types that would generally be of a character between that found at Mauna Lani Resort and Waikoloa Village, but with a more defined town core and with a broader range of commercial and recreational amenities and public services.

Overall, the Project will provide a spectrum of housing opportunities to satisfy some of the housing preferences and needs of existing and future residents of the region. In response to the community needs and requirements of the SLUC approvals, the initial development will consist of 385 affordable housing units in a town-home configuration.

4.10.3 Social Context

Existing Conditions

The Villages of ʻĀina Leʻa is bordered on its makai side by Queen Kaʻahumanu Highway and on the mauka side by Waikoloa Village. Between those two borders, it extends from the entrance of the Mauna Lani Resort at the south to the area mauka of Puakō at the north.

Located makai of the highway and along the beach, Mauna Lani is comprised of predominately transient visitor accommodations and residential areas, most of which are utilized by property owners who reside there for only part of the year. Waikoloa Village is a predominately middle-class residential community developed principally over the last two decades. ʻĀina Leʻa is expected to be a complex and mixed community linking these two existing areas.

Potential Impacts and Mitigation

The ʻĀina Leʻa project will potentially be one of the County's largest single developments, eventually housing as many as 5,780 people and serving the residents and surrounding area with commercial centers, a civic center, a community center and a range of recreational amenities. As such, there is little question that the development will impact the people who live and work in the area and those who eventually work and reside within the project itself.

As part of its Assessment, SMS notes that the residents of the Hawaiʻi County and the Project area have expressed concern about the pace of development in their communities and its effect on local infrastructure. SMS notes that this same opinion was expressed repeatedly in interviews conducted with community leaders and public officials and has been voiced at community meetings throughout the Island, as well as within numerous public opinion surveys. More specifically, residents of the area identified three perceived community needs: 1) a secondary access road for Waikoloa Village, 2) a community center, and 3) better access to public services, primarily those pertaining to public safety, namely police and fire protection, and emergency medical services. Others expressed the need for additional commercial and light-industrial services in the area. The most critical problems expressed by area residents were the lack of affordable housing and rising traffic congestion.

As noted above, both issues of housing and traffic congestion are addressed as part of the initial phase of development with the construction of 385 affordable housing units and broad array of roadway and other improvements aimed at minimizing the potential traffic related impacts and improving traffic circulation in the area. Additionally, the commercial village and mixed-use core, portions of which are planned as part of the initial phases of development, are expected to add to the range of commercial and public service opportunities in the area.

4.10.4 Employment

Existing Conditions

The leisure and hospitality industry in Hawai'i County accounts for the largest portion of jobs; 22 percent, followed by government, which accounts for 20 percent. County officials believe that diversifying the economy is crucial to the economic health of the County and have been working to accomplish that objective. In fact, since the early 1990s up until 2007, Hawai'i County has witnessed an annual job growth in virtually every industry.

Employment countywide has fluctuated widely over the last decades, as reflected by the County unemployment rates, which ranged from 4.0 percent in 1990, a high of 10.8 in 1994 and a low of

2.8 percent in 2005. More recently, with the current economic downturn, the County unemployment rate has risen to 10.4 percent, according the Bureau of Labor Statistics.

Potential Impacts and Mitigation

Direct workforce is projected to be 8,054 person-years of construction-related employment as listed in Table 12 below.

Table 12
Construction Employment

JOB TYPES	PERSON-YEARS OF EMPLOYMENT
Direct Employment	8,054
Indirect & Induced Employment	9,189
Subtotal	17,243
On-island total	14,567

Source: Socio-Economic Impact Assessment, SMS Research & Marketing

The *SMS Assessment* projected that The Villages would support 17,243 indirect and induced person-years of employment, that is, the additional jobs created both indirectly through construction-related subcontractors and that are induced from retail-service jobs generated from construction worker spending. Direct construction earnings over the first nine years of the project are projected to total $1.23 billion (2009 dollars). Cumulative indirect and induced earnings are anticipated to be $550.8 million and $581.9 million, respectively. Further, the SMS Assessment notes that construction spending will have a positive impact on the economy by creating much-needed jobs and spending in related industries.

4.10.5 Economic Factors and Government Revenues

Existing Conditions

From the early 1980s to 1990, the State's economy grew quickly. In the 1990s that growth began to stagnate and the first seven years of the last decade witnessed very slow growth. By 2000, the State economy had returned to a healthier and more stable growth rate and in 2007, the State's unemployment rate increased by 1.4 percent. There was a decline in job growth in 2009 and experts are predicting an upward recovery period during 2010 and a stabilization of the 2008 growth rate by 2012.

The visitor industry has been the backbone of both the State and Hawaiʻi County's economic growth. Visitor arrivals and hotel occupancy rates have risen steadily from the beginning of the decade to 2005 and have remained steady up to the end of 2007. However, the number of average visitors across the State dropped by 10.6 percent in 2008. In addition, the number of visitors that visited the Big Island dropped by 18.4 percent, from 2007 to 2008. Hawaiʻi County's share of the statewide visitor count also declined slightly in the past two years, during which there was a 1.8 percent decrease in visitor arrivals.

The South Kohala visitor plant is the Big Island's most valuable travel infrastructure and has played a leading role in the industry growth and the local Kohala economy over the past decade.

Potential Impacts and Mitigation

The Project will have a significant positive impact on state and county government revenues, employment opportunities, and personal income. Total construction costs for the Project are estimated to be in the order of $5.3 billion. This level of construction will generate $196.5 million in direct state tax revenues according to the *SMS Assessment.* Indirect and induced impact of the Project will result in $233.3 million in state tax revenues. The SMS *Assessment* projects that a total $429.8 million in direct and indirect State taxes will be produced by the Project.

In addition, the estimated new homes within Project are projected to generate approximately $12.8 million in new County property tax revenues.[1] The property values that were part of the County property tax projections were based on nearby Waikoloa Village homes and units and, whereas the property values of the Project homes are expected to be higher than the surrounding Waikoloa Village homes, it is likely that property taxes from the Project are likely to be higher than the amount provided here.

In addition, an estimated $102 million in general excise taxes would be produced from the sales of homes, in addition to about $74 million in construction workers' income taxes that is expected be generated to the State over the period of the Project development.

4.11 INFRASTRUCTURE AND UTILITIES

4.11.1 Water System

Existing Conditions

There is no County water system currently servicing the Project site.

The Project will receive its domestic water from the County's South Kohala system via infrastructure improvements constructed by the Applicant pursuant to a Water Development Agreement (see Appendix C). The Agreement obligates the Applicant (successor to Bridge) to develop, construct and/or install up to four wells at the ʻOuli Well Field, which includes the existing well (State No. 6046-01). The initial construction increment would include development and outfitting of three wells–the existing well and two new wells.

[1]Estimates are based on the Project's market study estimates of potential unit sizing and pricing, in combination with the value per square feet of neighboring Waikoloa Village homes applied to the different sized units.

Potable water from the ʻOuli wells would be added to the Lalamilo component of DWS' South Kohala system, which would enable the Applicant to draw potable water from that system. The Agreement requires, at no cost to the County, the installation of pumps, transmission lines, storage tanks and all other necessary improvements to enable delivery of water from the ʻOuli wells into DWS' existing system in the South Kohala coastal area, which will be conveyed to the County upon completion. The County will be allocated 20 percent of the combined capacity of three wells, excluding the standby well. The maximum daily supply available to the Applicant would be from 2.4 to 2.9 mgd. Using DWS design standards, this is equivalent to an average daily supply of 1.61 to 1.96 mgd.

Initially, prior to the development of the ʻOuli wells, the Hawaiʻi Water Service Company is willing to provide temporary potable water service for the initial 432 town house units, including the 385 affordable units, under an agreement to be approved by the State Public Utilities Commission. Water transmission from the Waikoloa water system will be provided via a 12-inch water line connection to the system at Hulu Street within a 30-foot water utility easement that extends through the Waikoloa Village Association and adjoining "Bridge" lands. The improvements will include the construction of additional storage tanks at the approximately 620-foot elevation.

Non-potable water required to irrigate the project golf course and roadways, estimated to be approximately 0.54 mgd for The Villages project, would be provided by onsite brackish wells and reclaimed domestic wastewater.

Potential Impacts and Mitigation

An *Assessment of the Potential Impact on Water Resources of the Development of the ʻĀina Leʻa Village Project* dated July 2009 by Tom Nance Water Resource Engineering estimates potable water use demand for the Project to be about 1.32 mgd with a peak-hour demand of about 4.0 mgd (see Appendix F).

Based on the agreement with the County Department of Water Supply (DWS), ʻĀina Leʻa to develop up to four wells in the ʻOuli parcel, one of which will serve as a back-up well, and related reservoir, storage, and transmission improvement in the ʻOuli corridor that would be integrated as part of the DWS South Kohala System. According to the agreement, 20 percent of the capacity of remaining three wells will be reserved for the DWS. In addition to meeting the full needs of the proposed project, development of the four wells and the related improvements within the ʻOuli parcel will broaden and enhance the County water system in the area, bringing additional resources to meet the County demands in the area with no cost to the County.

According to the *Assessment*, the ground water resources at ʻOuli should be adequate to meet the potable water demand of the proposed project. A more comprehensive discussion of the potential impacts and proposed mitigation measures is found in Section 3.5 of this EIS relating to Hydrology and in Appendix F.

As noted above, the irrigation water for the project would be provided from a combination of on-site brackish wells and reclaimed wastewater. The Nance *Assessment* notes that the cumulative

impacts on the demands for water resources by existing, planned and proposed projects in the project area will require a coordinated effort on the part of stakeholders, government and communities to solve the region's known water challenges. The Applicant has committed to work with government, landowners, and the community towards this end.

As noted in the DOH's EISPN comment letter dated January 7, 2008, the construction of new potable wells, storage and transmission systems connecting to the County water system must comply with Hawaiʻi Administrative Rule §11-20-29 entitled "Rules Relating to Potable Water Systems." Pursuant to the rules, an engineering report would be commissioned to identify potential sources of contamination and evaluate measures to reduce or eliminate the potential for contamination. In meeting this requirement, a source water assessment and protection plan will be prepared for DOH approval.

To reduce the amount of draw to available water resources, it is proposed that a combination of brackish water and treated wastewater effluent be used to irrigate golf courses and landscaped areas. Care will be taken in the design and operation of the potable and non-potable systems to prevent cross-connection and the possibility of backflow from the non-potable system to the potable system. Full compliance with HAR §11-21 relating to "Cross Connection and Backflow Control" will be met.

4.11.2 Wastewater

Existing Conditions

There is no County wastewater facility in this region.

Communities in this area are served by private wastewater treatment plants or individual wastewater systems (IWS), such as cesspools or septic tanks. Wastewater treatment of Waikoloa Village's multi-family, commercial, and institutional uses are performed by two private WWTPs mauka of the Project site–the ʻAuwaiakeakua WWTP and the Kamakoa WWTP. Individual family residences are served by IWSs. Mauna Lani Resort's effluent is treated at its private WWTP makai of the Project site. Homes in Puakō are served by IWSs.

The DOH states in its January 7, 2008, EISPN comment letter that the project is located in both the Non-Critical Wastewater Disposal Area and Five-Acre Lot Exception Area.

Potential Impacts and Mitigation

The construction of a private WWTP for the Project will not impact the County's sewerage system as no municipal system or sewage line services the area. The Applicant is proposing to construct a private WWTP on approximately 10 acres of land that is under the control of the Applicant, near the southwestern boundary of the Project boundary.

According to the *Preliminary Engineering Report* dated July 2009 prepared by SSFM International, the Project will generate an estimated average wastewater flow of 1.23mgd. Table 13 below provides the projected daily usage by land use.

Table 13
Projected Wastewater Flows by Land Use

Land Use	No. of Units	Per-capita / Unit	Estimated Population	GPD per person	Est. Ave. Wastewater Flow (GPD)
Single Family	790	4	3,160	112	353,920
Multi-Family	1,047	4	4,188	112	469,000
Mixed Uses	125	4	500	112	280,000
Affordable Housing	500	4	1,540	112	123,200
Commercial	36 ac	140/cap/ac	5,040	112	5,040
Golf Course C.H.	4 ac	200/cap/ac	800	25	800
				TOTAL	**1,232,000**

Proposed Wastewater Treatment Plant. The Applicant is planning to construct a private WWTP on approximately 10 acres of land on the adjacent Parcel 40 to the south over which the Applicant has control by Amended Agreement, as shown on the Conceptual Master Plan (see Figure 3). Initially, a "packaged" WWTP is planned in the area mauka of the planned commercial village and would be sized to serve the initial 385 affordable townhouse units (see Phase 1 WWTP in Figure C-001, "Civil Phase Development Plan," Appendix D2). Design of this initial treatment facility can be "compartmentalized" so as to be potentially relocated and integrated as part of the permanent project WWTP. Both the temporary and permanent WWTPs would use a membrane bioreactor process.

The Project's proposed WWTP would utilize a membrane bioreactor system to treat wastewater at an R-1 tertiary quality level to permit effluent reuse for golf course and landscape irrigation and future construction dust control. The combination membrane and biological process filters out suspended solids and pollutants, including nitrogen, phosphorous, and microorganisms such as viruses, bacteria and parasitic cysts. Some advantages of the membrane bioreactor system over a conventional system are its more robust biological process, superb water quality, and smaller facility footprint. The projected design average flow for the Project is estimated to be 1.23 mgd, with an estimated maximum flow rate of 5.8 million gallons or 6.5 mg with estimated infiltration/inflow included. The WWTP would be designed for an average dry weather flow liquid capacity of about 2.0 mgd, and designed to handle a peak flow rate of 10.5 mg (see Appendix D).

The permanent WWTP will be installed mauka of the Highway Buffer and south of the main project access road, as shown in the Conceptual Master Plan, Figure 3, within a 10-acre site in order to provide for ample buffers from other uses. The WWTP will be properly sited and landscaped to reduce visibility from the highway. The location of the WWTP some distance from the property lines coupled with landscaping and technological advances will mitigate potential concerns over noise and potential odors.

The collection system will consist of a network of gravity sewers, force mains, and sewage pumping stations all within sewer and roadway easements. According to the Preliminary Engineering Report (see Appendix D), pipe sizes will likely range from 8-inch to 12-inch mains and 4-inch to 6-inch sewer laterals. The onsite wastewater collection system is proposed to be dedicated to the County, and therefore design and construction of the collection system will be in accordance with County of Hawaiʻi standards.

After the secondary treatment, effluent will be treated within the plant's water recycling section. The treated effluent will be used to irrigate roadside landscaping and the golf course, thereby helping to reduce the demands on the brackish water resources in the area. The WWTP will treat its effluent at an R-1 level, which will allow reuse and will avoid potential adverse impacts to the down-gradient MLR golf course irrigation wells.

Because of the technology of the membrane bioreactor system, the liquid sludge produced by the WWTP will be minimal. What liquid sludge is produced would be dried and either recycled with compost or shipped to an appropriate disposal facility in a manner meeting Department of Environmental Management and State Department of Health regulations and requirements.

The Project's WWTP will comply with the requirements in DOH HAR §11-62 relating to "Wastewater Systems." The DOH notes in its EISPN comment letter dated January 7, 2008, that injection wells used for the subsurface disposal of wastewater, sewage effluent, or surface runoff are subject to HAR §11-23 relating to "Underground Injection Control." The Project will comply with the environmental regulations and UIC permitting under this rule.

4.11.3 Solid Waste

Existing Conditions

The County does not provide waste collection services. Private refuse companies haul about 50 percent of the waste generated by residents to the County landfills. The rest of the waste is self-hauled and deposited at County transfer stations. The County has a landfill in Hilo serving East Hawaiʻi and a landfill in Puʻuanahulu serving West Hawaiʻi.

Private haulers servicing the Project's residents and commercial activities would use the Puʻuanahulu Landfill, which is located about four miles away. Approximately 385 tons of trash per day is accepted from commercial haulers and individuals. There is more than 12 million cubic yards of permitted air space at this landfill.

The Puakō transfer station is located about two miles from the Project site. However, while the transfer station has been improved with perimeter fencing and concrete pads for recycling bins, it is nearing its potential capacity.

Potential Impacts and Mitigation

According to a *Preliminary Engineering Report* dated July 2009 prepared by SSFM International (see Appendix D), the Project would generate about 10 tons of trash per day based on an average

generation rate of 2.5 pounds per capita per day. This per capita figure was based on a study of Kailua, Puakō, and Waimea, which showed the average daily pounds of trash generated were 2.09, 2.25, and 2.42 pounds per day, respectively.

Curbside pickup of refuse will be provided throughout the Project, which will include space for multiple bin pickup for recycling purposes. Short-term impacts of Project construction waste due to site preparation and project construction will be mitigated by requiring contractors to remove all debris from the Property for disposal at the nearby landfill.

The generation of 10 tons of trash per day at full build-out will impact the County's nearest Puakō transfer station and the nearby Puʻuanahulu landfill. Residential refuse generated by the Project will either be collected by a private hauler, who will use the landfill, or be taken by individual households to the Puakō transfer station. Commercial and retail establishments will use private haulers who will deposit the refuse at the landfill. While it is likely that private haulers will be used by many of the Project residents, it is anticipated that local transfer stations will experience an increase in trash volume over time.

The Applicant is already required by a condition of the existing zoning ordinance to prepare a solid waste management plan for review and approval of the Department of Public Works. The plan, in part, will address education and availability of reuse and recycling as methods of reducing a person's contribution to the waste stream. In addition, the Applicant is required by zoning ordinance to pay its fair share contribution for solid waste facilities. These mitigation measures combined with the heightened awareness and concern for our island environment by the community will help to mitigate impacts of the Project on the County's solid waste facilities.

4.11.4 Drainage

Existing Conditions

Regional and Off-Site Drainage

The Property is located in the Pohakuloa regional watershed, which has a tributary area of about 507 square miles. Only a fraction of the Pohakuloa watershed drains to the Project site. Within this regional watershed, there are four major stream watersheds that enter the larger 3,000 acre property: Puakō Gulch No. 4, ʻAuwaiakeakua Gulch-North Tributary, ʻAuwaiakeakua Gulch, and an unnamed gulch called "South Stream" for purposes of this EIS. The North Tributary joins with the main ʻAuwaiakeakua Gulch forming three streams that discharge along the western boundary of the Project site at the highway. Six minor off-site watersheds also drain to the site. There are a total of eight culverts that drain away from the larger 3,000-acre site, five of which drain the 1,060-acre Urban area. These culverts discharge to streams makai of the highway flowing to the ocean through the Puakō Road floodplain.

Focusing on the undeveloped 1,060-acre Urban area, the current (undeveloped) watershed flows at Queen Kaʻahumanu Highway are calculated at 404 cubic feet per second (cfs) for 50-year flows. The on-site streams and channels are few and generally undefined.

Potential Impacts and Mitigation

In the short-term, grading, grubbing and stockpiling work on the Project will involve land disturbing activities that could result in soil erosion, some removal of existing vegetation, and changes to existing ground conditions, including relocating, removing, stockpiling and soil replacement. The contractor will be required to perform all grading, grubbing and stockpiling operations in conformance with applicable provisions of the County Code and Chapter 55 (Water Pollution Control) of Title 11, Administrative Rules, State Department of Health, and any subsequent amendments to these requirements. Additionally, an Erosion Control Plan will be required by the County prior to issuance of grading approvals, in compliance with Chapter 10 of the Hawaiʻi County Code, "Erosion and Sedimentation Control."

For all grading and grubbing operations, soil erosion prevention and fugitive dust protection mitigation will be practiced through the implementation of best management practices that would include but not be limited to:

- Implementation measures such as limiting grading to not more than 20 acres at a time until dust and erosion control measure are provided
- Minimizing the time graded areas are open
- Grading, as much as possible, parallel to slope contours, as opposed to grading up and down slopes
- Retaining existing vegetation until just prior to the start of construction in the area
- Construction of drainage control features such as erosion control fences
- Using temporary area sprinklers in non-active construction areas when existing vegetation has been removed
- Using water trucks during construction period for dust control
- Using temporary berms and cut-off ditches for control of erosion
- Use of watering or other erosion control methods on graded areas in anticipation of weekends and holidays
- Implementing the use of sedimentation basins
- Sodding and planting cut and fill slopes that are subject to erosion
- Using slope stabilization materials when needed

Over the long-term development, the Project will result in the construction of impermeable surfaces that potentially generate storm water runoff, such as buildings, roads, and parking areas. Road and building pad construction will also change existing on-site drainage patterns.

The County of Hawaiʻi requires that, for new developments, the project retain any increase in peak flow and runoff volume for up to the 50-year storm. That is, for an undeveloped site, the storm water discharge from the property for up to the 50-year storm event cannot exceed that which occurred prior to development.

To meet this requirement, a July 2009 *Master Drainage Report for The Villages of ʻĀina Leʻa* was prepared by SSFM International for the purposes of 1) identifying and quantifying existing and future conditions and 2) planning drainage facilities to ensure that storm water runoff rates and volumes leaving the site are at or below the pre-existing conditions. A copy of the SSFM Drainage Report *(Report*) is included for reference as Appendix E of this EIS.

The *Report* calculates an increase in the 50-year peak storm flows from the planned build-out of the Project to be in the order of 1,552 cubic feet per second (cfs).

To mitigate long-term impacts associated with full build-out conditions, on-site drainage facilities will be designed for the 10-year or 50-year storm as required by the County. These facilities would include, but are not limited to, drywells, culverts, storm drains, catch basins, and roadway swales. The Project storm water conveyance systems would discharge into the golf course and/or the Highway Buffer area makai of the Project. The master planned drainage facilities would also include retention facilities for the full development. These retention facilities would be constructed within each pre-development land-use area in order to mitigate potential increases to the flow and volume of runoff from each land-use area.

The Project will comply with the requirements of Chapter 27, HCC, relating to Floodplain Management. Broadly, this means that the Project will not encroach on the 100-year flood plain and development will be elevated above the 100-year base flood elevation. Should there be any temporary crossings of drainage channels, the modifications will be requested by the contractor and a detailed design prepared and submitted to the County for its review and approval. There are projected to be eight crossings of major streams at build-out. The crossing (culvert) structures would be designed as part of the engineering in conjunction with the planning and design of each phase or increment of development. All improvements related to stream crossings will meet the permitting requirements pertaining to compliance with Sections 404 and 401 of the Clean Water Act, as administered by the U.S. Army Corps of Engineers and State Department of Health, respectively.

To mitigate the concern over storm water pollutants and its potential impact on water quality, retention and infiltration using open basins and/or drywells is proposed, and all developed areas of the site will be designed to drain into detention basins or drywells. The retention portion of the detention basins provides an effective storm water treatment. That is, the use of vegetated swales, infiltration facilities, drywells, detention/retention ponds, and other filtering systems, as proposed in the Drainage Master Plan, will help to control and reduce pollutants. Also, as noted in Section 3.5, drainage from the Project is not anticipated to impact the quality of the aquifer as brackish water already underlies the Project area.

It should be noted that soil erosion is an ongoing process that is taking place in most undeveloped areas, such as the Project site. According to the SSFM *Report*, the soil erosion potential at the Project Site is estimated to decrease by about 12 percent, or and estimated 15,342 tons per year, as a result of the reduction of erodible surfaces, planting of temporary grasses, reduction of the length and slope of overland flow, construction of the drainage system and the increase in landscaped area that, in turn, reduces the amount of bare ground.

4.11.5 Electrical and Communication Systems

Existing Conditions

There is currently no permanent power at the Project site.

The Hawaiʻi Electric Light Company (HELCO) supplies electricity to approximately 79,000 customers in the County via a distribution system consisting of a series of transmission lines and transmission/distribution substations. HELCO's power generation system presently has a total firm capacity of 276.4 megawatts (MW). Electricity in the County is generated by HELCO power plants and by independent power producers, Puna Geothermal Venture and Hamakua Energy Partners, from whom HELCO purchases a portion of its power. Wind and hydroelectric also provide HELCO with energy for its system. Through the State's Integrated Resource Planning process, HELCO has identified other alternative and renewable energy resources, such as photovoltaic, solar thermal, wind, geothermal, and hydro systems for meeting the near- and long-term electrical energy needs of the County.

Electrical power to serve the Project would be brought from an existing HELCO substation (Mauna Lani substation) located near the intersection of Hoʻohana Street and Puakō Beach Drive with Queen Kaʻahumanu Highway. Power would be transmitted on overhead lines to the site via a planned electrical utility corridor that extends mauka from the substation and then south to the Project site, within the lands owned by the Waikoloa Village Association, makai of Waikoloa Village. A map showing the route of the proposed utility easements is shown in the Figure 4. While the transmission lines to the Project will be overhead lines, within the Project the balance of the lines would be placed underground.

Telephone services will be available to the Project through the use of HELCO's poles or by sharing direct burial trenches and concrete encased ducts for electrical lines.

Potential Impacts and Mitigation

The projected electrical demand for the Project has been estimated to be approximately 1.3 megawatts for Phase I and just over 5 megawatts at full build-out.

Initially, the Project will receive its power via the existing Mauna Lani substation. However, the Mauna Lani substation will be inadequate to serve the full Project development. At the appropriate time, the Applicant will construct a new substation along the utility corridor, approximately 250 feet mauka of the Project site, and transfer the substation facility to HELCO. The planning, timing, design and location of the new substation will be closely coordinated with HELCO. In that the proposed utility corridor for overhead power transmission is located approximately a mile mauka of Queen Kaʻahumanu Highway, and far removed from public roadways and residential areas of Waikoloa Village, and the balance of the power lines within the project would be placed underground, the visual impact of these lines when viewed from pubic areas is expected to be negligible.

Where appropriate, a broad range of energy-efficient measures will be encouraged in the design and operation of the Project, including the analysis of siting buildings to maximize the use of natural lighting and ventilation, encouraging the use of solar photovoltaic and water heating systems and energy conservation measures, installing water-conserving toilets and fixtures, and use of mulching to reduce evaporation. Other conservation measures will include the use of "Energy Star" appliances throughout; insulated walls, ceilings, and windows; and water-conserving landscaping and irrigation practices. In addition, the Applicant plans to install photovoltaic panel arrays in the area of the affordable town homes and implement an electric recharge program for electric vehicles within the Project.

No significant off-site improvements are required by Oceanic Time-Warner for television cable connections and mitigation measures are not required. A connection to the existing cable system on the makai side of the highway near Mauna Lani Drive, if required, would be made in conjunction with planned intersection improvements in this area so as not to cause further traffic disruption. The Project will comply with the rules and regulations of the utility companies.

4.12 Public Facilities and Services

4.12.1 Recreation

Existing Conditions

There are a myriad of public recreational activities in the region. These include small boat harbors, hiking trails, beaches, state and county parks, and archaeological and cultural activities, many within 10 miles of the Property.

The closest community facilities are located in Waikoloa Village with a four-acre neighborhood park and a recently constructed community park next to Waikoloa Elementary School. A 12-acre park is also planned within in the County's Kamakoa affordable housing project in the Waikoloa Village, although development on the project has slowed in the last year and it is uncertain when the community facilities there will be completed.

District-wide recreation facilities include the County's Waimea Park with a community center, playfields, tennis courts and a playground. Also within Waimea, the Waimea Elementary and Intermediate School has a playground and gymnasium used during school hours. After school hours, the County jointly operates the recreational facilities. Additionally, a 25-acre district park is proposed by Parker Ranch for meeting a requirement of its zoning ordinance. Site selection is currently underway.

The State's Hapuna Beach State Recreation Area and the County's Samuel Spencer Beach Park are major beach parks with water-oriented recreation and overnight cabins or campsites, respectively. Public access and parking are also available to the beaches in the area at Anaehoʻomalu, Mauna Lani, and Mauna Kea.

There is a small boat harbor at Kawaihae Harbor and a small boat ramp at Puakō.

Potential Impacts and Mitigation

The Project, along with other developments either proposed or underway in the area, will result in an increased need for recreational areas and facilities and demand for shoreline access. However, additional recreational facilities are planned as part of the Project, and additional tax revenues the Project will provide to the State and County can help fund the expansion of existing recreational facilities and management programs in the region. The Project proposes diverse recreational amenities on-site for its residents and guests such as bike/jogging trails, a golf course, swimming pools, tennis courts, and picnic/barbecue areas. Further, while a 10-acre active park is required by the existing zoning ordinance, the Applicant has offered to expand that to 16 acres. A 16-acre passive park is also planned to mitigate impacts the Project may have on existing park and recreational resources. The parks will be maintained by the Applicant or a successor homeowner association, unless and until the County exercises the option of ownership.

The Applicant has also been in discussion with the Department of Parks and Recreation to provide land for a community center, which if accepted would be located adjacent to the planned 16-acre active park in the area just south of the main access road and mauka of the Highway Buffer area, as indicated in the Conceptual Master Plan, Figure 3.

While the project is expected to impact the local recreational facilities, it also includes a broad range of recreational elements aimed primarily at the project residents but also adding to the public recreational facilities of the region, thereby mitigating this impact to a large degree.

4.12.2 Fire and Emergency Protective Services

Existing Conditions

The South Kohala Fire Station, directly across from the Project on the makai side of the Queen Kaʻahumanu Highway, provides full-time fire, emergency medical, hazardous material, and aero-medical services. It is staffed by an average of six full-time fire personnel. Back-up emergency response is provided by Waikoloa Fire Station and Waimea Fire Station. Waikoloa Fire Station is a full-service fire station with five FTE personnel, and Waimea Fire Station is the region's main fire station about 30 minutes away. With the added support of the volunteer firemen in the region, the area is currently adequately served.

Potential Impacts and Mitigation

While the region appears to be adequately served by the existing fire and emergency service, these facilities will need to be expanded in order to handle the planned 2,230 additional homes planned at ʻĀina Leʻa. The new County property taxes generated from the development will aid in this expansion. The Project's access roads and the water supply will be designed in compliance with County regulations and Uniform Fire Code requirements. The Applicant, as required by zoning approvals, will also be providing "fair-share" contributions for the expansion of fire-related facilities. Additionally, the Applicant has offered to provide areas within the commercial portion of the Project for additional fire and EMS units, as needed.

4.12.3 Police Services

The Waimea Police Station provides the first response to the South Kohala region with an area coverage of 688 square miles–an area larger than the island of Oahu. Waimea Police Station is staffed by 32 officers, but is currently four to five officers short of a full complement.

The Waimea police station is located approximately 18 miles from the Project. A police substation is also located at the South Kohala Fire Station, and is often referred to as the "Mauna Lani" substation. Supplemental backup comes from Kapaʻau in North Kohala or from Kailua-Kona with a response time of about 45 minutes.

Potential Impacts and Mitigation

The existing police resources serving the area will need to be expanded to meet the needs of the planned Project development. Community leaders who were interviewed in the course of the SMS *Assessment* indicated that they were hopeful that the development at ʻĀina Leʻa would lead to the full staffing of the South Kohala substation on a permanent basis.

As in the case of fire- and EMS-related facilities, to meet prior zoning approval requirements the Applicant will provide its "fair-share" contributions for the expansion of police-related facilities. The applicant has also committed to provide areas within the commercial portion of the Project for additional police-related facilities, should these be needed, and to work with the County and the community to discuss expansion of police resources in the area.

4.12.4 Health Care

Emergency services are provided through the Fire Department's emergency medical unit located directly across from the Project at the South Kohala Fire Station.

The closest hospital is the private North Hawaiʻi Community Hospital, which includes the Lucy Henriques Medical Center, in Waimea. The hospital provides private, full service, acute care and 24-hour emergency health services. Three other hospitals within 40 miles of the Waikoloa region offer emergency and urgent care services, acute care, and long-term care. These are the Kona Community Hospital (located approximately 40 miles away), Kohala Hospital (35 miles), and Hale Hoʻola Hamakua (32 miles). Across the County, critical care hospitalization decreased 17 percent between 1995 and 2005, while long-term care admissions more than doubled between 1993 and 2005. In 2006, there was an average of 2.3 beds per 1,000 people. No new facilities are planned, but zoning has been approved for the potential expansion of the North Hawaiʻi Community Hospital in Waimea.

Potential Impacts and Mitigation

According the SMS Assessment, area residents and community leaders expressed a strong interest in an urgent care clinic and basic health care services within the Waikoloa region. The Applicant has been interviewing several medical providers about a potential clinic that can be built as part of the project and serve both local residents and visitors to the area. In addition, the

Applicant has proposed that a privately operated urgent care medical service facility be located within the commercial center portion of the Project, which would serve an important need of the local residents and alleviate some of the burden on hospitals of the area.

4.12.5 Schools

There are three public schools serving students in the Waikoloa region: Waikoloa Elementary and Intermediate School (K-8) located in Waikoloa Village, Waimea elementary School (K-5) located in Kamuela, and Kealakehe Elementary school (K-5) and Kealakehe High School (9-12) located just north of Kailua-Kona.

School-aged children living in The Villages would attend public school at Waikoloa Elementary and Intermediate School in the Waikoloa Village, and at Kealakehe High School approximately 25 miles to the south. Waikoloa Elementary and Intermediate School is completing its transition to an intermediate school in the 2009-2010 school year by the addition of classrooms for the eighth grade.

Six private schools in the region offer an alternative to public education in different grade levels.

Potential Impacts and Mitigation

The number of students will rise as new residents move into the Project. It is estimated that potentially 1,000 students could be added from the Project to the educational system, according to the SMS *Socio-Economic Impact Assessment.* This number assumes that the demographic profile will be similar to the Waikoloa Village community, although marketing will be directed to buyers who would use the units as second homes. There will also be a need for additional childcare services for prekindergarten-age children.

The DOE's optimum class size for grades 4 through 12 is 26 students for every teacher (26:1). Waikoloa public schools have an average of 15 students per classroom, but data from the 2007 South Kohala CDP school profile shows that maximum capacity will be reached for Waikoloa Elementary School with the addition of 210 more students. Waimea Middle School will reach maximum capacity with 420 more students.

While the LUC condition requires only 16 acres for a school site, the Applicant has set aside 32 acres outside the Urban Land Use District for a school to be developed by the Department of Education. The area is large enough to develop a middle or high school. The DOE is currently working with the Applicant towards an agreement on the 32-acre set-aside. The planned site is in the area adjacent to the proposed 16-acre active park and offers the opportunity of co-use of the athletic fields that are required for a high school program. The revenue the State will receive in taxes from the development will aid in the funding for these facilities.

Should the school site be located in the Agricultural District, a Special Permit would be required from either the State or County, depending on the overall size of the site. In addition, an amendment to the existing LUC approvals may also be required if the school site is relocated from the Urban portion of the Project where it was originally intended. In the alternative that a

Special Permit or redistricting approval from the LUC is not granted, an alternate site within the Urban portion of the Project would be sought. The Applicant has filed a motion with the LUC to modify the public school site condition to allow either the maximum 16-acre site within the urban classified land or a 32-acre site outside the area on terms and conditions acceptable to the Applicant and the Department of Education.

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5 ALTERNATIVES DISCUSSION

Title 11, DOH, Chapter 200, EIS Rules, Section 11-200-17(f), provides that "known feasible" alternatives to the proposed project be limited to those that would allow the objectives of the Project to be met while minimizing potential adverse environmental impacts.

The following alternatives are presented for this discussion:

1) No Action/Undeveloped
2) Develop According to Original Master Plan
3) Develop According to Existing Zoning
4) Develop at Lower Densities
5) Postpone for Future Study
6) Develop According to Preferred Alternative

5.1 NO ACTION/UNDEVELOPED

The No Action alternative would mean the Property would be left undeveloped. No Action would place the Applicant in a position of non-compliance with approved zoning and land-use entitlements. Furthermore, this alternative does not meet the Project objectives to develop village communities as an integral and contributing part of the Puakō and Waikoloa communities. The Waikoloa community is in need of regional road networks. Mauka-makai and north-south regional connectivity would not be realized under the No Action alternative. Similarly, other regional projects connected with the Project, such as a redundant County water system, park and public school sites, would not be implemented.

5.2 DEVELOP ACCORDING TO ORIGINAL MASTER PLAN

The original conceptual master plan for 3,000 acres proposed six golf courses, a golf academy, 3,220 residential and rural-residential units/lots, and a commercial area. This master plan will not meet the County's or community's goal of greater roadway connectivity nor will it meet the objectives of the Project while responding to the current market conditions. Moreover, the original master plan would not contribute to an efficient use of land through a more compact urban development, as represented in the current master plan. The original master plan was developed at a time when there was a far greater demand for golf use, which no longer is the case.

5.3 DEVELOP ACCORDING TO EXISTING ZONING

The existing zoning in the 1,060-acre Urban District alone would allow development of a maximum density of about 3,436 units/lots and two golf courses. However, the rigid zoning lines discourage creative community planning and efficient site planning. The impact on the environment would be greater, as the current zoning does not provide the same flexibility of responding to site conditions. The current zoning also does not allow for a more flexible and integrated approach to site planning which is integral to smart-growth site design.

5.4 DEVELOP AT LOWER DENSITIES

The alternative of developing at lower residential densities is not feasible given the cost to develop needed infrastructure for the Project. The community infrastructure includes expanding the County water system to the benefit of the region, provision of up to 500 affordable housing units, roadways built to County and State standards, State highway intersection improvements, improving regional connectivity, creation of a new wastewater treatment facility and upgrading existing wastewater treatment systems to allow for the use of reclaimed water, creation of a dual water system to convey non-potable water for irrigation purposes, donation of up to 32 acres towards a public school site, and the set-aside of park, community center and nature preserve sites.

5.5 POSTPONE FOR FUTURE STUDY

The alternative to postpone for future study contradicts the goal of providing a residential community with affordable housing units, regional water and roadway systems, and a school site. The Property is uniquely situated to provide community transitioning between the resorts and Waikoloa Village. The Applicant has committed to building the affordable housing units on-site as required by the State LUC. Postponing the Project would not be an act of good faith. A thorough study of the Project's social, economic, and environmental considerations have been undertaken and point to the overall positive impact that the Project would have for the area.

5.6 PREFERRED ALTERNATIVE

The preferred alternative that seeks a change from the current to a Project District zoning has been chosen because it would provide the applicant the flexibility to respond to market demands, project design considerations, and evolving community needs. Maintaining the numerous zoning classifications on the Property will affect the siting of any future projects, such as roadways, the golf course, commercial nodes, affordable housing projects, and residential communities. The previous landowner received one non-significant zoning boundary amendment approval from the Planning Director. If the current zoning classifications are not changed, it is highly probable that non-significant zoning requests would be frequent and time-consuming for Planning Department staff. The preferred alternative would be to align the goal of the Project with the goals of the Project District zoning. That is, to provide for a flexible and creative planning approach and in locations of specific uses and mixes of structural alternatives. The Applicant seeks to provide a quality and meaningful approach to building The Villages of ʻĀina Leʻa community.

6 RELATIONSHIP OF PROJECT TO LAND USE PLANS, POLICIES AND REGULATIONS

6.1 CHAPTER 343, HRS, ENVIRONMENTAL IMPACT STATEMENTS

Compliance with Chapter 343, HRS, is required as described in Section 1.1 of this EIS.

6.2 CHAPTER 226, HRS, HAWAIʻI STATE PLAN

The Hawaiʻi State Plan (Chapter 226, HRS) is the comprehensive statewide planning document that serves to guide long-range development in the State by describing desired future growth for Hawaiʻi residents and providing goals, objectives and policies intended to shape the direction of public and private development.

There are three overall themes of the Hawaiʻi State Plan: (1) Individual and family self-sufficiency; (2) social and economic mobility; and (3) community or social well-being. The Plan sets three goals to meet the overall themes in Section 226-4:

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

Discussion: The Project meets those goals through the providing of short- and long-term employment for present and future generations, increasing State and County tax revenues, and contributing to the diversity, growth and stability of the community and region as discussed in Section 4.10 of this EIS.

The arid, lava environment will be replaced with a contributing community networked by roads, community parks, a 32-acre school site, and a series of pedestrian and bicycle pathways. The planned expansion of the County's water system will bring essential redundancy and backup that is presently lacking in the Lalamilo component of the South Kohala system. Allowing the County to construct the Waikoloa Emergency Access Road on portions of the Property is an example of community responsibility already exhibited.

In the short-term, potable and non-potable water for the affordable housing units will be purchased from the West Hawaiʻi Water Company. For non-potable water, the Applicant will install equipment at the Waikoloa Sewer Plant A to convert the R-2 water to R-1 water in exchange for output. The R-1 treatment will eliminate the need for cesspools at the Waikoloa

Sewer Plant A. From a long-term perspective, wastewater may be treated at an on-site WWTP and reused for irrigation on the golf course and landscaped common areas to reduce potable water demand.

Other relevant portions of the Hawaiʻi State Plan include the following from Section 226-19, HRS, relating to Housing:

Objective a.1: [Provide] greater opportunities for Hawaiʻi's people to secure reasonably priced, safe, sanitary, livable homes, located in suitable environments that satisfactorily accommodate the needs and desire of families and individuals, through collaboration and cooperation between government and nonprofit and for-profit developers to ensure that more affordable housing is made available to very low-, low- and moderate-income segments of Hawaiʻi's population.

Objective a.2: The orderly development of residential areas sensitive to community needs and other land uses.

Policy b.1: Effectively accommodate the housing needs of Hawaiʻi's people.

Policy b.2: Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income and gap-group households.

Policy b.3: Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.

Policy b.5: Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.

Policy b.6: Facilitate the use of available vacant, developable, and underutilized urban lands for housing.

Discussion: The Project is consistent with the housing objectives and policies of the State Plan. It will include 1,962 residential units on vacant land that has been designated for urban use. The Project will also include up to 500 affordable housing units in West Hawaiʻi where there is a strong demand for such housing, particularly in the South Kohala and North Kona districts where employment is centered in the resort industry. The affordable units will provide housing opportunities close to work for such employees, particularly those who currently commute from other parts of the island, including many from East Hawaiʻi.

Also relevant is the following from Section 226-5 relating to population:

Policy b.1: Manage population growth statewide in a manner that provides increased opportunities for Hawaiʻi's people to pursue their physical, social, and economic aspirations while recognizing the unique needs of each county.

Policy b.2: Encourage and increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.

Policy b.3: Promote increased opportunities for Hawaiʻi's people to pursue their socio-economic aspirations throughout the islands.

Policy b.7: Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.

Discussion: The project's commercial and recreational components will fulfill the State Plan's population goals by providing increased opportunities in an area where they are currently limited. The provision of a school site will expand educational opportunities. Discussions are also underway for the possible provision of workforce housing which would further expand residential inventories in the area for workers currently commuting to the resorts.

Also relevant is Section 226-12 relating to scenic, natural beauty and natural resources:

Policy b.1: Promote the preservation and restoration of significant natural and historic resources

Policy b.3: Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.

Discussion: In support of the State Plan's objective of enhancing Hawaiʻi's scenic assets, the average 1,200-foot wide highway open space buffer fronting the Project will protect the scenic corridor and mauka viewplanes. Additional discussion of the Project's impact on scenic viewplanes and proposed mitigation is found in Section 4.9 of this EIS.

An archaeological inventory survey, an archaeological data recovery report, and a cultural impact assessment have been prepared for the Project. The Project will promote the preservation of a shelter and ahu, and portions of a cattle drive trail on the property. Discussion on historic and cultural resources is found in Sections 4.3 and 4.4 of this EIS.

Portions of Section 226-104 on population growth and land resources priority guidelines are also relevant:

Policy b.6: Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.

Policy b.12: Utilize Hawaiʻi's limited land resources wisely, providing adequate land to accommodate project population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.

Discussion: The Project is located in an area designed for Urban Expansion by the County General Plan LUPAG Map and designated as Urban by the State Land Use Commission.

The Property does not serve as critical habitat for endangered or threatened wildlife other than the endangered red ʻilima. . The red ʻilima could not be found during subsequent field surveys in 2000 and in 2010 and is believed to have succumbed to the drought conditions. A follow-up survey following a period of extended rain was recommended to confirm its presence. This survey will be conducted prior to land alterations in the vicinity of the preserve.

If it is determined that the species has not succumbed to drought in the project area, it will be protected through establishment of a recommended 5-acre preserve. A preservation and interpretation plan, in consultation with the U.S. Fish and Wildlife Service and State Department of Land and Natural Resources, will be prepared based upon a follow-up survey to locate the plant.

The Project is consistent with the above-stated guidelines of the State Plan and will contribute to a stronger economy and provide enhanced economic, educational and recreational opportunities and a greater diversity of housing.

6.3 CHAPTER 205A, HRS, COASTAL ZONE MANAGEMENT (CZM) ACT

The CZM area is defined in Chapter 205A, HRS, as <u>" ... all lands of the State and the area extending seaward from the shoreline to the limit of the State's police power and management authority, including the United States territorial sea."</u> The Property is in the CZM area, but is outside the County's Special Management Area.

The objectives of the CZM Program are to provide the public with recreational opportunities, protect historic resources, protect scenic and open space resources, protect coastal ecosystems, provide facilities for economic development, reduce hazards, and manage development. Specific CZM objectives and policies that apply to the Project are discussed below:

<u>Historic Resources:</u>

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

Policy A: Identify and analyze significant archaeological resources.

Policy B: Maximize information retention through preservation of remains and artifacts or salvage operations.

Policy C: Support state goals for protection, restoration, interpretation, and display of historic resources.

Discussion: The Project will support the above-stated objective and policies of the CZM. An archaeological inventory survey, an archaeological data recovery report, and a cultural impact assessment have been prepared for the Project. These studies have identified two archaeological sites, which will be preserved, and a cattle drive trail, portions of which will be integrated into the Project where appropriate.

Scenic and Open Space Resources

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

Policy B: Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline.

Policy D: Encourage those developments that are not coastal dependent to locate in inland areas.

Discussion: The Project, which is located approximately 9,000 feet from the shoreline, will feature an average 1,200-foot wide open space buffer along the mauka side of the Queen Kaʻahumanu Highway, which will protect the scenic corridor and mauka view planes. The design of the golf course, coupled with the siting of buildings in the Project pending approval of the Project District zoning, will promote and ensure open space and minimize alteration of existing public views.

Coastal Ecosystems

Objective A: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Policy D: Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs.

Policy E: Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and non-point source water pollution control measures.

Discussion: The Project will meet the objectives and policies of the CZM program through the use of bio-swales, bio-filtration and detention basins, which will reduce peak discharge rates and filter runoff to down-gradient areas. During construction activities, best management practices and erosion control measures will also be implemented. The establishment of a groundwater quality, monitoring program for the golf course will provide data and monitoring information to protect degradation of the ground water resources. Proposed drainage and erosion control measures are discussed in Section 3.4.1 and Section 4.11.4, respectively.

6.4 CHAPTER 205, HRS, LAND USE

The State Land Use Law establishes the State Land Use Commission (LUC) and authorizes the Commission to designate all lands into one of four districts: Urban, Rural, Agriculture, and Conservation.

Approximately 1,060 acres of the Property were classified Urban by the LUC in 1989. The balance of the Property, 1,940 acres, is in the Agricultural District. The proposed uses are in accordance with land use district standards contained in Chapter 205, HRS. Residential and commercial activities are allowed in the Urban District, as are golf courses. According to Chapter 205, roadways and utilities are allowed uses in the Agricultural District. A portion of the golf course which would extend into the agricultural district would be allowed under section 205-4.5(d), HRS, which specifies that those golf course developments that were approved by the County before July 1, 2005 to be permitted uses within the agricultural district. As noted previously, the golf course for the Project was approved on December 11, 1991 under County Use Permit No. 90.

On April 30, 2009, the LUC voted by oral motion to revert 1,060 acres in the Urban District to its original Agricultural classification after the LUC approved a motion to "show cause" why the reversion should not be approved. On June 5, 2009, the LUC voted to stay or hold the acceptance of the findings of fact, conclusions of law, and decision and order for the reversion. On August 27, 2009, the LUC voted to rescind its motion to revert the Urban classification to Agriculture, which allows the Applicant to proceed with its Project District Zoning Application. In addition, as noted previously, should the Applicant chooses to locate a commercial area within the 1,200-foot setback from Queen Kaʻahumanu Highway as currently depicted in the Conceptual Master Plan, the Project would require an amendment to Condition 3 of the Decision and Order for Land Use Commission Docket A87- 617 as well as Plan Approval from the County Planning Director. Additionally, following confirmation with the State Land Use Commission on the boundary of the buffer area along Queen Kaʻahumanu Highway, the Applicant would record a conservation easement comprising the approximately 225 acres with the State Bureau of Conveyances, as required by Condition 3 of the LUC Decision and Order.

The wastewater treatment plant is allowed in the agricultural district with a special permit issued by a county planning commission under section 205-6. Should the school site be located in the Agricultural District, a Special Permit would be required from either the State or County, depending on the overall size of the site. In addition, an amendment to the existing LUC approvals may also be required if the school site is relocated from the Urban portion of the Project where it was originally intended. As noted previously, the Applicant has filed a motion with the State Land Use Commission to modify the LUC condition regarding the public school site to allow for either the maximum 16-acre site within the Urban classified land or a 32-acre site outside that area, within the Agricultural District, on terms and conditions acceptable to the Applicant and the DOE.

6.5 County General Plan

6.5.1 Land Use Pattern Allocation Guide (LUPAG)

The Hawaiʻi County General Plan is the policy document guiding the long-range comprehensive development of the island of Hawaiʻi, providing direction for balanced growth of the County. The Plan contains goals, policies, and standards concerning twelve functional areas as well as a series of maps referred to as General Plan Land Use Pattern Allocation Guide (LUPAG) Maps.

The General Plan (LUPAG map and document) designates the subject site as Urban Expansion. The designation "[A]llows for a mix of high density, medium density, low density, industrial, industrial-commercial and/or open designations in areas where new settlements may be desirable, but where the specific settlement pattern and mix of uses have not yet been determined."

The General Plan also designates a band of Conservation land along the Property's frontage with Queen Kaʻahumanu Highway. Conservation is described as "Forest and water reserves, natural and scientific preserves, areas in active management for conservation purposes, areas to be kept in a largely natural state, with minimal facilities consistent with open space uses, such as picnic pavilions and comfort stations, and lands within the State Land Use Conservation District."

The Project's Conceptual Master Plan delineates a natural buffer of open space fronting the highway with an average depth of 1,200 feet, and a mixed-use development within the Urban designated portion of the property, which is consistent with the General Plan's designation of Conservation.

6.5.2 General Plan Goals and Policies

The Project is consistent with the following goals, policies and objectives of the General Plan relating to the respective elements:

<u>Economic Element</u>

Goal a: Provide residents with opportunities to improve their quality of life through economic development that enhances the County's natural and social environments.

Goal c: Strive for diversity and stability in the economic system.

Goal g: Strive for full employment.

Policy c: Encourage the development of a visitor industry that is in harmony with the social, physical, and economic goals of the residents of the County.

Policy d: Require a study of the significant cultural, social and physical impacts of large developments prior to approval.

Discussion: A socio-economic study included in the Appendices was performed for the Project. It found positive economic benefits would be generated in the form of direct, indirect, and induced employment, government revenues, and personal income. The Project's golf academy will attract golf professionals and students from around the world leading to an increase in visitor opportunities. Additional discussion of the Project's impact on the local economy and proposed mitigation is found in Section 4.10.

A cultural impact assessment was performed of the area, and portions of a cattle drive trail will be integrated into the Project where possible. Additional discussion of the cultural resources and the Project's impact is found in Chapter 4 of this EIS.

Environmental Quality

Policy j: Require golf courses to implement best management practices to limit leaching of nutrients to groundwater in areas where they may affect streams or coastal ecosystems.

Discussion: Best management practices will be adopted for the operation of the golf course to curb leaching of nutrients to the ground water. The tertiary treatment of effluent will also significantly reduce the amount of nutrients that would filter to the ground water. Ground water quality monitoring is required as part of the approved Use Permit. Additional discussion of the Project's impact on environmental quality and proposed mitigation is found in Section 3.5 of this EIS.

Flooding and Other Natural Hazards

Goal a: Protect human life.

Goal c: Control pollution.

Goal e: Reduce surface water and sediment runoff.

Goal f: Maximize soil and water conservation.

Policy d: Any development within the Federal Emergency Management Agency designated flood plain must be in compliance with Chapter 27.

Policy g: Development-generated runoff shall be disposed of in a manner acceptable to the Department of Public Works and in compliance with all State and Federal laws.

Policy h: Develop a comprehensive program for the coordinated construction of a drainage network along a single drainage system.

Policy m: Encourage grassed shoulder and swale roadway design where climate and grade are conducive.

Policy n: Develop drainage master plans from a watershed perspective that considers non-structural alternatives, minimizes channelization, protects wetlands that serve drainage functions, coordinates the regulation of construction and agricultural operation, and encourages the establishment of floodplains as public green ways.

Policy q: Consider natural hazards in all land-use planning and permitting.

Discussion: The Project's coordinated drainage system will meet the above-stated goals and policies of the General Plan. A drainage master plan has been prepared to ensure that development-generated runoff will be disposed of in a manner acceptable to the Department of Public Works as a single drainage system. Recommended drainage controls include grassed shoulders and swales and natural retention/detention basins, which act as biofilters for improved ground water quality.

Historic Sites

Policy c: Require both public and private developers of land to provide historical and archaeological surveys and cultural assessments, where appropriate, prior to the clearing or development of land when there are indications that the land under consideration has historical significance.

Policy n: Consider requiring Cultural Assessments for certain developments as part of the rezoning process.

Discussion: The Project will have minimal impact on identified historical resources. An archaeological inventory survey, an archaeological data recovery report, and a cultural impact assessment have been prepared for the Project. The two archaeological sites of historical significance identified, both of which are located outside the proposed development areas, will be preserved and protective measures will be implemented in accordance with the approved mitigation plans. Portions of a cattle drive trail located on the property will be integrated into the Project where possible. These actions support the above-stated General Plan policies.

Natural Beauty

Goal b: Protect scenic vistas and view planes from becoming obstructed.

Policy f: Consider structural setback from major thoroughfares and highways and establish development and design guidelines to protect important view planes.

Discussion: The average 1,200-foot wide highway open space buffer fronting the Project will protect the scenic corridor and mauka view planes. Additional discussion of the Project's impact on scenic view planes and proposed mitigation is found in Section 4.9.

Natural Resources and Shoreline

Goal d: Protect rare or endangered species and habitats native to Hawaiʻi.

Goal e: Protect and effectively manage Hawaiʻi's open space, watersheds, shoreline, and natural areas.

Goal f: Ensure that alterations to existing land forms, vegetation, and construction of structures cause minimum adverse effect to water resources, and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation, or failure in the event of an earthquake.

Policy d: Encourage the use of native plants for screening and landscaping.

Discussion: If the endangered red ʻilima in the project area has not succumbed to drought it will be preserved in a recommended 5-acre preserve. A preservation and interpretation plan will be prepared based upon a follow up survey to locate the plant. The recommendations of a drainage master plan will be followed to protect and manage watersheds and natural areas of the Property. These actions are consistent with the above-stated goals and policies of the General Plan.

Housing

Goal b: Attain a diversity of socio-economic housing mix throughout the different parts of the County.

Goal c: Maintain a housing supply that allows a variety of choices.

Goal d: Create viable communities with affordable housing and suitable living environments.

Goal e: Seek production of new affordable rental and fee-simple housing in the County in a variety of sizes to satisfactorily accommodate the needs and desires of families and individuals.

Goal h: Make affordable housing available in reasonable proximity to employment centers.

Policy s: Utilize financing techniques that reduce the cost of housing, including the issuance of tax-exempt bonds and the implementation of interim financing programs.

Policy v: Work with, encourage and support private sector efforts in the provision of affordable housing.

Policy x: Vacant lands in urban areas and urban expansion areas should be made available for residential uses before additional agricultural lands are converted into residential uses.

Policy y: Aid and encourage the development of a wide variety of housing to achieve a diversity of socio-economic housing mix.

Discussion: The Project is consistent with the housing objectives and policies of the General Plan. Its 1,962 residential units will include up to 500 affordable residential units, to be built on land that is currently vacant and designated for urban use, will provide housing for a diverse socio-economic mix in West Hawaiʻi where such housing is in strong demand, particularly near the resort employment centers in South Kohala and North Kona.

Public Facilities-Education

Goal a: Encourage the provision of public facilities that effectively service community and visitor needs and seek ways of improving public service through better and more functional facilities in keeping with the environmental and aesthetic concerns of the community.

Policy b: Coordinate with appropriate State agencies for the provision of public facilities to serve the needs of the community.

Discussion: Through the provision of 32 acres of land to the State Department of Education, the Project will meet the General Plan's state course of action for South Kohala that calls for the supporting of development of an intermediate or middle school in Waikoloa.

Public Facilities-Protective Services

Policy m: Consider the proximity to fire stations in approving any rezoning to permit urban development.

Discussion: The Project is in keeping with this General Plan policy regarding proximity to fire stations. A full-service fire station with aero-medivac helicopter service is located across the Queen Kaʻahumanu Highway from the Project site. The Waikoloa Village fire station would also provide response in an emergency. A condition of the current zoning requires a per unit fair share contribution for police and fire facilities. Should the requested Project District zoning be approved, the Applicant anticipates inclusion of the fair share contribution as one of the conditions of the new zoning ordinance for the project.

Public Utilities-Water

Policy b: All water systems shall be designed and built to Department of Water Supply standards.

Policy c: Improve and replace inadequate systems.

Policy f: A coordinated effort by County, State and private interests shall be developed to identify sources of additional water supply and be implemented to ensure the development of sufficient quantities of water for existing and future needs of high growth areas and agricultural production.

Policy k: Promote the use of ground water sources to meet State Department of Health water quality standards.

Discussion: The project will be consistent with the plan's policies and as well as the desired course of action for South Kohala which is to seek alternative sources of water for the district's water system. Proposed water system improvements, which will include wells, transmission lines, and storage tanks, will be constructed to Department of Water Supply standards and will be dedicated to the County. This upgrade will ensure essential backup to the Lalamilo component of the South Kohala system that currently does not have redundancy. The development of ground water sources will meet the State Department of Health water quality standards.

Public Utilities-Sewer

Policy b: Private systems shall be installed by land developers for major resort and other developments along shorelines and sensitive higher inland areas, except where connection to nearby treatment facilities is feasible and compatible with the County's long-range plans, and in conformance with State and County requirements.

Policy e: Plans for wastewater reclamation and reuse for irrigation and biosolids composting (remaining solids from the treatment of wastewater is processed into a reusable organic material) shall be utilized where feasible and needed.

Policy f: Require major developments to connect to existing sewer treatment facilities or build their own.

Discussion: A private WWTP will be installed to treat wastewater from the Project at an R-1 level. The membrane bioreactor process is an effective treatment process for removing solids and unwanted nutrients. The effluent will be reused and mixed with brackish water to irrigate the golf course and landscaping.

To irrigate the affordable housing landscaping and roads, the Applicant plans to upgrade the West Hawaiʻi Sewer Company's ʻAuwaiakeakua WWTP to an improved R-1 level. This will eliminate the cesspool disposal at the WWTP and provide further protection to the ground water quality for ML's down-gradient irrigation wells.

The construction of a private WWTP will support the above-state General Plan policies.

Recreation

Goal a: Provide a wide variety of recreational opportunities for the residents and visitors of the County.

Goal c: Provide a diversity of environments for active and passive pursuits.

Policy a: Strive to equitably allocate facility-based parks among the districts relative to population, with public input to determine the locations and types of facilities.

Policy o: Develop facilities and safe pathway systems for walking, jogging, and biking activities.

Discussion: The Applicant was required by the existing zoning approval to provide a 10-acre park but has offered to expand the size of that park to 16 acres. It will be located on the adjacent Parcel 40 for active public park and recreational uses, meeting the above goals and policies of the General Plan as well as a stated course of action for South Kohala specifically to encourage the establishment of neighborhood park. The Park will be privately maintained until the County requests its dedication. A separate 16-acre park site will also be available to the public for passive recreational uses. It will be privately held and maintained pending a request from the County to assume ownership. The Applicant is also in discussion with the Department of Parks and Recreation to provide land for a community center for the district.

Transportation

Goal a: Provide a system of roadways for the safe, efficient and comfortable movement of people and goods.

Policy j: Transportation and drainage systems shall be integrated where feasible.

Policy j: Encourage the development of walkways, jogging, and bicycle paths within designates areas of the community.

Discussion: The Project will meet the General Plan's goals and policies regarding transportation as it will be developed with appropriate, safe interior roads meeting with the requirements of the County Department of Public Works as well as bicycle and pedestrian paths. The Project will be accessed from two locations on Queen Kaʻahumanu Highway, one of which is fully channelized and signaled. A second access road further north is proposed to provide a mauka-makai connection with the Waikoloa Village community.

Land Use–General

Policy a: Zone urban types of uses in areas with ease of access to community services and employment centers and with adequate public utilities and facilities.

Policy f: Encourage the development and maintenance of communities meeting the needs of its residents in balance with the physical and social environment.

Policy j: Encourage urban development within existing zoned areas already served by basic infrastructure, or close to such areas, instead of scattered development.

Land Use–Commercial

Goal a: Provide for commercial developments that maximize convenience to users.

Policy a: Distribution of commercial areas shall meet the demands of neighborhood, community and regional needs.

Land Use–Multiple Residential

Goal a: To provide for multiple residential developments that maximize convenience for its occupants.

Goal b: To provide for suitable living environments that accommodate the physical, social and economic needs of the island residents.

Policy a: Incorporate reasonable flexibility in applicable codes and ordinances to achieve a diversity of socio-economic housing mix.

Policy c: Encourage flexibility in the design of residential sites, buildings and related facilities to achieve a diversity of socio-economic housing mix and innovative means of meeting the market requirements.

Policy h: Require developers to provide basic infrastructure necessary for development.

Land Use–Single-Family Residential

Goal a: To maximize choices of single-family residential lots and/or housing for residents of the County.

Goal d: To provide single-family residential areas conveniently located to public and private services, shopping, other community activities and convenient access to employment centers that takes natural beauty into consideration.

Policy d: Incorporate reasonable flexibility in codes and ordinances to achieve a diversity of socio-economic housing mix and to permit aesthetic balance between single-family residential structures and open spaces.

Policy i: Require developers to provide basic infrastructure necessary for development.

Discussion: The Project is consistent with the land-use objectives and policies of the General Plan. As previously discussed, it will include a variety of infrastructure components including roadways and water and wastewater facilities. A commercial component will meet the demands of neighborhood, community and regional needs. Its residential units, which will be located near work centers at South Kohala resorts, will include a mix of single- and multiple-family residences, including up to 500 affordable housing units.

6.6 South Kohala Community Development Plan (CDP)

The General Plan now requires that Community Development Plans be adopted by the County Council as an ordinance, giving the CDP the force of law. This is in contrast to plans created over past years, which were adopted by resolution and served only as guidelines or reference documents to decision-makers. The South Kohala CDP was adopted by the County Council in November 2008. The version referenced in this Environmental Assessment is at: http://www.hcrc.info/community-planning/south-kohala-cdp/skcdpfinaldraft11.18.08.pdf. The South Kohala CDP "is intended to be the forum for translating South Kohala's community input into Policies and Action Plans that shape the future land use of the district …." South Kohala district-wide policies are intended to address four priority issue areas: Preserve Culture/Sense of Place, Transportation, Emergency Preparedness, and Environmental Stewardship/Sustainability. From these, policies and planning strategies have been developed for four specific communities in the district: Waimea, Waikoloa Village, Kawaihae, and Puakō. The Project is included as part of the Waikoloa Village Area Plan.

Applicable district-wide policies and sub-policies are discussed below:

<u>District-wide</u>

General Policy 2: Provide for the Transportation and Circulation Needs of the South Kohala Community and for Commuters To/From South Kohala.

Sub-policy 2.1: New major roads in the District shall incorporate "complete street" standards, including provisions for vehicular traffic, pedestrians, bicycles, and public transportation, except in the case of mitigation factors.

Sub-policy 2.2: Establish bicycle, pedestrian, and equestrian travel ways to link up the communities within the District (Waikoloa Village, Waimea, Puakō, Kawaihae, and the resort nodes) while also establishing alternative travel ways within the individual communities.

Discussion: Appropriate roads in the Project will be designed to enable safe access for pedestrians, bicyclists, motorists and bus riders. A goal of the Project District is to provide interconnective roadway systems with neighboring properties. With the development of the Project, a mauka-makai connection with Waikoloa Village will be realized. A continuing north-south roadway system will depend on development of Bridge property and adjacent property owners to the north of the DW ʻĀina Leʻa property.

General Policy 3: Provide affordable and workforce housing resources for low and moderate income individuals, families, and for those residents of South Kohala with special needs.

Sub-policy 3.1: The County shall establish policies and programs for the implementation of affordable and workforce housing projects in those areas of the island where such projects are most needed, including Waimea and Waikoloa Village.

Discussion: At least 385 affordable housing units are being constructed within the Project site. The provision of onsite workforce housing is being discussed with the County.

General Policy 4: Develop programs and standards that will protect the South Kohala community from natural hazards, including major storms, flooding, tsunami, lava flows, and wildfires.

Sub-policy 4.1: The County shall develop plans and programs for emergency routes so that people can safely move away from life-threatening natural hazards.

Sub-policy 4.3: Government agencies should consider providing more emergency shelter facilities in South Kohala.

Discussion: The County constructed a critical emergency access road for Waikoloa Village residents on portions of the Project site with the approval of the prior landowner. If a school is constructed on the Applicant's Property, it can be designated as an emergency shelter by the Civil Defense Agency.

General Policy 5: Develop guidelines and programs that promote environmental stewardship and the concept of sustainability.

Sub-policy 5.1: Proposed uses of natural resources shall be duly evaluated by the responsible public entities to ensure that each such use is consistent with the sustainable long-term health of the eco-system, including the direct and indirect impact on coastal waters.

Sub-policy 5.3: Ensure the quality of South Kohala's ground water resources and marine resources.

Discussion: The Project will meet the CDP's policies regarding natural resources and the environment, including its water sources. The Applicant has entered into an agreement with the County Department of Water Supply to develop up to four wells and related infrastructure improvements. A portion of the water will be added to the DWS system, bolstering the supply of its Lalamilo component. The projected domestic water requirements for the Project are well below the anticipated maximum pumping capacity, and the Project will have only a negligible impact on groundwater resources. Non-potable water for irrigation of the golf course and landscaping areas will be derived from onsite brackish wells and reclaimed domestic wastewater. <u>While the water use within the Project is not anticipated to have a significant impact to the available resources in the area, possible future developments in the region, if implemented without proper oversight and management, could overtax the available water resources to unsustainable levels. The Applicant is committed to working with regional and government stakeholders to develop a long-term resource conservation plan to address short- and long-term efforts towards resource sustainability.</u>

6.6.1 Waikoloa Village Area Plan

The CDP projects Waikoloa Village area having a planned buildout of 7,160 units or lots, and a potential buildout of 8,094 units or lots given the current County zoning of area parcels.

The Waikoloa Village Conceptual Plan is a graphic and narrative depiction of general policies and strategies for the long-range (20+ years) future of Waikoloa Village with emphasis on the following:

- Providing needed community facilities for a growing town
- Environmental stewardship, sense of place, open space
- Providing transportation and circulation improvements in a timely manner
- Affordable housing and smart growth

The CDP designated the former Bridge ʻĀina Leʻa Villages as a planned development project with the following features:

- 3,000 acres
- 3,000+ units
- 5 Golf Courses
- Golf Academy
- Commercial Villages
- 40 Unit Lodge

Policy 1: Provide needed infrastructure and community facilities for a growing community.

Strategy 1.2: Plan, fund and construct needed public schools—elementary, middle, and high.

Discussion: LUC Condition No. 7 requires the Applicant to donate, if needed, a maximum of 16 acres of land for public school site(s) as the DOE determines. The Applicant has made a commitment of up to 32 acres in the Agricultural District. The exact location and purpose (middle or high school) have yet to be decided.

Strategy 1.6: Manage and upgrade the wastewater treatment and disposal systems.

Discussion: In addition to constructing the Project's own wastewater treatment plant, the Applicant will upgrade the ʻAuwaiakeakua WWTP from R-2 to R-1 treatment for water reuse on landscaped roadways and affordable housing sites. The upgrade will eliminate that plant's current effluent disposal field, thereby improving the impacts of the existing Waikoloa WWTP on the environment.

Strategy 1.7: Provide more emergency facilities.

Discussion: If a school is constructed on the donated acreage to DOE, the public school could be a designated emergency facility in the case of certain emergencies.

Policy 2: Environmental stewardship, sense of place, open space.

Strategy 2.2: Preserve Waikoloa's scenic views, landscapes, and puʻu.

Discussion: The Project will preserve scenic view corridors through its average 1,200-foot wide Highway Buffer. Additional discussion is found in Section 4.9.

Policy 3: Provide transportation and circulation improvements in a timely manner.

Strategy 3.3: Upgrade the emergency access road from Hulu Street to Queen Kaʻahumanu Highway.

Discussion: The CDP suggests that the Memorandum of Agreement between Bridge and the County for the emergency access road should be amended to allow for walking and bicycling. Further, the CDP says paving the access road would create a more useful emergency route. Unless funding is accelerated, any improvements of the emergency access road to County standards would be done concurrent with the phasing of that portion of the development.

Policy 4: Encourage affordable housing and smart growth.

Discussion: The Project's requested Project District rezoning will contain at least 385 affordable housing units and will allow the Project to be designed under smart growth principles, such as the siting and clustering of buildings that would reduce infrastructure costs and increase open space.

6.7 County Zoning Code

In 1993, Ordinance No. 93-1 rezoned 3,000 acres of land, including the 1,060-acre Property, to Multiple-Family (RM-4, RM-7, and RM-14.5), Village Commercial (CV-10), and Residential-Agriculture (RA-1a). In 1996, amendments to conditions of Ordinance No. 93-1 were approved by Ordinance No. 96-153 (see Appendix B). Minor zoning changes were requested and approved by the Planning Director in November 2000.

A five-year extension of time to comply with Condition C (submit subdivision plans/secure final subdivision approval) was granted by the Planning Director and extended this date until September 21, 2009, which was met through submission and receipt of final subdivision approval in 2009 for the first phase of development.

The County Council's Resolution No. 229-00 authorizes the establishment of timeshare units on the Project site. The Applicant acknowledges that approval of this use is still needed from the State Land Use Commission, however inclusion of timeshare units is no longer being considered as part of the planned development.

6.7.1 Rationale for Requested Project District Zoning

The Applicant is seeking rezoning of 1,060 acres from the existing RM, CV, RA and A zoning designations to a Project District zoning to allow for greater flexibility in site planning and project implementation.

6.7.2 Purpose of Project District Zoning

According to Chapter 25, Division 4, Hawaiʻi County Code, the purposes of the Project District are as follows:

> "to provide for a flexible and creative planning approach rather than specific land-use designations for quality developments. It will also allow for flexibility in location of specific uses and mixes of structural alternatives. The planning approach would establish a continuity in land uses and designs while providing for a comprehensive network of infrastructural facilities and systems. A variety of uses as well as open space, parks, and other project uses are intended to be in accord with each individual project district objective…."

Discussion: The Applicant desires the flexibility afforded by the Project District zoning to help determine the exact location of the recreational amenities such as the golf course, natural buffers, access, roadways, and residential and commercial pods. Further, the zoning will allow the developer to determine the mix of residential units as dictated by market forces and other planning and technical considerations. If this was a small, single-use project, the development constraints provided by zoning designations with specific metes and bounds description would not be as problematic. For a project of this size and complexity, however, the Project District zoning designation provides the needed design and site planning flexibility while assuring that public concerns, such as access and associated infrastructure requirements, are addressed.

6.7.3 Project District Zoning Criteria

The criteria for a Project District zoning and the requested Project's relationship are:

> *a. whenever the public necessity and convenience and the general welfare require that a comprehensive planning approach for an area be adopted.*

Discussion: In this situation, the size of the Property (1,060 acres) fulfills the minimum requirement of 50 acres to apply for the Project District zoning. Having only a singular use, such as a golf course or a multiple-family project, would not warrant a Project District application. However, the Project proposes five different uses: commercial, golf course, single-family residential, multiple-family residential, and mixed commercial/residential. Under traditional zoning, these uses would require respective separate zonings and corresponding metes and bounds description – similar to the existing zoning for the Property. These separate zonings are impractical and not conducive to a comprehensive planning approach that can be adjusted for market demands and/or community considerations.

The Project District provides the needed flexibility that would avoid having to proceed with constant amendments to the base ordinance to accommodate field, design, and market changes. As mentioned above, minor zoning amendments were already requested and approved in 2000.

Through conditions of approval, all of the required infrastructure and associated concerns will be addressed and the requested land uses would be allowed under a density cap, which traditional zoning does not carry.

> *b. consistency with the intent and purposes of the Zoning Code and the County General Plan.*

Discussion: All of the standards and criteria for the respective land uses outlined in the Zoning Code will be met. Amending the existing zoning districts to a Project District comports with the purpose of the Project District quoted in Section 6.7.2 above, which is to "establish a continuity in land uses and designs while providing for a comprehensive network of infrastructural facilities and systems."
The proposed Project design criteria and development standards contained in Section 2.4 of this EIS are similar to the Zoning Code. For example, a single-family residential dwelling will still have to meet the appropriate setback and height limits of the single-family zoning. Likewise, the parking requirement for the commercial center or the height of the golf clubhouse must be consistent with the commercial standards of the Zoning Code.

The Project site has been designated an Urban Expansion area in the County's General Plan. All requested uses for the Project District are permitted in the Urban Expansion designation. Additional analysis of the Project's consistency with applicable goals and policies of the General Plan is found in Section 6.5.

> *c. will not result in a substantial adverse impact upon the surrounding area, community or region.*

Discussion: While there will be impacts, the significant impacts can be mitigated. Other impacts will be beneficial. Discussion of the existing conditions of the environment, potential impacts, and proposed mitigation measures can be found in Chapters 3 and 4 of this EIS.

As noted throughout this EIS, the Project will construct a portion of connector roads through the property, provide its own infrastructure, contribute towards the affordable housing program, provide public recreational areas, set aside land for a public school facility, and generate needed employment and tax revenues.

A monitoring program to address ground water quality concerns will be undertaken. An archaeological site will be preserved. Any endangered red ʻilima located on the Project site will be protected and preserved for future interpretation and education.

Should the Project District be approved, the Applicant, pursuant to Section 25-6-46 and 47, HCC, will submit the required site plan for review and approval by the Planning Director. This

process will enable the County to assure that the Project is developed in a manner that addresses all infrastructural and environmental concerns.

6.8 Community Facilities District

In 2006, the County's first Community Facilities District No. 2006-1 was petitioned by Bridge. The Council approved the petition pursuant to §32-21 HCC when it adopted Resolution No. 486-06. In accordance with the resolution, a December 2006 facilities district report was prepared and forwarded to the Council. The Applicant has advanced $75,000 to the County Finance Director, and has agreed to pay all costs and expenses related to the formation of the Community Facilities District and the issuance of the bonds.

An explanation of the Project's community facilities district is found in Section 2.5.2 of this EIS.

6.9 Approvals and Permits

The Project will need a number of approvals and permits. The approvals are administrative in nature except for the Project District zoning and the Special Use Permit from the Planning Commission for the WWTP. While the Property is already zoned for the proposed uses, the preferred Project District zoning would fulfill the County's goal of roadway connectivity while providing design flexibility that could better address community visual concerns and the Project's marketability. Anticipated approvals or permits are listed below:

<u>State Department of Land and Natural Resources-Commission on Water Resource Management:</u>

- Well Construction Permit
- Pump Installation Permit

<u>State Department of Health:</u>

- Wastewater Treatment Plant
- National Pollution Discharge Elimination System Permit (Form C for >1 acre of land disturbance, Form F if hydro-testing waters will be discharged, Form G if groundwater is encountered)
- Potable Water System Approval
- Underground Injection Control
- Clean Water Act Section 401 Water Quality Certification

<u>State Department of Transportation:</u>

- Permit to Perform Work Within a State Right-of-Way
- Storm Water Drainage Connection Permits

<u>Hawaiʻi County Council:</u>

- Project District Zoning Application (Preferred Zoning)
- Amendments to Conditions of Ordinance No. 96-153

Hawaiʻi County Leeward Planning Commission:

- Special Permit for WWTP

County Planning Department

- Project District Site Plan
- Plan Approval
- Subdivision Approval

County Department of Public Works

- Grading, Grubbing, and Stockpiling Permits
- Building Permits
- Drainage System Improvements
- Subdivision Construction Plans
- Drywell Construction Permits

County Department of Water Supply

- Water Master Plan
- Water System Construction Plans

County Department of Environmental Management

- Solid Waste Disposal Permit
- Reclaimed Wastewater Use Permit
- Solid Waste Management Plan

U.S. Army Corps of Engineers:

- Section 404 Permit Approval, if it is determined that storm waters discharge into navigable waters

In addition, if the Applicant chooses to locate a commercial area within the 1,200-foot setback from Queen Kaʻahumanu Highway as currently depicted in the Conceptual Master Plan, the Project would require an amendment to Condition 3 of the Decision and Order for Land Use Commission Docket A87- 617 as well as Plan Approval from the County Planning Director. Additionally, following confirmation with the State Land Use Commission on the boundary of the buffer area along Queen Kaʻahumanu Highway, the Applicant would record a conservation easement comprising the approximately 225 acres with the State Bureau of Conveyances, as required by Condition 3 of the LUC Decision and Order.

7 OTHER CONTEXTUAL ISSUES

7.1 RELATIONSHIP BETWEEN SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

Hawaiʻi Administrative Rule §11-200-17(j) requires a brief discussion of the "extent to which the proposed action involves tradeoffs between short-term losses and long-term losses, or vice versa, and a discussion of the extent to which the proposed action forecloses future options, narrows the range of beneficial uses of the environment, or poses long-term risks to health or safety…."

The short-term use and long-term productivity relationships are described below in the context of the four specific areas of potential concern, as described in the Hawaiʻi State Office of Environmental Quality Control (OEQC) Guidelines for EIS review. The following discussion addresses each of these potential areas of concern.

Narrowing the range of beneficial uses of the environment. The existing environment consists of a primarily rocky landscape dominated by broken ʻaʻa lavas with a cover of primarily scrub vegetation with little or no current agricultural use or potential value. The primary value of the land currently is in providing an open landscape for those living in or traveling through the area. The project location and proposed highway setbacks will help preserve the sense of open space and minimize the potential visual impacts of the project. Additionally, the Project will expand the range of beneficial uses of the environment by improving roadway networks and traffic flow in the area and providing opportunities for additional commercial, recreational and public service opportunities to the benefit of the residents and visitors to the area.

Long-term risks to health and safety. The proposed project is not expected to generate risks to health and safety. The project will comply with all drainage, natural hazard building codes, solid and liquid waste disposal requirements and water quality standards. The anticipated infrastructure improvements to area roadways are expected to enhance the safety of area residents by improving the emergency access capability in the region. All structures will be built to current building and safety codes and the Project will not generate any significant impacts to the environment that may pose potential long-term health or safety risks.

Foreclosure of future options. Currently, the range of potential uses for the property without infrastructure is quite limited. The development of the project infrastructure in a master-planned environment will broaden the future options for recreational, commercial and community service facilities. One of the objectives in obtaining the proposed Project District zoning is to provide greater planning flexibility to respond to changing economic and market demands, thus broadening the options to respond to changing community needs and market expectations.

Trade-offs among short- and long-term gains and losses. Construction-related activities will result in minor short-term impacts, and project implementation will result in long-term loss of open space and the natural environment. Potential short- and long-term negative impacts can be offset by planned mitigation measures, as discussed in this EIS. Furthermore, long-term benefits in the form of increased affordable housing opportunities; commercial, recreational and public service opportunities; job creation; improved traffic circulation; and tax revenues to the County and State outweigh the potential short and long-term losses. The Project design is intended to complement the natural landscape planning guides and intended to encourage a sustainable approach to design and development of the Project.

Short-term losses attributable to the Project will result during Project construction. The impacts to air and noise quality can be mitigated by following government regulations and industry standards.

The Project will, in the long-term, contribute substantial economic, public infrastructure and other benefits as discussed in this EIS. By providing a diverse mix of residential housing units with an eventual focus on an international golf academy, the Project will serve an important planning link by infilling the area with contributing community members and public facilities.

7.2 CUMULATIVE AND SECONDARY IMPACTS

In general, West Hawaiʻi and the project area are expected to continue to change with the expansion and infill development that takes place within existing communities and surrounding areas. The West Hawaiʻi population is forecasted to increase by 37 to 53 percent by 2020. It is expected that the economy will continue to be driven primarily by growth in the visitor industry and associated recreational real estate and West Hawaiʻi is expected to continue to attract the majority of Island visitors. The Villages project and those ongoing or planned projects will be part of this overall growth and change. Those planned developments in the Project area and within and surrounding Waikoloa Village that have initiated development or received development approvals include Castle and Cook's Wehilani and Makani Kai developments, Waikoloa Heights, the County's Waikoloa Workforce Housing Project, the Waikoloa Mauka development and possible development of the Bridge lands surrounding the project site. While the timing for these developments and whether they will be developed to the scale initially planned is not known, together they present the potential for significant change to the Project area. Combined with The Villages project, they represent the possible addition of approximately 7,754 planned housing units in the Project area, as shown in Table 14.

Table 14
Planned Developments in the Waikoloa Area

Planned Development	Existing Zoning	Planned Build-out (Housing Units)	Status
Villages of ʻĀina Leʻa	Multiple	2,462	Seeking Project District zoning
Bridge ʻĀina Leʻa, LLC	RA-1a	538	Unknown
Waikoloa Mauka	RA-1a	398	Unknown
Waikoloa Heights	RS-10	2,400	Initial Subdivision Increment Approved
Waikoloa Workforce Housing	RS-10	1,200	Construction started on initial subdivision infrastructure
Castle & Cook	RS-10/MF	756	Completed initial SF/MF increments
TOTAL		**7,754**	

Source: Table 5.2, Planned and Future Build-out in the Waikoloa Area, South Kohala Community Development Plan, Nov. 2008

The most apparent cumulative change in the socio-economic environment will be the visual impact as more urbanized areas replace underdeveloped or vacant land. There will be an increase in the resident population. These developments are expected to have long-term cumulative impacts, such as increased traffic and the need for more potable water. The cumulative impact of all the projects will also create the need for additional improvements to regional infrastructure. There will be an increased need for recreational areas and facilities and the demand for shoreline access will continue to grow. The demand for increased public services, including schools, police and fire protection, and medical services will increase in proportion to the population increases. However, development of these projects, as is the case for The Villages project, will be accompanied by appropriate mitigation measures to address impacts. Correspondingly, the accompanying economic development will expand employment opportunities for South Kohala residents and will provide additional tax revenue to the State and County governments to fund needed public services.

7.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Hawaiʻi Administrative Rule §11-200-17(k) requires the "identification of unavoidable impacts and the extent to which the action makes use of non-renewable resources during phases of the action, or irreversibly curtails the range of potential uses of the environment…" Resources that are irreversibly or irretrievably committed are those that cannot be recovered if the project is implemented.

The commitment of resources can be classified into 1) industrial-related resources, such as construction equipment, fuels, labor, and capital, and 2) project-related resources, such as natural resources and land.

Industrial-related resources will be utilized during construction of the Project's roads, water and wastewater systems, associated infrastructure, golf course, and residential and commercial buildings. When the Project is fully realized, the Property will be precluded from being developed for other uses or from being retained in its undeveloped, natural state.

The commitment of resources should also be assessed in light of anticipated community or regional benefits from the Project. The positive benefits discussed in detail in the EIS include, but are not limited to, direct and indirect socio-economic gains of employment, government revenues, and a range of housing units.

There will be a commitment of an estimated domestic water demand of 1.32 mgd by the Project. The sustainable yield of the ground water supply will not be significantly impacted, and improvements to the County's water system will create essential redundancy or backup for its users. Upgrading Waikoloa Village's ʻAuwaiakeakua wastewater plant from an R-2 to an R-1 quality level eliminates the current use of cesspools as a method of treatment.

The Project will also increase demand and contribute to regional demands on public services. The set-aside of land for schools and parks and the required fair share contributions for fire, police, and solid waste are intended to mitigate these impacts. In addition, there will be an increase in state and county tax revenues to help compensate government services.

At the time, construction of at least 385 affordable housing/workforce townhouse units has commenced. An average 1,200-foot wide buffer along the highway preserves an open space corridor and to some extent protects the sense of space.

7.4 Probable Adverse Environmental Effects That Cannot Be Avoided

Adverse impacts can be divided into short and long-term effects. Short-term effects are generally associated with construction and prevail only for the duration of the construction period. Long-term effects generally following completion of the improvements, related to either their existence or to the operation of the new facilities and are permanent. Effects that can be considered potentially adverse and unavoidable during the construction phase include air quality, noise quality, and traffic related impacts.

Construction impacts to air quality are relatively short-term and temporary. If mitigation measures are not provided, significant airborne, fugitive dust emissions will result from earth-moving, cement-mixing and rock-crushing activities. HAR Section 11-60.1-33, however, prohibits the generation of fugitive dust without taking reasonable precautions to limit these emissions. As a result, significant fugitive dust-generating activities will be minimized through the mitigation measures identified in Section 4.8 of this EIS. Vehicular emissions will also result from the combustion of fossil fuels in the operation of construction equipment and vehicles of commuting construction workers. These vehicular emissions are expected to be temporary, dispersed and of no measurable consequence to air quality in the area.

There will also be noise-related impacts from the operation of equipment and construction activities. The noise-related impacts that would be generated during the construction period

were studied as part of the air and noise quality impact studies conducted for this EIS and were projected to not exceed ambient noise levels when measured from the nearest receptor site (Mauna Lani Fire Station) and the residential areas of Mauna Lani and Waikoloa, which, being more than a mile away, are not expected to be adversely affected. The impact to noise quality would be limited to a temporary degradation of the acoustical environment in the immediate vicinity of the Project site. Additionally, there will be traffic related impacts, primarily related to the improvements to highway intersections that will generate temporary slowing of traffic in the area during the construction of these improvements.

After development, any long-term impact on air quality resulting from vehicular emissions from Project-related vehicular traffic should be insignificant. Worst-case concentrations of carbon monoxide are projected to remain well within both the State and Federal ambient air quality standards. Development of the project will result in the loss of a natural open space as well as impacts on the character of existing view-sheds. However, the planned setbacks from existing roadways and developed areas help to minimize these impacts. Furthermore, there will be an increase in structural density and human activity, as well as the replacement of the existing natural environment with a developed landscaped environment. Solid waste and wastewater will be generated on-site, and energy and water will be consumed.

7.5 Unresolved Issues

The consultation process for the project has yielded input from a broad range of agencies, private interest groups and individuals, and has been instrumental in identifying areas of particular concern. In most instances, these issues have been addressed through the planning of the project, as discussed in the previous sections. However, there are some issues that remain unresolved at this time pending further planning studies and design, and agency and community interaction. In most cases these issues involve the development of public services or infrastructure that will be implemented by or with the State or County agencies responsible for these services. In other cases they require further planning before a final determination can be made between alternative approaches.

7.5.1 Schools

The project will generate additional students that will attend area schools. In addressing this issue, the Applicant has designated 32 acres to be set aside as a school site, adjacent to the planned 16-acre active park so that there is an opportunity for use of the ball fields by the school, as required by a high school facility. However, it is not known at this time when the DOE would proceed with the school development on this site, or whether this facility would be a middle or high school facility. Planning for this facility is tied to the DOE's long-range planning for schools in the area and affected by the changing demands in the affected areas. The Applicant is in ongoing discussions with the DOE to insure that the planning for the project and proposed school site is in concert with DOE plans and responsive to the regional needs.

7.5.2 Police, Fire and EMS Services

Development of the ʻĀina Leʻa project will generate the need for additional police, fire safety, and emergency medical services in the area. While both Fire and EMS facilities and services are available at the Mauna Lani Fire Station located less than a mile from the project site, and the area is served by the South Kohala Police Station in Waimea and to a limited extent by the mini-substation located within Waikoloa Village, there will be a need to expand upon the capacity of these services in relation to the growing needs of this and other developments in the region. The monetary contributions required to address these facility and service requirements are met, in part, by the additional County taxes generated through the development and the fair-share contributions that are required as part of the Project's zoning approvals. Discussions will continue with the County Police and Fire Departments in order to reach agreement concerning the increased needs for these public services and potential contributions necessary towards meeting the needs.

7.5.3 Medical Services

Through interviews and discussions with community leaders and residents, the lack of medical facilities or community clinics with urgent care services was identified as one of the key community concerns. The Applicant has proposed that a privately operated urgent care medical service facility could be located in the commercial center of the project, and has had discussions with providers of these services who have expressed an interest in locating in the area. Such facilities can be tailored to meet the needs of the local residents and visitors alike. However, the timing, location and capacity of these facilities are not know at this time and will require ongoing follow-up with potential developers and service providers to ensure that their unique requirements can be accommodated in the planning and design of the commercial facilities.

7.5.4 Water Resource Development

Considerable study has been directed toward the analysis of the water demands of the project and the potential impact these demands and uses will have on the resources of the region. The potable water requirements are being met through an agreement with the Department of Water Supply to develop a series of wells at ʻOuli, including a back-up well, and a storage and transmission system that will be integrated as part of the DWS South Kohala System. Through this agreement, the Applicant's portion of the projected yield of these wells is more than sufficient to meet the projected needs of the Project.

The non-potable water requirements will be met through a combination of on-site brackish wells and the reuse of R-1 quality effluent from both nearby and on-site wastewater treatment plants. The water quality study prepared for the Project, however, indicates that while more than adequate to meet the needs of the project and existing uses, the available ground water resources within the mauka-makai corridor of the Project are likely insufficient to meet the projected needs of the future development in the region. To some extent the potential long-term demands on the available resources can be offset though wastewater reuse and implementing water conservation practices, as are proposed for the ʻĀina Leʻa project. Such practices will need to be coordinated and widespread in order to meet the full needs of the future development in a sustainable

manner. The Applicant has committed to work with regional and government stakeholders to develop a long-term resource conservation plan to address short- and long-term efforts towards resource sustainability.

7.5.5 Mauka-Makai Connector Road

A mauka-makai connector road connecting from Queen Kaʻahumanu Highway to Waikoloa Village is planned as part of the Project, generally along the alignment of the existing emergency access road shown on the Conceptual Master Plan. This road would serve as a second (northern) access to the Project and its construction is planned to coincide with completion of the first phase of development. The design and construction of this road would be financed as part of the planned Community Facilities District (CFD) financing, the bonds for which are expected to be issued in 2011. A decision on the location for the intersection with Queen Kaʻahumanu Highway and the road alignment, however, has yet to be made and is dependent upon further planning and design-related questions. The Applicant is involved in discussions with County and Waikoloa Community representatives on the location of this northern access road. Following a consensus with the County and Waikoloa Community representatives on the road location, further engineering study, and completion of the CFD financing, the Applicant can then move forward with the design and construction this road. Construction of the Mauka-Makai Connector Road is planned to be completed with the Phase 1 improvements by the end of 2012.

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8 CONSULTATION

The following agencies, organizations or individuals were consulted during the preparation of the EIS by email, telephone, or in person. This list does not include contacts made by other EIS study contributors, the landowner, or the planning consultant. Consulted parties who received the EISPN are listed in Chapter 10.

Federal

U.S. Army Corps of Engineers-Honolulu District

State

Department of Education
Office of Environmental Quality Control
Department of Land and Natural Resources-State Historic Preservation Division

County

Planning Department
Department of Environmental Management-Solid Waste
Fire Department
Police Department
Department of Water Supply

Utilities

Hawaiian Electric Light Company

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9 LIST OF PREPARERS

The EIS has been prepared by J M Leonard Planning, LLC, 1100 Ainalako Road, Hilo, Hawaiʻi, 96720.

Technical consultants were commissioned to prepare assessments of environmental factors for the Project. These consultants, their company affiliation, and area of study or assistance follow:

CONSULTANTS	AREA OF STUDY OR SPECIALTY
Archaeological Consultants of the Pacific	Archaeological Inventory Survey Data Recovery Plan
BD Neal & Associates	Air Quality Assessment
Evangeline J. Funk, PhD	Botanical Survey
Geometrician Associates	Flora/Fauna Studies
Haun & Associates	Archaeology Reconnaissance Survey Burial Treatment Plan Cultural Impact Assessment Addendum
Helen Wong Smith	Cultural Impact Assessment
Makani Resources, Constance R. Kiriu	EIS Preparation
PBR Hawaiʻi	Conceptual Master Planning
Phillip L. Bruner	Avifaunal and Feral Mammal Survey
SMS Research Marketing Services	Socio-Economic report
SSFM International	Traffic Impact Analysis Preliminary Engineering Master Drainage Report
Tom Nance, Water Resources Engineering	Water Resource Assessment
Y. Ebisu & Associates	Noise Quality Report

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10 COMMENTS AND RESPONSES ON THE EISPN

The following agencies, organizations and individuals were mailed the EISPN for comment and, where applicable, the date of the comment or request letter is listed. In several cases, only comment letters or emails were received. Substantive comment letters or emails and responses are located on the following pages.

	AGENCY/ORGANIZATION/INDIVIDUAL	DATE EISPN MAILED	COMMENT / REQUEST LETTER DATE
	FEDERAL		
1	US Army Corps of Engineers	12/03/2007	
2	US Fish and Wildlife Service	12/03/2007	
3	US Department of the Interior-U.S. Geological Survey, Pacific Islands Water Science Center	12/03/2007	12/11/2007
4	US National Marine Fisheries Service	12/03/2007	
5	US Natural Resources Conservation Service	12/03/2007	
	STATE		
6	Office of the Governor	12/03/2007	
7	Department of Agriculture	12/03/2007	
8	Department of Business, Economic Development and Tourism–Office of Planning	12/03/2007	
9	Department of Business, Economic Development and Tourism–Strategic Industries Division	12/03/2007	12/18/2007
10	Department of Business, Economic Development and Tourism-Hawai‘i Housing Finance and Development Corporation	12/03/2007	12/31/2007
11	Department of Health-Office of Environmental Quality Control	Via Planning Dept	
12	Department of Health-Environmental Health Admin	12/03/2007	1/07/2008
13	Office of Hawaiian Affairs	12/03/2007	1/02/2008
14	Department of Hawaiian Home Lands	12/03/2007	
15	Department of Labor and Industrial Relations	12/03/2007	
16	Department of Land and Natural Resources	12/03/2007	1/11/2008
17	Department of Land and Natural Resources – Historic Preservation Division	12/03/2007	
18	Department of Public Safety	12/03/2007	
19	Department of Transportation	12/03/2007	12/28/2007
20	State Land Use Commission	12/03/2007	
21	University of Hawai‘i–Environmental Center	12/03/2007	
22	University of Hawai‘i–Water Resources Research Center	12/03/2007	
	HAWAI‘I COUNTY		
23	Office of the Mayor	12/03/2007	

	AGENCY/ORGANIZATION/INDIVIDUAL	DATE EISPN MAILED	COMMENT / REQUEST LETTER DATE
24	Planning Department	11/07/2007	
25	Department of Public Works–Building Division	12/03/2007	
26	Department of Public Works–Engineering Division	12/03/2007	
27	Department of Public Works–Highways Maintenance Division	12/03/2007	
28	Department of Public Works–Traffic Division	12/03/2007	
29	Department of Environmental Management–Solid Waste Division	12/03/2007	12/07/2007
30	Department of Environmental Management–Wastewater Division	12/03/2007	12/07/2007
31	Department of Finance–Real Property Tax Office	12/03/2007	
32	Fire Department	12/03/2007	12/12/2007
33	Office of Housing and Community Development	12/03/2007	
34	Mass Transit Agency	12/03/2007	
35	Department of Parks and Recreation	12/03/2007	1/17/2008
36	Police Department	12/03/2007	
37	Department of Research and Development	12/03/2007	
38	Department of Water Supply	12/03/2007	1/08/2008
39	South Kohala Community Development Plan Steering Committee	12/03/2007	
	ORGANIZATIONS, INDIVIDUALS AND INTERESTED PARTIES		
40	Hawaiʻi Island Community Development Corporation	12/03/2007	
41	Hawaiʻi Leeward Planning Conference	12/03/2007	
42	Kona-Kohala Chamber of Commerce	12/03/2007	
43	Mauna Kea Community Association		1/7/2008
44	Mauna Lani Resort	12/03/2007	
45	Mauna Lani Resort Association	12/03/2007	12/17/2007
46	Mauna Lani Homeowners Association	12/03/2007	
47	Puakō Community Association	12/03/2007	1/03/2008
48	Waikoloa Community Development Corporation	12/03/2007	
49	Waikoloa Land Company	12/03/2007	
50	Waikoloa Outdoor Circle	12/03/2007	
51	Waikoloa Village Association	12/03/2007	
	LIBRARIES		
52	Hawaiʻi Documents Center, Hawaiʻi State Library	12/03/2007	
53	Bond Memorial Library	12/03/2007	
54	Thelma Parker Memorial Library	12/03/2007	
55	Kailua-Kona Library	12/03/2007	
	NEWS MEDIA		
56	Hawaiʻi Tribune-Herald	12/03/2007	

	AGENCY/ORGANIZATION/INDIVIDUAL	DATE EISPN MAILED	COMMENT / REQUEST LETTER DATE
57	West Hawaiʻi Today	12/03/2007	
	ELECTED OFFICIALS		
58	State Senator Paul Whalen, District 3	12/03/2007	
59	State House Representative Cindy Evans, District 7	12/03/2007	
60	County Council Chair Pete Hoffmann, District 9	12/03/2007	
	UTILITIES		
61	Hawaiian Electric Light Company	12/03/2007	
62	Oceanic Time-Warner	12/03/2007	
63	Hawaiian Telcom	12/03/2007	
64	Waikoloa Water Company	12/03/2007	
	OTHER ORGANIZATIONS/INDIVIDUALS RECEIVING EISPN OR COMMENTING ON EISPN OR PROJECT		
65	Roger and Diane Kanealii (via email)		12/07/2007
66	Jennifer Grossart (via email)		12/19/2007
67	Michael Reimer, Ph.D. (via email)		12/19/2007
68	Betty Nanimaeʻole Springer (via email)		12/21/2007
69	Catherine Rosasco Mitchell (via email)		12/31/2007
70	Deborah L. Chang, Island Transitions LLC		1/07/2008
71	Jason Masters (via email)	12/12/2007	
72	Environment Hawaiʻi	12/22/2007	
73	Kirk McKinney (via email)	12/13/2007	
74	Race A Randle (via email)	12/17/2007	

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ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

CORRESPONDENCE

January 7, 2008

Planning Department
County of Hawaii
101 Pauahi Street, Suite 3
Hilo, Hawaii 96742

John K. Baldwin
Bridge Aina Le`a, LLC
2500 Kalakaua Avenue, # 2404
Honolulu, Hawaii 96815

Constance R. Kiriu
Makani Resources
195 Makani Circle
Hilo, Hawaii 96720

Re: EISPN for Villages of `Aina Le`a, Waikoloa, South Kohala, Island of Hawai`i

Dear Sir or Madam:

Mauna Kea Community Association ("MKCA") is the duly constituted master association for the Mauna Kea Resort's residential property owners. Many of the members of MKCA are long-term residents and/or property owners in the West Hawaii area and frequent users of Ka`ahumanu Highway, Kawaihae Road, and other public roadways in the area. The members of MKCA are also recreational users of beaches, trails, parks, and other public and private recreational resources and facilities in the area.

The purpose of this letter is to request, pursuant to Hawaii Administrative Rules § 11-200-15(b) that MKCA become a consulting party to any Environmental Assessment or Environmental Impact Statement relative to the proposed "Villages of `Aina Le`a" project and for other development in TMK Nos. (3) 6-8-001: 25, 36, 37, 38, 39, and 40.

Please direct all relevant correspondence, notices, hearing notices, or other information relative to the EIS and any and all land use or permit applications relative to the above-referenced project to:

Mauna Kea Community Association
c/o Kathy Cooley
Certified Management, Inc.
75-169 Hualalai Road
Kailua-Kona, Hawaii 96740-1742

Thank you for your attention to this matter. Please contact me if you have questions or require additional information.

Very truly yours,

MAUNA KEA COMMUNITY ASSOCIATION

By: _____

Its President

cc: Sidney Fuke

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Mauna Kea Community Association
c/o Kathy Cooley
Certified Management, Inc.
75-169 Hualalai Road
Kailua-Kona, HI 96740-1742

Dear Ms. Cooley:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your letter dated January 7, 2008, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your request.

The Mauna Kea Community Association will be recognized as a Consulting Party and included in the EIS process.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ʻĀina Leʻa Development

Roy A. Vitousek III
Direct Line: (808) 329-5811
Direct Fax: (808) 326-1175
E-mail: rvitousek@cades.com

December 17, 2007

Planning Department
County of Hawaii
101 Pauahi Street, Suite 3
Hilo, Hawaii 96742

John K. Baldwin
Bridge Aina Le`a, LLC
2500 Kalakaua Avenue, # 2404
Honolulu, Hawaii 96815

Constance R. Kiriu
Makani Resources
195 Makani Circle
Hilo, Hawaii 96720

Re: EISPN for Villages of `Aina Le`a, Waikoloa, South Kohala, Island of Hawai`i

Dear Sir or Madam:

The purpose of this letter is to request, pursuant to Hawaii Administrative Rules § 11-200-15(b) that the Mauna Lani Resort Association ("MLRA") become a consulting part to any Environmental Assessment or Environmental Impact Statement relative to the proposed "Villages of `Aina Le`a" project and for other development in TMK Nos. (3) 6-8-001: 25, 36, 37, 38, 39, and 40.

Please direct all relevant correspondence, notices, hearing notices, and the like to:

Sandra A. Patton
Resort Association Partners, LLC
68-150 Ho`ohana Street
Kohala Coast, Hawaii 96743

and

Roy A. Vitousek III, Esq.
Cades Schutte LLP
75-170 Hualalai Rd., Ste. B-303
Kailua-Kona, Hawaii 96740

Thank you for your attention to this matter. Please contact me if you have questions or require additional information.

Very truly yours,

Roy A. Vitousek III
for
CADES SCHUTTE
A Limited Liability Law Partnership

RAV:bah

cc: Sandra A. Patton
Sidney Fuke

ImanageDB:805837.1

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Sandra A. Patton
Resort Association Partners, LLC
68-150 Hoʻohana Street
Kohala Coast, HI 96743

Roy A. Vitousek III, Esq.
Cades Schutte LLP
75-170 Hualalai Rd., Ste. B-303
Kailua-Kona, HI 96740

Dear Ms. Patton and Mr. Vitousek:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your letter dated December 17, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your request.

The Mauna Lani Resort Association will be recognized as a Consulting Party and included in the EIS process.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ʻĀina Leʻa Development

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

HRD07/3409

January 2, 2008

Constance Kiriu
Makani Resources
195 Makani Circle
Hilo, HI 96720

RE: Request for comments on the Environmental Impact Statement Preparation Notice for the Villages of 'Āina Le'a, Waikōloa, Hawai'i Island, TMKs: (3) 6-8-001:25, 36, 37, 38, 39, 40

Dear Constance Kiriu,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-referenced Environmental Impact Statement Preparation Notice for the Villages of 'Āina Le'a, a proposed 3,000-acre development project featuring five golf courses; a golf academy; lodge; 2,406 multi-family and single family units; 863 rural-agricultural lots; and commercial features. OHA offers the following comments.

We request the applicant's assurances that should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during the development of the project, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Furthermore, we request the applicant to analyze the effect the project will have on Native Hawaiian traditional and customary rights and offer appropriate mitigation measures, in accordance with Ka Pa'akai O Ka 'Āina v. Land Use Comm'n, 94 Haw. 31, 47 (2000). We ask the applicant to consult with Native Hawaiian cultural practitioners about the project. We also look forward to reviewing the project's burial treatment plans and any other archaeological and historical resource plans associated with the development.

We appreciate the applicant's plan to establish a five-acre preserve for the endangered Ko'oloa'ula. However, we ask for more detail about the preserve, its interpretation and public education elements, and how it will be managed and maintained. In addition, the fact that 60,000 *ophioglossum consinnum* plants have been identified on the project site may indicate that the area represents an important habitat for this fern that the U.S. Fish and Wildlife Service has said is eligible to be placed on the "proposed endangered species" list. As such, we ask that this species' habitat be preserved and protected to the highest extent possible. In addition, we support the applicant's plan of using the fern in landscaping for the project.

Thank you for the opportunity to comment. We look forward to reviewing and commenting on the Draft Environmental Impact Statement for this project when it becomes available. If you have further questions, please contact Sterling Wong (808) 594-0248 or e-mail him at sterlingw@oha.org.

Sincerely,

Clyde W. Nāmu'o
Administrator

C: Christopher J. Yuen, Planning Director
County of Hawai'i Planning Department
101 Pauahi Street, Suite 3
Hilo, HI 96720

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Clyde W. Nāmuʻo
Administrator
Office of Hawaiian Affairs
711 Kapiʻòlani Boulevard, Suite 500
Honolulu, HI 96813

Dear Mr. Nāmuʻo:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your letter dated January 2, 2008, regarding the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your request.

Cease work. The Applicant will assure that contractors will cease work in the affected area if iwi kūpuna or Native Hawaiian cultural or traditional deposits are found during the Project's development. Further, appropriate agencies will be contacted pursuant to applicable law. This stop-work requirement is currently a condition of zoning Ordinance No. 96-153, and is expected to be included in a Project District zoning ordinance, if approved.

Cultural Impact Assessment. A *Cultural Impact Assessment for the Ahupuaa of Waikoloa, District of South Kohala* dated August 2007 was prepared by Helen Wong Smith, MLIS, CA for the Applicant. The *Assessment* concluded that the Project would have minimal impact on Hawaiian cultural resources, beliefs and practices. The *Assessment* is found in Appendix L, and cultural resources discussion occurs in Chapter 4.3.

Burial. As noted in the Draft EIS, the burial (Site 15033) is located on adjacent property owned by Bridge, and located approximately 1,000 feet mauka of the Applicant's property. As a water utility corridor is planned across the Bridge property, providing a water utility connection from Waikoloa Village to the Project, both the water utility corridor and Site 15033 were recently surveyed to determine their precise location. The Site was found to be approximately 900 feet from the utility corridor at its closest point. Thus, the Project will not affect Site 15033.

Archaeological and Historical Resources. A discussion and analysis of the archaeological and historical resources of the area is included in Chapter 4.2 and Appendices I, J, and K of the Draft EIS.

Botanical Preserve. Evangeline Funk prepared a preliminary *Botanical Preservation and Mitigation Plan* for the *Abutilon menziesii* or the red ʻilima. Ms. Funk was not able to locate the red ʻilima because of three years of severe drought and wind conditions at the plant's habitat. The Plan recommended a 500-foot buffer area around the location of the red ʻilima and further site follow-up when the weather improves. When and if the red ʻilima plants are found, a final preservation and mitigation plan would be prepared incorporating recommendations of the U.S. Fish and Wildlife Service.

Ms. Funk also stated that the *Ophioglossum concinnum* (fern) had been de-listed as an endangered or threatened species, and would not require a preservation plan.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ʻĀina Leʻa Development

YAHOO! MAIL Classic

Print - Close Window

From: "Engelhard, Patricia" <PENGELHARD@co.hawaii.hi.us>

To: "'makaniresources@yahoo.com'" <makaniresources@yahoo.com>

CC: "Komata, James" <JKOMATA@co.hawaii.hi.us>, "Mizuno, Pamela" <PMizuno@co.hawaii.hi.us>

Subject: Prep Notice for EIS-Villages of 'Aina Le'a - TMK 3-6-8-01:25,36,3 7,38,39,40

Date: Thu, 17 Jan 2008 10:49:12 -1000

Hi Connie,

We thought we were out of the woods on this one because we only recently talked with Sidney Fuke and Aaron Chung about this project as it relates to a community center proposed by the folks in Waikoloa. The comment date has passed, we know, but we're providing our comments anyway. In reading page 31 of your submittal, James noticed this statement: "A 10 acre active park and a 16-acre passive park, which will be dedicated to the County are planned within the Project." Sid never mentioned any passive park, probably because he knows we don't do passive parks. The County is in charge of active recreation, as you know. So we don't want a passive park and would object to that. If they would like to do 26 acres of active parks that would be fine and we need more discussion about that prospect.

Thanks for reading this.

Pat Engelhard

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Robert A. Fitzgerald, Director
Department of Parks and Recreation
25 Aupuni Street
Hilo, HI 96720

Dear Mr. Fitzgerald:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

This is in response to an email from former Director Patricia Engelhard dated January 17, 2008, regarding the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your request.

We have noted the Department of Parks and Recreation's objection to passive parks, preferring instead 26 acres of active parks. However the requirement for a 16-acre passive park and a 10-acre active park was a condition of zoning Ordinance No. 96-153. As such, the parks will be retained by the landowner or a future homeowner-type of association unless and until the County wishes to take them over.

The Applicant has discussed with the Department of Parks and Recreation the possibility of locating a community center on its property, adjacent to the area of the active park, to supplement the recreational facilities in the district. Additionally, the Applicant is proposing to expand the active park area to 16 acres.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

cc: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ‘Āina Le‘a Development

Puako
COMMUNITY ASSOCIATION

January 3, 2008

Mr. Christopher J. Yuen
Planning Director
County of Hawaii
101 Pauahi Street
Hilo, Hawaii 96720

Mr. Sidney Fuke
Planning Consultant
100 Pauahi Street, Suite 212
Hilo, Hawaii 96720

Ms. Constance R. Kiriu
Makani Resources
195 Makani Circle
Hilo, Hawaii 96720

John K. Baldwin, Managing Director
Bridge Aina Lea, LLC
250 Kalakaua Avenue, #2404
Honolulu, Hawaii 96815

Re: Villages of Aina Lea, EIS Preparation Notice (TMK: (3) 6-8-001: 25, 36, 37, 38, 39, 40

Dear Madame and Sirs:

The Puako Community Association requests that it be recognized as a Consulting Party in the above matter. Please continue to keep us informed about the development and forward the EIS Draft when available.

Aloha,

Robert Shallenberger
President

Puako Community Association, P.O. Box 44345, Kawaihae, HI 96743

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Robert Shallenberger
President
Puako Community Association
P.O. Box 44345
Kawaihae, HI 96743

Dear Mr. Shallenberger:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your letter dated January 3, 2008, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your request.

The Puako Community Association will be recognized as a Consulting Party and included in the EIS process.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ʻĀina Leʻa Development

United States Department of the Interior

U.S. GEOLOGICAL SURVEY

Pacific Islands Water Science Center
677 Ala Moana Blvd., Suite 415
Honolulu, HI 96813
Phone: (808) 587-2400/Fax: (808) 587-2401

December 11, 2007

Mr. John K. Baldwin, Managing Member
Bridge Aina Lea, LLC
2500 Kalakaua Avenue, #2404
Honolulu, Hawai'i 96815

Dear Mr. Baldwin:

Subject: Environmental Impact Statement Preparation Notice (EISPN)
Village of 'Āina Le'
Island of Hawai'i, South Kohala District
TMK: (3) 6-8-001:25, 36, 37, 38, 39, 40

Thank you for forwarding the subject EISPN for review and comment by the staff of the U.S. Geological Survey, Pacific Islands Water Science Center. We regret however, that due to prior commitments and lack of available staff, we are unable to review this document.

We appreciate the opportunity to participate in the review process.

Sincerely,

Gordon Tribble
Center Director

cc: Ms. Constance Kiriu
Makani Resources
195 Makani Circle
Hilo, Hawai'i 96720

Mr. Christopher J. Yuen, Planning Director
County of Hawai'i Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Gordon Tribble, Center Director
Pacific Islands Water Science Center
U.S. Geological Survey
United States Department of the Interior
677 Ala Moana Blvd., Suite 415
Honolulu, Hawai‘i 96813

Dear Mr. Tribble:

SUBJECT: Comment to the EISPN, Villages of ‘Āina Le‘a, Waikoloa, South Kohala, Island of Hawai‘i, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your letter dated December 11, 2007 in response to the Environmental Impact Statement Preparation Notice for this project. We regret that you were unable to review the EISPN due to prior commitments and lack of available staff.

Please note that the applicant for the ‘Āina Le‘a development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ‘Āina Le‘a Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we would like to thank you for taking the time to respond to the EISPN. Your letter will be included in the EIS. We look forward to any comments that you and your office might have on the Draft EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ‘Āina Le‘a Development

ISLAND
TRANSITIONS LLC

January 7, 2008

Mr. John K. Baldwin
Managing Member
Bridge Aina Le`a, LLC
2500 Kalākaua Ave., No. 2404
Hon., HI 96815

SUBJECT: EIS Preparation Notice for Villages of `Āina Le`a

Dear Mr. Baldwin:

As you prepare the above-referenced Draft Environmental Impact Statement, please research as part of your cultural resources assessment whether a portion of a major, historic *mauka-makai* trail is located on the subject properties. The trail was used to drive cattle from the ranch formerly in Pu`u Anahulu and Pu`u Wa`awa`a, North Kona District, all the way down to Puakō and Kawaihae. Mr. Sonny Keākealani, currently a resident of Waimea, has personally used that trail when he worked for that ranch and would be the most knowledgeable about the trail's location and historic use. You may contact me if you need assistance in contacting Mr. Keākealani.

The fascinating history of ranching on the island of Hawai`i includes a special legacy of long-distance trails that are worthy of preservation, interpretation, and use. Historic trails and routes can be successfully integrated into new developments, especially when identified early in the planning process.

Thank you for your consideration of my comments.

Sincerely,

Deborah L. Chang

c: Hi. County Planning Dept.
Makani Resources
OEQC
Nā Ala Hele

Deborah L. Chang, LSW · *Principal Planner* · *Specializing In Trails & Access Issues*
P.O. Box 202 · Pa`auilo, Hi 96776-0202 · (808) 776-1516 · hkulaiwi@yahoo.com

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Deborah Chang
Island Transitions LLC
P.O. Box 202
Pa‘auilo, HI 96776-0202

Dear Ms. Chang:

SUBJECT: Comment to the EISPN, Villages of ‘Āina Le‘a, Waikoloa, South Kohala, Island of Hawai‘i, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your letter dated January 7, 2008, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ‘Āina Le‘a development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ‘Āina Le‘a Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comment requesting research into the possible existence of a historic cattle trail on the properties.

An *Addendum to the Cultural Impact Assessment* for the project was prepared by Helen Wong Smith, MLIS, CA, in July 2009. Ms. Wong Smith and archaeologist James Head were accompanied by Sonny Keakealani to the Puakō Gate near the Queen Ka‘ahumanu Highway and then mauka along Highway 19 to a flat area beneath Pu‘u Ku‘aīniho where cattle were rounded prior to being driven to the Puakō Gate. A possible ahu (or cairn), which may have marked the cattle trail, was also located in the area. Although Mr. Keakealani had not traversed the trail himself, he identified the trail through the recollections from his father, Robert Keakealani, Sr.

Mr. Keakealani recommended returning to the plain after a fire when the lack of grass could reveal the cattle trail. In the meantime, he suggested Ms. Wong Smith and Mr. Head follow the fence line from the Puakō Gate to determine the full extent of the cattle trail. GPS coordinates were taken along the fence line and mapped in relation to the subject properties.

DW ‘Āina Le‘a, LLC will incorporate portions of the historic cattle trail into the design of the project components where possible. The discussion about the historic cattle trail occurs in Chapter 4.4 of the EIS. The Cultural Impact Assessment and Addendum are found in Appendix L.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ʻĀina Leʻa Development

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
SOLID WASTE DIVISION

COUNTY OF HAWAII – 108 RAILROAD AVENUE – HILO, HI 96720
HILO (808) 961-8514 WAIMEA (808) 887-3018 KONA (808) 327-3507
Fax: 961-8553 887-3025 327-3506

DATE: December 7, 2007

TO: Bobby Jean Leithead-Todd
DIRECTOR

FROM: Michael Dworsky
CHIEF

SUBJECT: Prep Notice for an Environmental Impact Statement Villages of `Ãina Le`a (TMK (3) 6-8-001:25, 36, 37, 38, 39, 40)

Please incorporate the comments from the Solid Waste Division into the appropriate response from the Department to the Applicant, Accepting Authority and EIS Preparer. They are as follows:

Applicant
Bridge Aina Lea, LLC
2500 Kalakaua Ave., #2404
Honolulu, HI 96815
John K. Baldwin, Managing Member

Accepting Authority
County of Hawai`i Planning Department
101 Pauahi Street, Suite 3
Hilo, HI 96720
Christopher J. Yuen, Planning Director

EIS Preparer
Constance Kiriu
Makani Resources
195 Makani Circle
Hilo, HI 96720

The Solid Waste Division has reviewed the subject request and has the following comments to offer:

The proposed site is to develop 2,406 residential units, 863 residential-agricultural lots, and 385 affordable housing units to be built within 3,000 acres of land. A project of this size will require a Solid Waste Management Plan (enclosed). A development of this size will need to address the collection of solid waste within the development. The current transfer station at Puako is not sized to accept an additional load of over 2,400 vehicles hauling individual residential garbage and recyclables. A development of the size proposed needs to address how a curbside recycling and garbage collection program utilizing automated mechanical trucks can be instituted to serve the planned development.

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- A Solid Waste Management Plan will need to be prepared and submitted in accordance with the enclosed 'Solid Waste Management Plan – Guideline'.
- Commercial operations may not use transfer stations for disposal.
- The plan should maximize the principles of recycling, reuse, and reduce in lieu of putting materials in the Landfill.
- Ample room should be provided for recycling.

enclosures

Harry Kim
Mayor

Bobby Jean Leithead-Todd
Director

Nelson Ho
Deputy Director

County of Hawai'i
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
25 Aupuni Street • Hilo, Hawai'i 96720-4252
(808) 961-8083 • Fax (808) 961-8086

September 14, 2007

SOLID WASTE MANAGEMENT PLAN
Guidelines

INTENT AND PURPOSE

This is to establish guidelines for reviewing solid waste management plans, for which special conditions are placed on developments. The solid waste management plan will be used to: (1) encourage recycling and recycling programs, (2) predict the waste generated by the proposed development to anticipate the loading on County transfer stations, landfills and recycling facilities, and (3) predict the additional traffic being generated because of waste and recycling transfers.

REPORT

The consultant's report will contain the following:

1. Description of the project and the potential waste it may be generating: i.e. analysis of anticipated waste volume and composition. This includes waste generated during the construction and operational phases. Greenwastes will be included in this report for both construction grubbing and future operational landscape maintenance.

2. Description and location of the possible sites for waste disposal or recycling. We will not allow the use of the County transfer stations for any commercial development; commercial development as defined under the policies of the Department of Environmental Management Solid Waste Division.

3. Since the Department of Environmental Management promotes recycling, indicate onsite source separation facilities by waste stream; i.e. source separation bins of glass, metal, plastic, cardboard, aluminum, etc. Provide ample and equal space for rubbish and recycling.

4. Identification of the proposed disposal site and transportation methods for the various components of the waste disposal and recycling system, including the number of truck traffic and the route that truck will be using to transport the waste and recycled materials.

5. The report will include any impacts to County waste and recycling facilities, and the appropriate mitigation measures. All recommendations and mitigation measures will be addressed.

6. Description of the waste reduction component that analyzes techniques to be employed to achieve a reduction goal.

7. Analysis will be based on the highest potential use or zoning of the development.

REQUIREMENTS AND CONDITIONS

1. A solid waste management plan will be done for all commercial developments, as defined under the policies of the Department of Environmental Management, Solid Waste Division.

2. We will require the developer to provide or resolve all recommendations and mitigation measures as outlined in the report; besides any conditions placed on the applicant by the Department of Environmental Management.

3. A licensed environmental or civil engineer will draft and certify the solid waste management plan.

If you have need additional information, please contact Michael Dworsky, P.E., Solid Waste Division Chief at 808-961-8515.

CONCUR:

BJ. Leithead-Todd

Bobby Jean Leithead-Todd
DIRECTOR

10/13/03
Revised 09/14/07

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Lono Tyson, Director
Department of Environmental Management
County of Hawai‘i
108 Railroad Avenue
Hilo, Hawaii 96720

Attention: Michael Dworsky

Dear Mr Tyson:

SUBJECT: Comment to the EISPN, Villages of ‘Āina Le‘a, Waikoloa, South Kohala, Island of Hawai‘i, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for forwarding a copy of Solid Waste Division Chief Michael Dworsky’s memorandum dated December 11, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ‘Āina Le‘a development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ‘Āina Le‘a Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

The Applicant will prepare a Solid Waste Management Plan in accordance with the County’s Solid Waste Management Plan’s Guidelines for the Department’s review and approval. The project’s Solid Waste Management Plan will address the collection of solid waste within the development, including how a curbside recycling and garbage collection program utilizing automated mechanical trucks might be instituted to serve the development. The project’s Solid Waste Management Plan will maximize the principles of recycling, reuse, and reduce in order to decrease the amount of materials placed in the Landfill. The Plan will also restrict commercial operations from using transfer stations for trash disposal and will encourage ample space for recycling.

The Applicant is required by Ordinance No. 96-153 to contribute its fair share contribution towards solid waste facilities in the amount of $99.29 per multiple-family residential unit and $145.62 per single-family residential unit. These amounts are required to be adjusted based on the percentage change in the Honolulu Consumer Price Index (HCPI). If the Project District Zoning is approved, it is anticipated that a fair share contribution will be required for solid waste services. The Draft EIS contains a discussion in Section 4.11.3 about the Puako Transfer Station and the required fair share contribution.

Thank you for taking the time to respond to the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ‘Āina Le‘a Development

Harry Kim
Mayor

Bobby Jean Leithead-Todd
Director

Nelson Ho
Deputy Director

County of Hawai'i

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
25 Aupuni Street • Hilo, Hawai'i 96720
(808) 961-8083 · Fax (808) 961-8086
http://co.Hawai'i.hi.us/directory/dir_envmng.htm

December 7, 2007

Mr. John K. Baldwin
Bride Aina Lea, LLC
2500 Kalakaua Avenue, #2404
Honolulu, Hawai'i 96815

SUBJECT: **Preparation Notice for an Environmental Impact Statement**
Villages of Ainalea, South Kohala District, Hawai'i
TMK: (3) 6-8-001-25, 36, 37, 38, 39, 40

Dear Mr. Baldwin,

Based on our review of the subject notice, we offer the following comments:

> If applicant decides to construct a wastewater treatment plant (WWTP) on site, no liquid wastewater sludge generated from the subject development can be disposed of at the County's Kealakehe Wastewater Treatment Plant (WWTP). Applicant must either dispose liquid sludge elsewhere or construct a sludge-handling facility to dispose sludge in a municipal landfill. Kealakehe WWTP is experiencing heavy sludge accumulation within the plant that is having an adverse impact on our treated effluent. The sludge accumulation is caused primarily from liquid waste sludge being hauled to the plant from existing private individual wastewater systems and private treatment plants located throughout the west side of Big Island.

Should you have any questions or comments, please do not hesitate to call me at 808-961-8513.

Sincerely,

BERT SAITO, P.E.
Division Chief

cc: Bobby Jean Leithead Todd, Director, Department of Environmental Management

County of Hawai'i is an Equal Opportunity Provider and Employer.

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Lono Tyson, Director
Department of Environmental Management
County of Hawai‘i
108 Railroad Avenue
Hilo, Hawaii 96720

Attention: Bert Saito, P.E., Division Chief

Dear Mr. Tyson:

SUBJECT: Comment to the EISPN, Villages of ‘Āina Le‘a, Waikoloa, South Kohala, Island of Hawai‘i, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your department’s comments dated December 7, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ‘Āina Le‘a development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ‘Āina Le‘a Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

The Applicant plans to construct the Project’s wastewater treatment plant on-site. Regarding your comments about the disposal of the WWTP solids, the proposed membrane bioreactor treatment facility is expected to generate minimal liquid sludge. What little liquid sludge is produced will be disposed of in a manner meeting Department of Environmental Management and State Department of Health regulations and requirements. A full discussion of the wastewater system proposed for the Project is found in Section 2.3.9.3 and 4.11.2 of the Draft EIS.

Thank you for taking the time to respond to the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ʻĀina Leʻa Development

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

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

In reply, please refer to:
EPO-07-225

January 7, 2008

Ms. Constance Kiriu
Makani Resources
195 Makani Circle
Hilo, Hawaii 96720

Dear Ms. Kiriu:

SUBJECT: Environmental Impact Statement Preparation Notice for Villages of Aina Lea Waikoloa, South Kohala, Island of Hawaii, Hawaii
TMK: (3) 6-8-001: 025, 036, 037, 038, 039 and 040

Thank you for allowing us to review and comment on the project. The document was routed to the various branches of the Department of Health (DOH) Environmental Health Administration. We have the following Safe Drinking Water Branch, Wastewater Branch and General comments.

Save Drinking Water Branch

1. We understand that the applicant, Bridge Aina Le`a, is proposing to develop approximately 3,000 acres in the Waikoloa area consisting of: Infrastructure improvements, subdivision of property, five golf courses, a golf academy, a 40-unit lodge, up to 3,269 multi-family and single-family units, 863 agricultural lots, commercial uses, and other related improvements. At this time, the applicant has stated that the proposed water system will be constructed per county standards and will be dedicated to the Hawaii County Department of Water Supply.

2. All projects that propose the development of new sources of drinking water serving a public water system must comply with the terms of Section 11-20-29 of the Hawaii Administrative Rules, Title 11, Chapter 20, titled "Rules Relating to Potable Water Systems." This section requires that all new public water system sources be approved by the Director of Health prior to its use. Such approval is based primarily upon the submission of a satisfactory engineering report which addresses the requirements set in Section 11-20-29.

3. The engineering report must identify all potential sources of contamination and evaluate alternative control measures which could be implemented to reduce or eliminate the potential for contamination, including treatment of the water source. In addition, water quality analyses for all regulated contaminants, performed by a laboratory certified by the State Laboratories Division of the State of Hawaii, must be submitted as part of the report to demonstrate compliance with all drinking water standards. Additional parameters may

be required by the Director of Health for this submittal or additional tests required upon his or her review of the information submitted.

4. Furthermore, all sources of public water systems must undergo a source water assessment which will delineate a source water protection area. This process is preliminary to the creation of a source water protection plan for that source and activities which will take place to protect the source of drinking water.

5. The document does mention that the applicant plans to use brackish and/or reclaimed water for non-potable water uses such as irrigation. If the applicant proposes the use of dual water systems or the use of a non-potable water system in proximity to an existing potable water system to meet irrigation or other needs, he or she must be careful in the design and operation of these systems to prevent the cross-connection of these systems and prevent the possibility of backflow of water from the non-potable system to the potable system. The two systems must be clearly labeled and physically separated by air gaps or reduced pressure principle backflow prevention devices to avoid contaminating the potable water supply. In addition, backflow devices must be tested periodically to assure their proper operation. Further, all non-potable spigots and irrigated areas should be clearly labeled with warning signs to prevent inadvertent consumption of non-potable water. Compliance with Hawaii Administrative Rules, Title 11, Chapter 11-21 titled "Cross Connection and Backflow Control" is required.

Should you have any questions regarding the drinking water system, please contact Mr. Kumar Bhagavan of the SDWB Compliance Section at 586-4258 in Honolulu.

Underground Injection Control

Injection wells used for the subsurface disposal of wastewater, sewage effluent, or surface runoff are subject to environmental regulation and permitting under Hawaii Administrative Rules, Title 11, Chapter 23, titled "Underground Injection Control" (UIC). The Department of Health's approval must be first obtained before any injection well construction commences. A UIC permit must be issued before any injection well operation occurs. Authorization to use an injection well is granted when a UIC permit is issued to the injection well facility. The UIC permit contains discharge and operating limitations, monitoring and reporting requirements, and other facility management and operational conditions. A completed UIC permit-application form is needed to apply for a UIC permit.

A UIC permit can have a valid duration of up to five years. Permit renewal is needed to keep an expiring permit valid for another term.

Questions about UIC may be directed to Mr. Chauncey Hew at 586-4258.

Wastewater Branch

The document proposes to develop a 3,000 acre parcel in South Kohala with infrastructure improvements, subdivision of property, five (5) golf courses, gold academy, 40-unit lodge, up to 3,269 multi-family and single-family units, 863 rural-agricultural lots, commercial uses, and related improvements/uses.

The project is located in the both the Non-Critical Wastewater Disposal Area (Non-CWDA) and Five (5) Acre Lot Exception Area.

Amendments to Hawaii Revised Statutes (HRS) include language which triggers the need of an environmental assessment. One of the triggers in Section 343-5a is the construction of a wastewater treatment unit serving 50 dwelling units or more. If a new wastewater treatment plant (WWTP) is proposed, the EIS should contain sufficient information on this matter such as that the requirements of HRS 343 are addressed.

The current design capacity of the Mauna Lani Resort private WWTP is 0.750 MGD. The existing Mauna Lani WWTP is insufficient to handle the proposed 1.86 MGD flow for this development. Therefore, the Department cannot concur with the EIS notice until sufficient information is provided regarding the treatment and disposal of wastewater.

All wastewater plans must meet Department's Rules, HAR Chapter 11-62, "Wastewater Systems." We do reserve the right to review the detailed wastewater plans for conformance to applicable rules. If you have any questions, please contact the Planning & Design Section of the Wastewater Branch at 586-4294.

General

We strongly recommend that you review all of the Standard Comments on our website: www.state.hi.us/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this project should be adhered to.

If there are any questions about these comments please contact Jiacai Liu with the Environmental Planning Office at 586-4346.

Sincerely,

KELVIN H. SUNADA, MANAGER
Environmental Planning Office

c: EPO
CWB
WWB

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Kelvin H. Sunada, Manager
Environmental Planning Office
State Department of Health
P.O. Box 3378
Honolulu, HI 96801-3378

Dear Mr. Sunada:

SUBJECT: EISPN for Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi

Thank you for your letter dated January 7, 2008, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

Safe Drinking Water

The development of new sources of drinking water serving the County's public water system will comply with Section 11-20-29, Hawaii Administrative Rules (HAR), Title 11, Chapter 20, titled "Rules Relating to Potable Water Systems."

An engineering report addressing the requirements set forth in Section 11-20-29 will be submitted to the Department of Health for its approval. The report will identify all potential sources of contamination and will evaluate alternative control measures that could be implemented to reduce or eliminate the potential for contamination. Water quality analyses will be submitted as part of the report to demonstrate compliance with all drinking water standards. Additionally, a source water assessment will be undertaken as part of a Source Water Protection Plan to delineate a source water protection area.

The dual water system for potable and non-potable water will be designed and operated to prevent cross-connection and possible contamination of the potable system. All non-potable spigots and irrigated areas will be clearly labeled with warning signs to prevent inadvertent consumption of non-potable water. The Applicant or its representatives will comply with Chapter 11-21, Title 11, HAR, titled "Cross Connection and Backflow Control."

Underground Injection Control

An Underground Injection Control permit will be applied for in compliance with Chapter 23, Title 11, HAR, before any injection well construction commences.

Wastewater

Thank you for confirming that the project is located in both the Non-Critical Wastewater Disposal Area (Non-CWDA) and Five (5) Acre Lot Exception Area.

The DEIS will contain information related to the proposed wastewater treatment plant, its impacts, and proposed mitigation measures.

The Applicant currently proposes to construct an onsite wastewater treatment plant, which will meet the requirements of Chapter 11-62, Title 11, HAR, titled "Wastewater Systems."

Information about the proposed wastewater treatment plant, its impacts, and proposed mitigation measures can be found in Sections 2.3 and 4.11 of the DEIS.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington/DW ʻĀina Leʻa Development

LINDA LINGLE
GOVERNOR

BRENNON T. MORIOKA
ACTING DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRIAN H. SEKIGUCHI

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

IN REPLY REFER TO:

STP 8.2728

December 28, 2007

Mr. John K. Baldwin
Managing Member
Bridge Aina Lea, LLC
2500 Kalakaua Avenue, #2404
Honolulu, Hawaii 96815

Dear Mr. Baldwin:

Subject: Bridge Aina Lea, LLC
Villages of Aina Lea
Environmental Impact Statement Preparation Notice (EISPN)
TMK: 6-8-001: 25, 36, 37, 38, 39, 40

Thank you for requesting our review of the subject project.

Our comments are as follows:

1. The Villages of Aina Lea project will impact Queen Kaahumanu Highway at the two proposed accesses.

2. We understand that, as the applicant, your firm is preparing a Traffic Impact Analysis Report (TIAR) covering the impacts from the project itself and the project's contribution to the cumulative impact on the affected roads and highways, and that the TIAR will be included in the forthcoming Draft EIS. We are particularly interested in the impacts and the recommended mitigation measures. The Draft EIS should discuss the inclusion of the Waikoloa Village Emergency Evacuation Access Road into one of the proposed access points for the Villages of Aina Lea to Queen Kaahumanu Highway, and the configuration and planning for the other proposed access, which will form a junction with the existing access for Mauna Lani Resort.

3. In the Draft EIS, the components, units, phasing and timetables of the project should be described in detail and the overall project should also be discussed relative to the past, current and future development projects and growth for the area.

4. We are an interested party and look forward to receiving at least four (4) copies of the Draft EIS.

We appreciate the opportunity to provide comments.

Very truly yours,

Francis Paul Keno

for BRENNON T. MORIOKA, PH.D., P.E.
Acting Director for Transportation

c: Christopher Yuen, Hawaii Planning Department
Constance Kiriu, Makani Resources

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Brennon T. Morioka, PH.D., P.E.
Director
State Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813-5097

Dear Mr. Morioka:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your letter dated December 28, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

The Draft EIS discusses the Project components, units, phasing and timetables in the project description found in Chapter 2. Past, current and future development projects are discussed in the *Traffic Impact Analysis Report* (TIAR), Appendix M, as well as in Chapter 4.6 of the Draft EIS. The TIAR addresses the cumulative impact on the affected roads and highways and proposed mitigation measures. The proposed project roadways include the Waikoloa Village Emergency Access Road, which will serve as one of the Project's access points at Queen Kaʻahumanu Highway. The alignment of this road and location of its intersection with Queen Kaʻahumanu Highway, however, have yet to be determined, as these are subject to further discussions with the County and Waikoloa Village representatives. The planned intersection improvements for the Emergency Access Road, as well as the planned configuration for the project southern access that will form a junction at the existing access for the Mauna Lani Resort, are also described in the TIAR and Chapter 4.6.

We acknowledge that the DOT is an interested party which will receive four copies of the Draft EIS.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ‘Āina Le‘a Development

LINDA LINGLE
GOVERNOR

ORLANDO "DAN" DAVIDSON
EXECUTIVE DIRECTOR

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

IN REPLY REFER TO:
07:PEO/151

December 31, 2007

Mr. John K. Baldwin, Managing Member
Bridge Aina Lea, LLC
2500 Kalakua Avenue, #2404
Honolulu, Hawaii 96815

Dear Mr. Baldwin:

Re: Environmental Impact Statement Preparation Notice (EISPN) for the Village of Aina Le'a, South Kohala District, TMK (3) 6-8-001:25, 36-40

We have reviewed the subject EISPN and note the following:

- The proposed Village of Aina Le'a will offer approximately 2,406 residential units in the Project District Urban area and maintain 863 residential-agricultural lots in the Agricultural District. It appears that the master plan includes the provision of 385 affordable housing units.

- The Applicant intends to comply with the County of Hawaii's housing policy in the provision of the affordable housing units.

Please provide more information on the affordable units, particularly in relationship to the Hawaii State Plan policy of increasing homeownership and rental opportunities and choices in terms of quality, location, cost densities, style and size of housing.

Thank you for the opportunity to comment.

Sincerely,

for Orlando "Dan" Davidson
Executive Director

c: Christopher Yuen, County of Hawaii Planning Department
✓Constance Kiriu, Makani Resources

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Karen Seddon
Executive Director
Hawaii Housing Finance and Development Corporation
Department of Business, Economic Development and Tourism
677 Queen Street, Suite 300
Honolulu, HI 96813

Dear Ms. Seddon:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

This is in response to a letter from the prior HFDC Director, Dan Davidson, dated December 31, 2007, regarding the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

The Applicant will provide a minimum of 385 affordable housing units onsite in compliance with a condition of the State Land Use Commission and with the County Housing Code. In addition, the Applicant is in discussions with a non-profit organization to provide work-force housing on-site. Information about the Project's onsite affordable housing units is found in Chapters 2.3 and 4.10.2 of the Draft EIS.

The discussion of affordable housing in relation to the Hawaii State Plan policy of increasing homeownership and rental opportunities is found in Chapter 6.2 of this Draft EIS.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ‘Āina Le‘a Development

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR

STRATEGIC INDUSTRIES DIVISION
235 South Beretania Street, Leiopapa A Kamehameha Bldg., 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-3807
Fax: (808) 586-2536
Web site: www.hawaii.gov/dbedt

December 18, 2007

Ms. Constance R. Kiriu
Makani Resources
195 Makani Circle
Hilo, Hawaii 96720

Dear Ms. Kiriu:

Re: Environmental Impact Statement Preparation Notice (EISPN
Village of Aina Le'a, Island of Hawaii South Kohala District
Tax Map Key: (3) 6-8-001:25, 36, 37, 38, 39, 40

Thank you for the opportunity to review the EISPN for the Village of Aina Le'a, Island of Hawaii, for infrastructure improvements, subdivision of property, five golf courses, golf academy, 40-unit lodge, up to 2,406 multi-family and single-family units, 863 rural-agricultural lots, commercial uses, related improvements/uses.

We would like to call your attention to: (l) State energy conservation goals; and, (2) energy and resource efficiency and renewable energy and resource development.

1. **State energy conservation goals.** Project buildings, activities, and site grounds should be designed and/or retrofit with energy saving considerations. The mandate for such consideration is found in Chapter 344, HRS ("State Environmental Policy") and Chapter 226 ("Hawaii State Planning Act"). In particular, we would like to call to your attention HRS 226 18(c) (4) which includes a State objective of promoting all cost-effective energy conservation through adoption of energy-efficient practices and technologies.

2. **Energy and resource efficiency and renewable energy and resource development.** We call your attention to the need for actions to enhance the sustainability of the development, including construction activity pollution prevention, green architecture, photovoltaic energy, solar water heating, and water conservation measures.

We, therefore, encourage the parties to this development to make a commitment to energy and resource efficiency and include requirements that take into consideration Leadership in Energy and Environmental Design (LEED) Neighborhood Development standards which integrate the principles of smart growth, urbanism, and green building.

Our website (http://www.hawaii.gov/dbedt/info/energy/efficiency/) provides detailed information on guidelines, directives and statutes, as well as studies and reports on aspects of energy efficiency. Please also do not hesitate to contact Carilyn Shon, Energy Efficiency Branch Manager, at telephone number 587-3810, for additional information on green buildings, energy efficiency, and renewable energy resources.

Sincerely,

Maurice H. Kaya
Chief Technology Officer

c: OEQC
Bridge Aina Lea, LLC
County of Hawaii Planning Department

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Maurice H. Kaya, Chief Technology Officer
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, Hawaii 96804

Dear Mr. Kaya:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your letter dated December 18, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

We acknowledge the mandate for considering energy efficiency in project design of buildings, activities and site grounds found in Chapter 344, Hawaiʻi Revised Statutes ("State Environmental Policy"), and Chapter 226, Hawaiʻi Revised Statutes ("Hawaiʻi State Planning Act"). Thank you for calling our attention to Section 226-18(c)(4), Hawaiʻi Revised Statutes, which includes a State objective of promoting cost-effective energy conservation through the adoption of energy-efficient practices and technologies. The discussion of the Hawaiʻi State Plan is provided in Chapter 6 of the Draft EIS.

We also recognize the need for actions to enhance the sustainability of the development by encouraging a commitment to energy and resource efficiency and including requirements that consider Leadership in Energy and Environmental Design (LEED) Neighborhood Development standards. Information on your website provides information on guidelines, directives and statutes on energy efficiency to assist us with this effort. The Applicant understands the value of sustainable development and will encourage the application of energy and resource efficient guidelines throughout the project.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ‘Āina Le‘a Development

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

January 11, 2008

Bridge Aina Lea, LLC
2500 Kalakaua Avenue #2404
Honolulu, Hawaii 96815

Attention: Mr. John Baldwin

Gentlemen:

Subject: Preparation Notice for an Environmental Impact Statement, Villages of Aina Le'a, South Kohana, Hawaii, Tax Map Key: (3) 6-8-1:25, 36, 37, 38, 39, 40

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Commission on Water Resource Management, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

for Morris M. Atta
Administrator

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 6, 2007

MEMORANDUM

From:

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
_x Engineering Division
_xDiv. of Forestry & Wildlife
__Div. of State Parks
_xCommission on Water Resource Management
__Office of Conservation & Coastal Lands
_x_ Land Division – Hawaii District

RECEIVED
07 DEC 7 A10:39
COMMISSION ON WATER RESOURCE MANAGEMENT

To:

FROM: for Morris M. Atta Charlene
SUBJECT: Preparation Notice for an Environmental Impact Statement, Villages of Aina Le'a
LOCATION: South Kohala, Hawaii, TMK: (3) 6-8-1:25, 36, 37, 38, 39, 40
APPLICANT: Makani Resources on behalf of Bridge Aina Lea, LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by January 3, 2008.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(x) Comments are attached.

Signed: _____
Date: 1/7/08

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON

MEREDITH J. CHING
JAMES A. FRAZIER
NEAL S. FUJIWARA
CHIYOME L. FUKINO, M.D.
DONNA FAY K. KIYOSAKI, P.E.
LAWRENCE H. MIIKE, M.D., J.D.

KEN C. KAWAHARA, P.E.
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

January 9, 2008

REF:

TO: Morris Atta, Acting Administrator
Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director
Commission on Water Resource Management

SUBJECT: Preparation Notice for EIS, Villages of Aina Le'a

FILE NO.:

RECEIVED
LAND DIVISION
2008 JAN -9 P 3:4
DEPT. OF LAND & NAT. RESOURCES
STATE OF HAWAII

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at *http://www.hawaii.gov/dlnr/cwrm*.

Our comments related to water resources are checked off below.

☐ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

☐ 3. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM: Additional information and forms are available at *www.hawaii.gov/dlnr/cwrm/forms.htm*.

☐ 4. The proposed water supply source for the project is located in a designated ground-water management area, and a Water Use Permit is required prior to use of ground water.

☒ 5. A Well Construction Permit(s) is (are) required before the commencement of any well construction work.

☒ 6. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

☐ 7. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.

☐ 8. Ground-water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

☐ 9. A Stream Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed and/or banks of a stream channel.

☐ 10. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or altered.

☐ 11. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.

☐ 12. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

☐ 13. We recommend that the report identify feasible alternative non-potable water resources, including reclaimed wastewater.

☐ OTHER:

If there are any questions, please contact Ryan Imata at 587-0255.

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 6, 2007

RECEIVED
LAND DIVISION
2007 DEC 14 P 4:01
DEPT OF LAND & NATURAL RESOURCES STATE OF HAWAII

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
_x Engineering Division
_xDiv. of Forestry & Wildlife
__Div. of State Parks
_xCommission on Water Resource Management
__Office of Conservation & Coastal Lands
_x_Land Division – Hawaii District

FROM: for Morris M. Atta Charlene
SUBJECT: Preparation Notice for an Environmental Impact Statement, Villages of Aina Lea
LOCATION: South Kohala, Hawaii, TMK: (3) 6-8-1:25, 36, 37, 38, 39, 40
APPLICANT: Makani Resources on behalf of Bridge Aina Lea, LLC

'07 DEC 13 AM 09:23 ENGINEERING

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by January 3, 2008.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(✓) Comments are attached.

Signed: Eric T. Hirano
Date: 12/14/07

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/MorrisAtta
REF: PrepNoticeEISVillagesAinaLea
Hawaii.365

COMMENTS

(X) **We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The National Flood Insurance Program does not have any regulations for developments within Zone X.**

( ) Please take note that based on the map that you provided the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumimoto at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.

( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.

( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.

( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

(X) **Additional Comments: Please correct information on page 21, first paragraph, of the document. Reference to Federal Emergency Management Agency's Flood Insurance Rate Map (FIRM), instead of U.S. Corps of Engineers FIRM.**

( ) Other: _____

Should you have any questions, please call Ms. Suzie Agraan of the Planning Branch at 587-0258.

Signed: _____
ERIC T. HIRANO, CHIEF ENGINEER

Date: 12/14/07

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Morris M. Atta, Administrator
Land Division
State Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Atta:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your letter dated January 11, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

Commission on Water Resource Management (CWRM). The Applicant is in agreement with the promotion of efficient use of Hawaiʻi's water resources through conservation measures and appropriate resource management. A detailed discussion of the project's impact on water resources and proposed mitigation measures is found in Chapter 3.5–Hydrology and Water Resources.

We acknowledge the permits required by CWRM which have been listed in Chapter 6.9 – Approvals and Permits.

Engineering Division. Thank you for confirming that the Project site is located in Flood Zone X. Also, all references to Flood Insurance Rate Maps have been corrected to show that they are the product of the Federal Emergency Management Agency.

Thank you for reviewing the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ‘Āina Le‘a Development

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAO'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

January 8, 2008

Ms. Constance Kiriu
Makani Resources
195 Makani Circle
Hilo, HI 96720

ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE
APPLICANT – BRIDGE AINALEA, LLC
PROJECT: VILLAGE OF AINALEA
TAX MAP KEY 6-8-001:025, 036, 037, 038, 039, AND 040

We have reviewed the subject Environmental Impact Statement Preparation Notice and have the following comments.

Please be informed that the applicant, Bridge Ainalea, LLC, has executed a Water Agreement with the Water Board outlining the necessary offsite water system improvements at the Ouli Well Field with connection to the Department's existing Lalamilo Water System to provide water for the proposed development.

Prior to granting water service for the development, all necessary water system improvements must be completed and dedicated to the Water Board.

Should there be any questions, please contact Mr. Finn McCall of our Water Resources and Planning Branch at 961-8070, extension 255.

Sincerely yours,

Kurt Ilnaka
for Milton D. Pavao, P.E.
Manager

FM:dfg

copy – Bridge Ainalea, LLC
Planning Department

... Water brings progress...

The Department of Water Supply is an Equal Opportunity provider and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410. Or call (202) 720-5964 (voice and TDD)

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Milton D. Pavao, P.E.
Manager
County Department of Water Supply
345 Kekūanao‘a Street, Suite 20
Hilo, HI 96720

Dear Mr. Pavao:

SUBJECT: EISPN for Villages of ‘Āina Le‘a, Waikoloa, South Kohala, Island of Hawai‘i

Thank you for your letter dated January 8, 2008, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ‘Āina Le‘a development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ‘Āina Le‘a Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

The Water Agreement executed between the Water Board and the former applicant, Bridge Aina Le‘a, is included as Appendix C of the Draft EIS.

The Applicant understands that all necessary water system improvements must be completed and dedicated to the Water Board before it is granted water service.

Thank you for reviewing the EISPN and for your comments. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ‘Āina Le‘a Development

Harry Kim
Mayor

Darryl J. Oliveira
Fire Chief

Glen P.I. Honda
Deputy Fire Chief

County of Hawai'i

HAWAI'I FIRE DEPARTMENT
25 Aupuni Street • Suite 103 • Hilo, Hawai'i 96720
(808) 981-8394 • Fax (808) 981-2037

December 12, 2007

Ms. Constance Kiriu
Makani Resources
195 Makani Circle
Hilo, Hawaii 96720

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT
PROJECT: VILLAGE OF AINA LEA
SOUTH KOHALA DISTRICT
TAX MAP KEY: (3) 6-8-001:25, 36, 37, 38, 39, 40

In regards to the above-mentioned environmental impact statement, we offer the following response:

Fire apparatus access roads shall be in accordance with UFC Section 10.207:

"**Fire Apparatus Access Roads**

"**Sec. 10.207.** (a) **General.** Fire apparatus access roads shall be provided and maintained in accordance with the provisions of this section.

"(b) **Where Required.** Fire apparatus access roads shall be required for every building hereafter constructed when any portion of an exterior wall of the first story is located more than 150 feet from fire department vehicle access as measured by an unobstructed route around the exterior of the building.

"**EXCEPTIONS:** 1. When buildings are completely protected with an approved automatic fire sprinkler system, the provisions of this section may be modified.

"2. When access roadways cannot be installed due to topography, waterways, nonnegotiable grades or other similar conditions, the chief may require additional fire protection as specified in Section 10.301 (b).

"3. When there are not more than two Group R, Division 3 or Group M Occupancies, the requirements of this section may be modified, provided, in the opinion of the chief, fire-fighting or rescue operations would not be impaired.

"More than one fire apparatus road may be required when it is determined by the chief that access by a single road may be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

"For high-piled combustible storage, see Section 81.109.

"(c) **Width.** The unobstructed width of a fire apparatus access road shall meet the requirements of the appropriate county jurisdiction.

"(d) **Vertical Clearance.** Fire apparatus access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches.

"**EXCEPTION:** Upon approval vertical clearance may be reduced, provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance.

"(e) **Permissible Modifications.** Vertical clearances or widths required by this section may be increased when, in the opinion of the chief, vertical clearances or widths are not adequate to provide fire apparatus access.

"(f) **Surface.** Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities." (20 tons)

"(g) **Turning Radius.** The turning radius of a fire apparatus access road shall be as approved by the chief." (45 feet)

"(h) **Turnarounds.** All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with approved provisions for the turning around of fire apparatus.

"(i) **Bridges.** When a bridge is required to be used as access under this section, it shall be constructed and maintained in accordance with the applicable sections of the Building Code and using designed live loading sufficient to carry the imposed loads of fire apparatus.

"(j) **Grade.** The gradient for a fire apparatus access road shall not exceed the maximum approved by the chief." (15%)

"(k) **Obstruction.** The required width of any fire apparatus access road shall not be obstructed in any manner, including parking of vehicles. Minimum required widths and clearances established under this section shall be maintained at all times.

"(l) **Signs.** When required by the fire chief, approved signs or other approved notices shall be provided and maintained for fire apparatus access roads to identify such roads and prohibit the obstruction thereof or both."

Water supply shall be in accordance with NFPA 1142.

Based on historical area data and evidence that illustrates the potential threat and impact by wildland fire, recommendations would be to include wildfire as a potential hazard and to consider establishing fuel management strategies or measures to minimize or reduce threat or impact. This may include green belts or "Firewise" flora, fire breaks, etc.

DARRYL OLIVEIRA
Fire Chief

DO:lpc

CC: County of Hawaii Planning Department, Christopher Yuen
Bridge Aina Lea, LLC, John Baldwin

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Darryl J. Oliveira, Fire Chief
Fire Department
25 Aupuni Street, Suite 103
Hilo, HI 96720

Dear Chief Oliveira:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your letter dated December 12, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

The Project will be developed in accordance with UFC Section 10.207 relating to Fire Apparatus Access Roads. The Project's water supply will comply with NFPA 1142.

The Draft EIS identifies wildland fires as a potential hazard in Chapter 3.4, and discusses the existing conditions, potential impacts and proposed mitigation measures.

Thank you for reviewing the EISPN. A copy or your letter and this response will be included in the EIS.

Sincerely,

James M. Leonard

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington/DW ʻĀina Leʻa Development

YAHOO! MAIL Classic

Print - Close Window

From: "Jennifer Grossart" <Jegrossart@hawaii.rr.com>

To: makaniresources@yahoo.com

Subject: aina lea proposal

Date: Wed, 19 Dec 2007 08:59:28 -1000

The Aina Lea proposal in South Kohala needs to go before the South Kohala Development Steering Commitee before any more time or money is wasting on it. Even before the huge increase of plans for this development (as announced) the CDP was not happy with the scope of this development. Now what is being planned is out of the question. Contact mail@townscapeinc.com. to find out what the community is willing to put up with in new development. They have been hired by the county to help plan the future of this area. Your plans don't fit. Jennifer Grossart, Waikoloa HI

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Jennifer Grossart
Jegrossart@hawaii.rr.com

Dear Ms. Grossart:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your email of December 19, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

You stated that the "Aina Lea proposal in South Kohala needs to go before the South Kohala Development Steering Committee before any time or money is wasted on it." You further recommend we contact mail@townscapeinc.com to "find out what the community is willing to put up with in new development."

The EISPN was transmitted to the South Kohala Development Steering Committee, which did not submit comments on the EISPN. Since the 2007 distribution of the EISPN, the South Kohala Community Development Plan (CDP) was officially adopted as Ordinance No. 08-159 effective December 1, 2008.

The community concerns as reflected in the goals and strategies of the South Kohala CDP were considered in the planning for the Village of ʻĀina Leʻa . The Draft EIS includes a discussion of the relationship and consistency of the proposed project with the South Kohala CDP in Section 6.6.

Regarding the scope of the development, the project received its land use approvals and permits in the latter part of the 1980s and early 1990s. The Applicant will be requesting a change of zoning from the existing Multiple-Family Residential, Village Commercial, Residential-Agricultural, and Agricultural zone districts to the Project District Zone.

Thank you for taking the time to respond to the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Bob Wessels and Steve Dunnington, DW ‘Āina Le‘a Development LLC

YAHOO! MAIL Classic

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Date: Fri, 7 Dec 2007 22:40:51 -1000 (HST)

Subject: Resort development -Waikoloa

From: "DIANE KANEALII" <kanealii@ilhawaii.net>

To: makaniresources@yahoo.com

Dear Constance Kiriu,
We are writing to comment on the propsed development of the Waikoloa by Bridge Aina Lea LLC. We are livelong residents of the Big Island and live in the Kawaihae area. Our concerns about the development are based on the long term effects of over development related to water, waste and infrastructure to support 4,132 residences in one area not to mention all the other growth that is planned for this area.
1. Water-Everyone keeps telling us there is plenty of water for the next 100 years. One hundred years is only about 1 and 1/4 generation, then what? Being an island, we can't simply divert water from some other place or haul it in. If our water meter is correct, we use about 20,000 gallons of water a month. There are 2 of us in the house, do about 2 loads of laundry per week and irrigate 12 coconut trees, a 10x10 garden and a small yard about 25 sq feet and a few more plants. We have drip irrigation for 15 minutes 2 times per day. How much water will over 4,000 residences use not to take in to consideration 5 golf courses, swimming pools and other resort type of activities. Are there plans for the developer to use reclaimed water?
2. Sewage Waste-Do the developers plans include a sewage processing plant and use the filtered water for irrigation? Is the developer going to drill another well or is the county going to put in a water line?
Who will pay for the cost to provide water to this development?
3. Infrastructure-Public facitilies in this area are very limited. Does the developer have plans to build schools, community centers, playgorunds, healthcare facilities,fire departments and roads that will be available for public use? The population growth, even if they are just visiting for short periods of time affect all of us who live here. They all utilize the beaches, parks, roads, postal services as well as emergency and medical facilities, which are in great demand and very limited here on the island.
4. Solid waste-How does the county plan to deal with the solid waste problem. We have limited access to dump sites and recycling programs. What are they going to do with all the trash? Is the developer required to contribute to a fund to assist the county to deal with these issues?

5. Compliance to county codes for affordable housing requirements-we feel
that if this project is approved by the county, they should be held to the
requirements of 820 affordable homes or the 20 % standard. Why would the
county even consider allowing for anything less? If the rules don't have
to be followed but negotiated between the county and developers than whay
even have rules and or standards to follow? Our elected officials are put
in office to protect our interests and act in the best interest of our
residents, not to line the pockets of the developers who are here today to
make their money, leave their mark on our land and move on to make more
money.
6. Roads-Getting in and out of Kailua Kona is already a problem. How will
the County deal with the traffic congestion and will the developer be
required to contribute the already planned by pass highway and or other
roads to prevent the traffic problems as seen on 'Oahu, Maui and Kauai.
Each automobile on the road also contributes to carbon monoxide
emmissions, how can we continuously ignore the problems of overdevelopment
by allowing these huge projects that have short term gains for our
residents?
We would like to see the county support self sufficiency and promotion of
our own products vs becoming more and more dependant upon tourism.
We uderstand that we can not stop growth and what is called progress, but
we should have a say on how we grow and hopefully our leaders have learned
from the mistakes that have occured on 'Oahu, where they have sewage
spills, horrible traffic problems, trash with no where to go that
continueously contaminate our waters, land, oceans and air. No one wants
to see that happen here and feel it can be prevented with proper planning
and limiting growth to preserve this land for the future generations. We
believe that all development must look at the impact it will have on our
resources and community and put back into the community more than it
takes.
Thank you for taking the time to read this letter and please take these
thoughts into consideration when reviewing the EIS.
Sincerely,
Roger and Diane Kanealii

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Roger and Diane Kanealii
kanealii@ilhawaii.net

Dear Roger and Diane Kanealii:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your email of December 7, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

Water. In terms of potential water use, at build-out the Village of ʻĀina Leʻa is projected to have an average daily use of approximately 1.32 million gallons a day (MGD) of potable water and approximately 0.527 MGD of non-potable water for irrigation of the roads, common areas and golf course. The irrigation requirements of the project will be met through the use of reclaimed water from the Project's and nearby wastewater treatment plants (WWTP) and from brackish wells developed on site. We should point out that the Village of ʻĀina Leʻa Project is confined to primarily the Urban portion of the property on approximately 1,128 acres and includes the development of only one golf course, not five golf courses which were part of an earlier proposal by the prior owner that involved a considerably larger property area. All the water related infrastructure (wells, tanks, transmission lines, etc.) for the Project is to be constructed by the developer. The potable water system will eventually be integrated as part of the Department of Water Supply's South Kohala System and a portion of the water developed will be used by the County to help meet the regional demands.

Wastewater. The developer will be constructing its own wastewater treatment plant and will be using the reclaimed water to supplement the irrigation water system.

Public Facilities. In reference to the need to address the project's impact on community facilities, especially in the context of the existing community needs, the Applicant has set aside 32 acres for a potential school site and an additional 16 acres for an active park and community center site. Additionally, the Applicant will contribute its "fair-share" amount for police and fire facilities, solid waste services, parks, and roads as required by zoning Ordinance No. 96-153 or future zoning approvals.

Solid Waste. The developer recognizes the additional demands of this project will have on the solid waste facilities of the area and has committed to encouraging waste recycling throughout the project through participation with County-initiated programs and ensuring there are adequate areas planned to accommodate community-wide recycling programs. As noted above, there will be a "fair-share" contribution requirement of the project to address the Project's impact to regional solid waste facilities. A discussion of the Project's impact to the County's solid waste facilities and proposed mitigation measures is found in Section 4.11.3 of the Draft EIS.

Affordable Housing. The developer will comply with the County's affordable housing requirements. A minimum of 20 percent of the units developed as part of the Project will meet the affordable housing guidelines. In fact, the initial development will include the construction of up to 400 affordable townhome units. Information about the Project's onsite affordable housing units is found in Section 2.3 of the DEIS.

Roadways and Traffic Circulation. In addressing road and traffic related improvement planned as part of the Project, a *Traffic Impact Analysis Report* (TIAR) was prepared as part of the Project EIS. The TIAR looked at the project's cumulative impact to area roadways in the context of the existing and projected development in the region and recommended potential mitigation measures to be implemented in order to address the Project's traffic-related impacts. All roadway improvements will be designed to meet the State Department of Transportation and County Department of Public Works requirements. A full discussion on the project's potential traffic related impacts and recommended mitigation is found in Section 4.6 of the DEIS. A copy of the full TIAR is included as Appendix M.

Thank you for taking the time to respond to the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Bob Wessels and Steve Dunnington, DW ʻĀina Leʻa Development

HutchinsonBlackandCook
Attorneys at Law

Baine P. Kerr
kerr@hbcboulder.com

December 15, 2009

VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Ms. Constance Kiriu
Makani Resources
195 Makani Circle
Hilo, HI 96720

Re: EIS for Village of Aina Lea

Dear Ms. Kiriu:

Confirming my recent e-mail, please include us on your notice and comment list and please send the draft EA/EIS as soon as available to 411 Spruce St., Boulder, CO 80302. If you need more information, please let me know.

Very truly yours,

Baine P. Kerr /tc/

Baine P. Kerr

BPK/tmc

cc: Cindy Carlisle

HBC
921 Walnut St., Suite 200, Boulder, CO 80302 | Tel (303) 442-6514 | Fax (303) 442-6593 | Toll Free (800) 303-6514
www.hbcboulder.com

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Baine P. Kerr
411 Spruce Street
Boulder, CO 80302

Dear Mr. Kerr:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your letter of December 15, 2009, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

This is to confirm that your name has been added to the notice and comment list for the Draft EIS for the Village of ʻĀina Leʻa. We look forward to any comments that you might have on the Draft EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ʻĀina Leʻa Development

YAHOO! MAIL Classic

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To: makaniresources@yahoo.com

From: "Catherine Rosasco Mitchell" <Info@FeldenkraisInterest.com>

Subject: Aina Lani subdivision

Date: Mon, 31 Dec 2007 14:47:55 -1000

Aloha Constance,

Seems we, the human race, continues to grow needing more and more land. Like technology it isn't going to go away... so let us look at QUALITY OF LIFE.
What would seem most profitable for all parties included... community, developers, affordable housing?
In ten years:
FUEL PRICES WILL RISE
MORE PEOPLE MEANS MORE POLLUTION WATER, LAND, AIR
MEDICAL CARE WILL RISE
RETIRED PEOPLE WILL RISE
DEFICIT WILL RISE OR NEED TO BE HANDLED

Costs need to stay at a minimum, for the environment as well as the people.
May we think SUSTAINABILITY...
if there must be golf courses can they be ORGANICALLY cared for?
Can energy come from wind or sun or other (see China's new sustainable metropolitan city).
if there is so many dwelling needed can they be built as community (with privacy) and save on land area.

Please consider what happen on the other islands... we come here to be rural. How can we grow and maintain that feeling?
One way is to THINK HAWAIIAN... with Hooponopono ways, with concepts that address 7 generations in the future, with respect to the Aina, the Kai, the Air.

Deep sigh.

With ALOHAAAAaaaaa

Catherine & The Team

Wellness Through Movement
for Children

FeldenkraisInterest.com
Info@FeldenkraisInterest.com
www.FeldenkraisInterest.com

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96721 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

May 6, 2010

Catherine Rosasco Mitchell
Info@feldenkraisInterest.com

Dear Ms. Mitchell:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

This responds to your email dated December 31, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

Your general comments reflect many of the same concerns expressed by others in the community. We note that a Socio-economic Impact Study was prepared by SMS Research, Inc. as part of the Project EIS. The SMS study addresses the potential social and economic impacts of the project and recommends measures to mitigate those impacts. As part of the SMS Study, several interviews were conducted with members of the community and community leaders to gain a full appreciation of the community concerns. You mention the need to plan with sustainability in mind, use of alternative energy sources, and planning communities to save on land. These are all items that are integral to the planning and design of the Village of ʻĀina Leʻa Project. The sustainable planning and building design guidelines for the project are described in Section 2.4.1 of the Draft EIS, and include the following:

- Conduct site planning to preserve existing resources and natural features
- Promote a "walkable community" through efficient land-use centered on a mixed-use Village Center.
- Promote the use of LEED principles in the planning, design, construction, and operation of Project buildings
- Provide bicycle and pedestrian paths along certain roads within the Project
- Employ natural cooling techniques in building design, orientation, and the use of landscaping

- Encourage the use of renewable energy devices such as solar water heaters and photovoltaics
- Incorporate water-efficient landscaping and landscape methods to minimize evaporation, reduce weed growth and retard erosion
- Irrigate roadside landscaping and the golf course with non-potable water or reclaimed water when feasible
- Use pervious paving instead of concrete or asphalt paving where permitted
- Use natural or grass swales to control water runoff

We thank you for reviewing the EISPN and for your comments. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Robert Wessels and Steve Dunnington, DW ʻĀina Leʻa Development

Michael Reimer, Ph.D.
75-6081 Ali'i Drive RR-103
Kailua-Kona, Hawaii 96740
GeoMike5@att.net
December 19, 2007

Constance R. Kiriu
Makani Resources
195 Makani Circle
Hilo, Hawaii 96720
makaniresources@yahoo.com
808-959-1803

Dear Mrs. Kiriu,

I am pleased to have this opportunity to comment on the EIS Preparation Notice for the Bridge ´Āina Le´a Project. My comments are strictly to help improve the preparation of the draft EIS. Where I did provide an example, it was carefully screened to not have any detrimental impact on the provision of affordable housing.

I believe you have compiled a document that can fairly be said is a good initial beginning toward an EIS. I recognize the difficulty as I am sure you do, that you have had to address issues and studies related to this project that were performed or prepared more than a decade ago. There have been many legislation changes in the intervening years that may make many of the assumptions and presumptions moot. Certainly, there is a Community Development Plan in preparation and it would be proper for the EIS to address issues as they are being prepared for inclusion in that document. A conservative approach would be to recognize and address the sense of the residents and administration for developments of this magnitude.

The Villages of ´Āina Le´a is a massive project. When completed, it will rival or may even exceed in size Waikoloa Village. It is therefore not so much a vacation resort as it is a village. It is important, therefore that this simple realization be addressed in the draft EIS.

There are five issues I included in the discussion that do not readily have a topical area in the EISPN. Those issues are: Waikoloa Emergency Access Road; the proximity of the Villages of ´Āina Le´a to Waikoloa Village; unexploded ordinance; hurricanes; and; parking. I placed these discussions in sections 2.02, 2.03, 2.03, 3.05, and 3.14, respectively.

I hope my comments are useful to you as you prepare the draft EIS.

Sincerely yours,
Michael Reimer
Michael Reimer, Ph.D.
Kailua-Kona
GeoMike5@att.net

COMMENTS ON THE VILLAGES ´ĀINA LE'A – Environmental Impact Statement Preparation Notice (EISPN)

Prepared by Michael Reimer
December 19, 2007
Kailua Kona, Hawaii
GeoMike5@att.net

The concept of the Villages of ´Aina Le´a (hereafter, the Project) properly requires an Environmental Impact Statement (EIS) as it is a large project that will involve substantial impact to the County of Hawaii, including alterations to state and county lands.

The Project usage is currently addressed as a resort but its sheer magnitude, over 3,200 residences and lots, makes it rival some of the largest communities on the west side of the Big Island. Because of this, the EIS must address the impact of such a community on the land that it occupies and the surrounding environs.

The purpose of my remarks is to provide commentary and suggestions on some issues in the EISPN. I hope they will be useful in the preparation of the draft EIS.

General Description of Project (2.):

Overall Master Plan and Project Description (2.02)
Waikoloa Village Emergency access road:

When this road was constructed, it was noted that it was for the singular purpose of allowing Waikoloa Village residents to use it makai for emergency evacuation. For example, it was cited that this road would not be used by contractors as Waikoloa Village expanded. This EISPN suggests (2.02, ¶7) that it will be used for access to the Project, a contrasting usage to the original intent and the access road could be clogged with usage by Project residents! The stated restricted usage of the emergency access road would at this time seem to preclude that site being used for access to the Project and must be addressed in the draft EIS. Any agreement to the contrary should be presented.

While this seems to be an incompatible use at this time, a resolution is easily achievable and will be also addressed in later issues in this discussion. As the Project property is within about 600 meters of Waikoloa Village, a connector road could be built just south of the access road, eventually intersecting with the future north-south road (Figure 5). This concept is further discussed in 2.03 and should be included in the draft EIS.

Adjacent Uses: (2.03)

I believe the discussion here gives a misleading impression on proximity. It states that Mauna Lani is one mile (1.6 kilometers) from the highway but fails to note that Waikoloa Village is only approximately 600 meters away. I believe an existing major development within that distance must be considered adjacent.

This proximity to Waikoloa Village is significant in that many resources can be shared. This is mentioned in the case of schools but must be expanded considerably in the draft EIS. County services can be shared such as police, fire, health, transportation links, libraries, recreational facilities, and so forth. Such cooperation can prevent the duplication of effort and services and have a great minimizing effect on the negative environmental impacts introduced by development. In addition, sharing of common services has the potential of saving much investment capital for the Developer and perhaps the savings can be applied to the affordable housing section. This proximity to Waikoloa and efforts to share facilities must be amplified in the draft EIS.

Unexploded Ordinance (2.03):

This area if not used directly was proximal to a firing range used by the U.S. Military during World War II. Acknowledgment of the military presence is noted several times in the EISPN in Section 3, particularly in 3.09. Developments in the area, including those at Waikoloa approximately 600 meters mauka have periodically uncovered unexploded ordinance. This was an issue for the placement of the Emergency access road recently completed and was addressed it the EIS for that emergency access road.

Therefore, the issue of unexploded ordinance must be addressed in the draft EIS.

Summary Description of affected environment, potential impacts and mitigation (3.):

Climate (3.01):

Mention of the general wind speed and direction would be important as it will relate to the issue of dust. A source of this information could be the nearby commercial helicopter business or perhaps even at one of the commercial establishments of the Kawaihae Harbor. It is possible that either may have a recording station and perhaps retain records.

Topography, Potential Impacts and Mitigation (3.02):

The topography has been described as gently to moderate sloping. It is stated that the golf courses will use the existing gentle slopes. Does that mean that only the moderate sloping areas will be modified? This is important as it will relate to flood control particularly around the mapped flood zones or channels. This should be addressed in the draft EIS.

Soils and Agriculture Potential (3.03):

The general soil depth should be presented. Some estimate of the amount of fill to be brought in and its source should be given for the entire project.

If this project is going to be developed over 10 years, the characterization of construction activities as being short-term is misleading. As this relates to dust control, more than offshore

water quality will be impacted. If the wind direction is dominantly on-shore, Waikoloa Village will be impacted. Common procedures for dust control should be contemplated and discussed.

Natural Hazards (3.05):

In an interesting twist to tsunami hazards, although there is a low probability of direct tsunami impact, there is a rather large indirect impact. That will be the project village could find itself a source of short-term and perhaps long-term relief for individuals fleeing the shore line resorts and dwellings. This possibility should be addressed. It may well be that one or more of the golf courses could become a temporary "tent city" for refugee relief. This is where the emergency access road(s) should be marked and be made available. In other words, this should not be a locked gate community! See comments on 2.02 above.

Further, the issue of response and mitigation to a hurricane event should be addressed.

Botanical Resources (3.06):

It may be prudent to add the U.S. Geological Survey to the list of agencies to be contacted regarding the preservation of the red 'ilima. That agency has a biological section that deals with a variety of issues from endangered or rare species to flu epidemics.

Archaeological and Historical Resources (3.08):

The June 1987 survey by the Archaeological Consultants of Hawaii, Inc. should be included in the appendix of the Draft EIS. Were any additional sites found and identified in the 3 surveys conducted after the 1992 survey performed by Ogden Environmental and Energy Services Company and the US Army Corps of Engineers report of January 2002?

Noise (3.10):

Noise is of course a distance related perception. A reference to the estimation of the noise increase of 1 dBA, as well as the 65 Ldn FHA/HUD noise standard should be noted in the Draft EIS. It should be noted that 24 CFR Part 51 Subpart B, Noise abatement and control sets 55 Ldn as a goal for exterior noise and 45 Ldn as a goal for the interior (see 24 CFR 51.101(a)(8 and 9)). Of course a study can be performed and the results included in the draft EIS.

Air Quality (3.11):

The draft EIS should mention air quality related to the potential WWTP on the SW property.

Socio-Economic Environment (3.12):

The draft EIS should discuss the reasons, disadvantages, or advantages for placing the affordable housing in a single area rather than integrating it throughout the complex.

Transportation and Traffic (3.14):

Traffic loads have greatly increased since 1999. Reliance on a 1999 report would therefore be inadequate.

Any agreements between the developer and the State or County for use of the emergency access road should be revealed and identified in the draft EIS.

Although likely contained in the 2007 TIAR prepared by SSFM International Inc., a discussion of public transportation should be included in the draft EIS.

The impact of commercial establishments on traffic should be addressed, especially if the developer seeks to establish a large complex perhaps with superstore anchors.

I include here the issue of parking that is absent in the EISPN. Adequate parking must be addressed in the draft EIS. Recent testimony before the County Council on a bill to increase parking designations, by a representative of a professional group dealing with development design, suggested that parking lots contribute to global warming and water runoff and thus should be limited. Although a highly arguable issue, the draft EIS should include a discussion of how a parking area contributes more to global warming than a dark lava field that it replaces. Similarly, there are options of permeable paving material for parking lots that are now available and that should be discussed. As mentioned in the comment on section 3.15.03, unless there are enforceable restrictions on occupancy of high density housing, the parking demand could easily exceed two cars per unit. At a minimum, the draft EIS should discuss how the spill-over parking will be addressed.

The responsibility for the maintenance of the roads in the complex should be addressed in the draft EIS.

Water System (3.15.01):

The draft EIS runs a risk here of relying on reports that were prepared 15 years ago. Many things have changed including water conservation measures, particularly for golf courses.

The use of non-potable water for irrigation is mentioned as being a combination of WWTP and brackish water. The source of the brackish water should be mentioned as well as the source of waste water if the Mauna Lani WWTP is used.

A groundwater basin for this area is mentioned covering a large area from Kawaihae to 'Anaeho'omalu Bay. What is the fraction of the 3,000 acre development to the entire basin area and how does this relate to the development's percentage of sustainable use yield? These issues should be addressed in the draft EIS.

Utilities 3.15.02:

The draft EIS should include specific details on how the project development will actively address residential needs. For example, there is a County energy plan being developed and it will clearly include suggestion to save power on hot water heating. The draft EIS should include measures that the developer will undertake when building residences to address energy conservation needs. For example, hot water heat has been identified in the Kohala Center-Yale University cooperative study as consuming 40 percent of residential energy.

Recreation 3.15.03:

This topic brings forth one area that I take exception to the project description in the EISPN. It is the statement concerning the resident profile. Its claims appear to be based on the statement that the development will attract second home buyers, retirees and professionals. While this may be true, I believe there is a difference in an owner profile and a resident profile. Unless the declaration and covenants of this development specifically indicate with enforceable provisions that the units are available only to Island residents and not investors, then my division of owner and resident is germane and applies to schools, road and traffic, and public services and so forth. Even if rental of the units is allowed, then the declaration and covenants must severely limit with enforceable provisions the number of occupants per unit. This is important to the issue of providing adequate parking for the development, both for residential and commercial areas.

Investors are looking for renters. Frankly, a study should be done to help quantify the numbers likely to be projected and then reported in the draft EIS. It is known from empirical evidence that developments in and near the Kailua Village have a high investor percentage with as many as 50 percent of the units being rentals.

If the reference to harbor facilities here is Kawaihae Harbor, there are currently major issues with any expanded use of that facility including private recreational boating activities.

It is noted in the EISPN that parks and trails are expected to be turned over to the County for maintenance. If this is a covenant community with association dues or fees, why would the parks not be maintained by the association? If a County facility, it must be open to all County residents and visitors, as well. If the County refuses to accept this responsibility, is there any impact on the General Plan to not provide these recreational facilities? This should be addressed in the draft EIS.

Wastewater (3.15.04):

The statement regarding impact being nonexistent on public sewerage systems because there are no facilities is somewhat flippant. Waste water treatment must be addressed in any event and it appears that the draft EIS will do so.

Fire and Police Services (3.15.06):

Any existing nearby fire and police services will be inadequate when the community of over 3,000 residences is built. As the development is of major size, the concept as mentioned to provide and even construct structures for additional fire and police protection is critical and necessary. Additional special needs, if required, should be addressed. For example, if the developer plans a multi-story structure, a large enclosed mall, or even a superstore , it may be prudent for developer to provide through donation a special snorkel-ladder unit to assist adequate fire protection.

The response time of 30 minutes for a back up fire protection is inadequate. Technically, it may be possible for the fire unit across from the development to expand to two stations as it will be required to provide current protection as well as protection for this large Project. Establishing a volunteer fire department could be considered. These issues should be discussed in the draft EIS.

Health Care (3.15.07):

Similar to police and fire protection, reliance on existing area health care facilities is inadequate. They will have to expand to address the increased impact of the large development. Hospitals in the area are mentioned but it must be recognized that there is a great difference in what treatment can be expected from those facilities. For example, the North Kohala Hospital cannot provide the same level of emergency room service that the Kona Community Hospital can but access to the latter, if by highway, could be over 1-hour away.

The EISPN says it "...will present mitigation measures, if any." This is seemingly a statement of frustration. It will be interesting to see how the draft EIS addresses the health care issue. A community of mostly retirees will require specialized health care. Yet the presence of the anticipated younger population within the affordable housing establishes a health care mix requirement. There are many things a developer can do to provide increased health care services even within the current "crisis" situation of the County, to prevent an additional overload that a development of this size will create.

A recent conference convened by the Mayor presented many issues of the current status of health care on the Big Island. The draft EIS should thoroughly and in expanded detail discuss the impact and mitigation of this issue in view of the impact from the Project.

Schools (3.15.08):

Similar to my concern expressed in 3.15.03, I disagree with the statement that the impact on schools because of the anticipated demographics of the project will be small. Even if I could support the EISPN suggestion however, I would argue that just one additional classroom of students would have a major impact on the existing school system. Also, busing children to Kealakehe High School will have a major impact on traffic.

Of course, the declaration and covenants could declare this an adult community. However, even if the affordable housing section was exempted from the exclusion of children, it is possible that there could be an additional 500 or more students seeking a school system.

I am pleased that the EISPN recognizes this potential impact, mentions possible cooperation with Waikoloa, and suggests setting land aside for educational purposes. It also states the draft EIS will contain results of studies from discussions with DOE.

Anticipated Approval and Permits Needed (4.):

Community Development Plans (4.06):

I am pleased that the draft EIS will identify plans either completed or in progress. I would hope that the draft EIS will take into consideration the directions such plans are suggesting, even though they may not be completed before the draft EIS.

Significance Criteria and Findings (6.):

In view of the foregoing comments, I believe some of the 13 findings must be modified.

-END-

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May 6, 2010

Michael Reimer, Ph.D.
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GeoMike5@att.net

Dear Dr. Reimer:

SUBJECT: Comment to the EISPN, Villages of ‘Āina Le‘a, Waikoloa, South Kohala, Island of Hawai‘i, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your email of December 19, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ‘Āina Le‘a development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ‘Āina Le‘a Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

Waikoloa Emergency Access Road. A northern access road, generally in the location of the current Waikoloa Emergency Access Road alignment, is planned as part of the project. The location of its intersection with Queen Ka‘ahumanu Highway and the alignment for this mauka-makai road has yet to be determined and is subject to further discussions with the County and representatives of Waikoloa Village. There are no plans to use the existing unimproved Emergency Access Road alignment to provide construction access to the Project. Currently all construction-related access is through the southern access road that intersects with Queen Ka‘ahumanu Highway accross from the Mauna Lani Resort access. The projected traffic movements for this road, at build-out, and recommended intersection improvements, are contained in an updated (September 2009) Traffic Impact Assessment Report prepared for the Project EIS by SSFM International. A copy of the TIAR is found in Appendix M and a complete discussion of the Project’s traffic-related impacts and recommended mitigation measures are found in Section 4.6 of the Draft EIS.

Adjacent Uses. The location of the project and its relationship to Waikoloa Village and other adjacent uses are discussed in Section 4.2 of the DEIS. We should point out that the Applicant's property and proposed development area is more than a mile from Waikoloa Village at its closest point. Your point, however, is well taken and there are opportunities for shared uses of facilities. As an example, a water utility connection with Waikoloa Village is planned to serve the initial phase of affordable town-home units. The Applicant also plans to upgrade the existing ʻAuwaiakeakua WWTP serving Waikoloa Village in order to use the treated effluent as a source of brackish water for irrigation within the Project. It is also anticipated that both the commercial and public facilities that will be developed as part of and in conjunction with the Village of ʻĀina Leʻa will be of benefit to all residents of the area.

Unexploded Ordnance. The use of the area by the U.S. military during World War II and the potential presence of Unexploded Ordinance (UXO) in the area are discussed in Section 4.5 of the DEIS. Survey of the area by the U.S. Army Corps of Engineers is currently underway and will cover the full development area ahead of development.

Climate. You mention that the general speed and direction of wind in the area is important as it relates to the issue of dust. Climatic data, including wind conditions, are addressed in Section 3.1 of the DEIS. Several measures are planned to address the potential for dust generation during construction, a detailed discussion of which is found in Section 4.8 of the Draft EIS.

Topography, Potential Impacts and Mitigation. The statement within the EISPN that the golf course will use the existing gentle slope was intended to indicate that the golf course will be designed in relation to the existing topography so as to impart a natural feel to the golf experience and minimize the amount of grading required. No development within the existing floodways is planned, other than the potential infrastructure and project roadway crossings, where needed, that would be implemented in accordance with all State and Federal permitting requirements. The requirements for floodway mapping and proposed drainage related improvements for the Project are contained in a *Conceptual Master Plan Drainage Report* that was prepared for the Project, a copy of which is found in Appendix E of the DEIS. A full discussion of the potential impacts regional drainage conditions and proposed mitigation measures is found in Section 4.11.4.

Soils and Agriculture Potential. A complete description of the soil characteristics is found in Section 3.3 of the DEIS. The amount of fill material to be brought to the project is not known at this time but it is anticipated to be minimal as most fill material is expected to be generated onsite through the development of a comprehensive grading plan. In your comments you state that the characterization of construction activities being short-term may be misleading, in that the project will be developed over a ten-year period. Your point is well taken, however, the term "short-term" is used here relative to the full life of the community and is intended only to make a distinction between those impacts that occur during the construction period and those that occur following development. The measures for dust control are addressed and are discussed in Section 4.8 of the Draft EIS.

Natural Hazards. With regards to the potential for the property to be used as an evacuation site in the event of a tsunami, we note that, as part of this development, the Applicant has set aside 32 acres for use as a potential school site. DOE-developed school facilities could be designed to also serve as an emergency evacuation center. The development of the project-related roads, including the Waikoloa Emergency Access Road, will enhance the emergency evacuation capability of the area. It is expected that these roads will all be well marked and accessible. The Village of ʻĀina Leʻa community will be accessible and is not planned to be a gated community.

Botanical Resources. We appreciate your suggestion to use the U.S. Geological Survey as a potential resource agency regarding the red ʻilima. We note that the Botanical Survey and Botanical Preservation Plan were reviewed and commented on by the U.S. Department of Interior, Fish and Wildlife Service (FWS) and the State Department of Land and Natural Resources, Division of Forestry and Wildlife (DLNR-DFW). We will include the U.S. Geological Survey, along with the U.S. Department of Interior, FWS, and the State DLNR-DFW in our distribution list for the notice of availability of the EIS.

Archaeological and Historical Resources. As pointed out in the EISPN, there have been several archaeological surveys and reports prepared regarding the subject property. While it would not be practical to include all of these with the EIS, each subsequent archaeological survey report includes review and summary of all previous work on the affected property. The most recent Archaeological Inventory Report includes a summary of the findings of the prior archaeological work, including the 1987 Archaeological Consultants of Hawaii (ACH) Report. We also note that the 1987 ACH was an Archaeological Assessment to determine if sites of potential historical significance were present. Because the 1987 Assessment Survey identified one site of potential historical significance, a complete Archaeological Inventory Survey of the Project area was conducted, which was the subject of the 2002 Archaeological Consultants of the Pacific (ACP) Archaeological Inventory Survey Report. A copy of the 2002 ACP Report is found in Appendix I and a full discussion of the archaeological resources found on site and recommended protection/mitigation measures is found in Section 4.1 of the Draft EIS.

Noise. An estimation of increase in noise levels and reference to the FHA/HUD noise standard, as you suggested in your comments, are included in the Draft EIS. A Noise Quality Impact Study was conducted for the project. A copy of the Study is included as Appendix N and a complete discussion on the potential noise related impacts is found in Section 4.7 of the Draft EIS.

Air Quality. An Air Quality Impact Study was conducted for the Project. A copy of the Study is found in Appendix O and a discussion on the potential impacts to the ambient air quality from the Project development, including the WWTP, is found in Section 4.8 of the Draft EIS.

Socio-Economic Environment. The issue of potentially concentrating the affordable housing in one location rather than being spread throughout the development is discussed in the EIS. While a minimum of 20 percent of the units will be provided meeting the County Affordable Housing Guidelines, the majority will be built as part of the first increment of development, as required by the conditions of the State Land Use Commission, with specific timetable for

development, thereby limiting the Applicant's ability to construct the housing proportionally in conjunction with the phases of development.

Transportation and Traffic. The Traffic Impact Assessment Report,(TIAR), that is included with the Draft EIS, was updated by SSFM in September 2009. An agreement with the County for the development and use of the Waikoloa Emergency Access Road is identified in the Draft EIS as is a discussion on the availability of public transportation in the area. A copy of the TIAR Report and a full discussion of the Project's traffic related impacts and proposed mitigation measures are found in Appendix M and Section 4.6 of the Draft EIS, respectively. In your comments you point to the potential for parking areas to contribute to global warming. In this aspect the option of using porous paving materials and landscaping in parking areas, where practicable, will be encouraged throughout the project. The type and design of the commercial facilities that would be part of the commercial center are not known at this time so we are unable to comment on the parking requirements for these uses.

Water System. *The Water Resources Assessment (Assessment)* that was prepared as part of this EIS was updated by Tom Nance Water Resource Engineering in July 2009 and therefore does include current information. The *Assessment* examines the impact of the project on both the potable and non-potable (brackish) water resources in the affected areas. Nance's *Assessment* estimates that the projected use of brackish water from the development of on-site wells would potentially reach 0.53 MGD, which is equivalent to about 3.5 percent of the projected sustainable yield of the ground water resources in the area. A full discussion of the Project's potential impacts on the ground water resources is found in Section 3.5 of the Draft EIS. As noted above, the other source of brackish water for the Project irrigation system will be from reclaimed (R-1 quality) water from both on-site and Waikoloa Village wastewater treatment plants.

Utilities. In answer to your question, the Draft EIS addresses the energy needs of the project both related to the method by which electrical power will be delivered to the project and also the means by which a reduction of energy use can be achieved through the adoption of sustainability practices in the planning and design of community infrastructure and buildings. The sustainable planning and building design guidelines for the project are described in Section 2.4.1 of the Draft EIS, and include the following:

- Conduct site planning to preserve existing resources and natural features
- Promote a "walkable community" through efficient land-use centered on a mixed-use Village Center.
- Promote the use of LEED principles in the planning, design, construction, and operation of Project buildings
- Provide bicycle and pedestrian paths along certain roads within the Project
- Employ natural cooling techniques in building design, orientation, and the use of landscaping
- Encourage the use of renewable energy devices such as solar water heaters and photovoltaics
- Incorporate water-efficient landscaping and landscape methods to minimize evaporation, reduce weed growth and retard erosion

- Irrigate roadside landscaping and the golf course with non-potable water or reclaimed water when feasible
- Use pervious paving instead of concrete or asphalt paving where permitted
- Use natural or grass swales to control water runoff

Recreation. You make a valid point regarding the difference between the owner and resident profile as some units that are owned by second-home buyers, retirees, and professionals could be rented for periods of time. In fact, it is expected that a good portion of the Project residents will work in the area. As you point out in your letter, developers of both the residential and commercial areas will need to take this particular demographics of the project residents into consideration when planning the parking for these areas. Regarding your comment on the dedication of the parks and trails to the County, we should clarify that the Park areas planned as part of the Project will be maintained by the developer or its successor homeowner association, unless or until the County exercises its option of ownership. A discussion on the Project's impact on recreational facilities in the area and proposed mitigation measures is found in Section 4.12.1 of the DEIS.

Wastewater. The issue of wastewater treatment is addressed in Sections 2.3.9.3 and 4.11.2 of the DEIS. As noted previously, the development will be constructing its own wastewater treatment plant and will be upgrading one of the existing wastewater treatment plants serving Waikoloa Village so that the effluent from both plants can then be used to supplement the irrigation needs of the project.

Fire and Police Services. While the existing fire and police services serving the area may be sufficient to meet the current requirements, it is recognized that these services and facilities may need to be expanded to meet the needs of the Project. While the developer will be required to contribute to the provision of fire and police services though "fair-share" contributions that are imposed as conditions of zoning approval, the developer will need to work with the Police and Fire Departments on an on-going basis to insure that the growing needs in the area for emergency services and protective care are met. A discussion of the Project's impact on the area's fire and police services and proposed mitigation measures is found in Sections 4.12.2 and 4.12.3 of the DEIS.

Health Care. As part of the SMS Socio-Economic Impact Study, several interviews were conducted with area residents, community leaders and representatives and the issue of access to urgent and emergency care facilities in the area was often mentioned as an area of concern. You will note that one of the elements proposed for development in the initial phase of development is a commercial center. The Applicant is looking for a privately operated urgent-care medical service facility which could be located in the Project's Commercial Center, and has had discussions with providers of these services who have expressed an interest in locating to the area. Based on these early discussions, it is felt that these facilities can be tailored to meet the particular needs of the surrounding area. A discussion on the Project's potential impact on area health-care facilities and proposed mitigation measures is found in Section 4.12.4 and a copy of the SMS Study is found in Appendix P of the DEIS.

Schools. The Project's impact on the area schools was also evaluated as part of a SMS Study. The SMS Study estimates that at build-out, the resident population of the Village of ʻĀina Leʻa could potentially generate an additional 1,000 students to the educational system. The Project's potential impact on the regional schools and proposed mitigation measures are discussed in Section 4.12.5 of the Draft EIS.

Community Development Plans. The proposed development and its relationship to the policies and directions expressed in the South Kohala Community Development Plan is discussed in Section 6.6 of the DEIS.

Significance Criteria and Findings. It is not clear from your comment which of the findings you find disagreement with. These same aspects of the Project are also evaluated in the context of the DEIS with the benefit of the full range of professional studies that form a basis for analyzing the Project's potential environmental impacts and recommended mitigation measures.

Thank you for taking the time to respond to the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Bob Wessels and Steve Dunnington, DW ʻĀina Leʻa Development

YAHOO! MAIL Classic

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From: "Betty Murray Springer" <irishmomtx@att.net>

To: makaniresources@yahoo.com

CC: phoffmann@co.hawaii.hi.us, kapilago@co.hawaii.hi.us, fholschuh@co.hawaii.hi.us

Subject: Ref: Villages of Aina Lea project

Date: Fri, 21 Dec 2007 13:11:32 -0600

In reference to Villages of 'Aina Lea per news article:
http://www.westhawaiitoday.com/articles/2007/12/07/local/local02.txt

I am not against development, but I am against poorly thought out development that will negatively affect this island.

Until there is a viable plan in place in conjunction with the Villages of 'Aina Lea project to provide adequate roadways (including traffic on the Queen Ka'ahumanu highway), this project should not be approved. This means not just a plan on paper to be eventually ignored, but a plan with actual start & completion dates for improvements. And the plan needs to be funded and the dates need to be met.

Before this project should be considered for approval, there needs to be an acceptable plan agreed to by the developer that will address the increased affect on the public schools; the hospitals & health care services; libraries; parks; recreational facilities; police & fire services; water & electricity service; and on & on. We can NOT continue to put these increased demands on all these services like there is some never ending supply.

I think it should be a priority of the County Council every time a project comes before them that all the department heads for fire, police, water, public works, etc. should have to review the project's plans and submit an analysis (to the public) as to how that project will affect those services. We need to know how many additional fire/police personnel will be needed to service the increased demand. We need to know how much more water & electricity demand will result from the project. And we need to know the costs to meet those demands & how the developer is going to participate to offset those requirements. You simply cannot put 4,000+ houses down without expecting it to adversely affect all those services (along with schools, medical, etc). You cannot put 5 golf courses down without having a horrendous affect on the water supply on this island. You cannot clear this amount of land without expecting significant drainage problems. You cannot put this many new residents in an area without it affecting the needs of the schools, police, fire, EMS, etc.

We need to WAKE UP and realize we are killing our island by over development without adequate planning. And a plan "on paper" doesn't solve the problem... it needs to be put into ACTION. We need our County government to be accountable and, most importantly, we need the developers to be accountable.

This project just has so many negative connotations to it for this area at this time, I really hope the Council will take a LONG hard thought provoking look at this. In addition to all the obvious impacts stated above, I am very concerned about the significant decrease in the number of affordable housing units now proposed for this project.

Aside from EIS consideration, maybe what our County government should be looking at is tax breaks & other incentives designed to draw BUSINESSES to this island that will employee people at decent wages (not minimum housekeeping & service industry wages). We need major businesses that will employee our people with college degrees so that they don't have to leave the islands & go to the mainland in order to find a job utilizing their skills. Until we draw businesses that can provide higher level jobs, we are only fooling ourselves into thinking "everything is fine". We need to get serious about encouraging higher level education for our young people, and there needs to be jobs out there for them to work toward & look forward to.

Thanks for your time and consideration.

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May 6, 2010

Betty Nanimaeʻole Murray Springer
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Dear Ms. Springer:

SUBJECT: Comment to the EISPN, Villages of ʻĀina Leʻa, Waikoloa, South Kohala, Island of Hawaiʻi, TMK (3rd) 6-8-001: 25, 36, 37, 38, 39 and 40

Thank you for your email of December 21, 2007, in response to the Environmental Impact Statement Preparation Notice for this project.

Please note that the applicant for the ʻĀina Leʻa development has changed following the purchase of 1,092 acres of the original 3,000 acres by the new applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp.

As the preparer of the EIS for the new applicant, we are responding to your comments.

We acknowledge your concern that a viable plan should be in place in conjunction with the Villages of ʻĀina Leʻa to provide adequate roadways (including traffic on Queen Kaʻahumanu Highway) and to address the increased impact on public schools, hospitals and health care services, libraries, parks and recreational facilities, police and fire services, water and electricity services and other services.

While the focus of your letter is directed to government policy makers, we will answer those issues in which we have been involved.

As a matter of background, the project received its land use approvals and permits in the latter part of the 1980s and the early 1990s. The Applicant, through its consultants, has been working with State and County government agencies and the Waikoloa community to modify the original plans to address some of the community concerns. These include the elimination of the second golf course in the State Land Use Urban area, the inclusion of more north/south and mauka/makai roads to facilitate regional traffic circulation, and the identification of a school and community center site on the property. These modifications warrant a change of the existing zoning to a Project District Zoning, which would provide greater flexibility in addressing a range of site planning, marketing, and regional infrastructure considerations.

Roads and Traffic. DW ʻĀina Leʻa has been working with the State Department of Transportation-Highways Division to coordinate its intersection improvements, which include a fully channelized intersection and street lights, with the State's regional planning efforts. In addition, the Project's major internal roadways are planned to improve regional traffic circulation. The Applicant also assigned an easement to the County of Hawaiʻi to allow the construction of a portion of the Waikoloa Emergency Access Road corridor over its property.

Schools and Libraries. The Applicant is working with the State Department of Education and community representatives to identify a school site on the property. While the State Land Use Commission has required that 16 acres be set aside for a public school site, the Applicant has set aside 32 acres for a potential school site. It has not been determined whether a public library would be located within this school site.

Parks and Recreational Facilities. The Applicant is working with the County Department of Parks and Recreation and community representatives to identify a site within the Project for a community center for recreational activities. In addition, although a condition of the County zoning approvals already granted requires that the developer provide a 10-acre active park, the Applicant has offered to set aside 16 acres for active park use. The Project's plans include bikeways and pedestrian paths throughout the Village, and will include small open-space areas and parks for its residents.

Hospital and Health Care Services. The Applicant is looking for a privately operated urgent care medical service facility could be located in the Project's Commercial Center, and has had discussions with providers of these services who have expressed an interest in locating to the area. Such facilities can be tailored to meet the particular needs of the surrounding area.

Electricity. Electricity for the project will initially be provided from Hawaiʻi Electric Light Company's Mauna Lani Substation via a utility corridor that will extend approximately 2.7 miles to the project site. To meet the needs of the full project development, the Applicant will be constructing a new substation in the area just mauka of the project site. The planning, timing and design of the new substation will be coordinated with HELCO in conjunction with the phasing of the Project. The developer will be responsible for providing all electrical utility improvements required for the Project.

Housing. The Applicant is in the process of constructing at least 400 affordable housing units in accordance with the County's affordable housing guidelines.

Moreover, the Applicant is prepared to contribute its fair share amount for police and fire facilities, solid waste services, parks, and roads as required by zoning Ordinance No. 96-153 or a future zoning approvals.

The discussion about the public infrastructure and services noted above, the project impacts, and proposed mitigation measures are found in Chapter 4 of the Draft EIS.

Thank you for taking the time to respond to the EISPN. Your letter will be included in the EIS.

Sincerely,

James M. Leonard, AICP

c: Bobby Jean Leithead-Todd, Planning Department
Katherine Kealoha, OEQC
Bob Wessels and Steve Dunnington, DW ‘Āina Le‘a Development

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11 COMMENTS AND RESPONSES ON THE DRAFT EIS

The Draft Environmental Impact Statement was sent to the following agencies, organizations and individuals. The official 45-day comment period for the Draft EIS was from May 23, 2010 to July 7, 2010. Where indicated, an agency, organization or individual submitted comment. Comment letters or emails and responses are located on the following pages.

DRAFT EIS RECIPIENT/COMMENTER	DEIS SENT	COMMENT DATE
STATE AGENCIES		
Department of Agriculture	5-21-10	
Department of Accounting & General Services	5-21-10	6-3-10
Department of Education	5-21-10	6-25-10
Department of Defense	5-21-10	7-6-10
Department of Hawaiian Home Lands	5-21-10	6-9-10
Department of Health	5-21-10	
DOH-Wastewater Branch		6-2-10
DOH-Clean Water Branch		6-9-10
Department of Human Services		6-29-10
Department of Land & Natural Resources	5-20-10	
DLNR-State Historic Preservation Division	5-20-10	
DLNR-Division of Forestry and Wildlife		6-10-10
DLNR-Engineering Division		6-29-10
DLNR-Commission on Water Resource Management		7-1-10
DLNR-Division of Aquatic Resources		7-2-10
Department of Business, Economic Development & Tourism	5-21-10	
DBEDT-Office of Planning	5-20-10	7-7-10
DBEDT-State Land Use Commission	5-21-10	7-7-10
Housing Finance & Development Corporation	5-21-10	
Department of Labor & Industrial Relations	5-21-10	
Office of Hawaiian Affairs	5-21-10	7-6-10
Department of Public Safety	5-21-10	
Department of Transportation	5-21-10	7-7-10
University of Hawaiʻi at Manoa Environmental Center	5-20-10	7-6-10
Office of Environmental Quality Control	5-20-10	
University of Hawaiʻi at Manoa Water Resources Research Center	5-21-10	
Office of the Governor	5-21-10	
FEDERAL AGENCIES		
National Resources Conservation Service	5-21-10	6-24-10
U.S. Army Corps of Engineers	5-21-10	
U.S. Department of Fish & Wildlife Service	5-20-10	7-7-10
U.S. Geological Survey	5-21-10	6-10-10
UTILITIES		
Hawaiian Electric Company	5-21-10	
Hawaiian Telcom	5-21-10	
Waikoloa Water Company	5-21-10	

DRAFT EIS RECIPIENT/COMMENTER	DEIS SENT	COMMENT DATE
Hawai‘i Water Service Company		7-2-10
LIBRARIES		
Bond Memorial Library	5-20-10	
Thelma Parker Memorial Library	5-20-10	
Hawai‘i State Library	5-20-10	
DBEDT Library	5-20-10	
UH-Manoa Hamilton Library	5-20-10	
Legislative Reference Bureau	5-20-10	
UH-Hilo Library	5-20-10	
Kailua-Kona Library	5-20-10	
COUNTY DEPARTMENTS		
Office of the Mayor	5-21-10	
Department of Environmental Management-Solid Waste Division	5-21-10	5-26-10
DEM-Wastewater Division	5-21-10	
Department of Finance-Real Property Tax Office	5-21-10	
DOF-Public Access, Open Space & Natural Resource Preservation Comm.	5-21-10	
Fire Department	5-21-10	6-24-10
Office of Housing & Community Development	5-21-10	
Police Department	5-21-10	6-7-10
Planning Department	5-20-10	
PD-West Hawai‘i Office	5-21-10	
Department of Research & Development	5-21-10	
Department of Public Works-Building Division	5-21-10	
DPW-Engineering Division	5-21-10	
DPW-Traffic Division	5-21-10	
DPW-Highways Maintenance Division	5-21-10	
DPW-West Hawai‘i Office	5-21-10	
Department of Parks & Recreation	5-21-10	
Department of Water Supply	5-21-10	7-16-10
NEWS MEDIA		
Hawai‘i Tribune-Herald	5-21-10	
West Hawai‘i Today	5-21-10	
Honolulu Advertiser	5-21-10	
Honolulu Star-Bulletin	5-21-10	
Environment Hawai‘i	5-21-10	
ELECTED OFFICIALS		
The Honorable Josh Green, M.D.	5-21-10	
The Honorable Cindy Evans	5-21-10	
County Councilman Pete Hoffman	5-21-10	
COMMUNITY/BUSINESS GROUPS AND ASSOCIATIONS		
Hawai‘i Island Community Development Corporation	5-21-10	
Hawai‘i Leeward Planning Conference	5-21-10	
Kona-Kohala Chamber of Commerce	5-21-10	
Mauna Kea Community Association	5-21-10	
Mauna Lani Resort	5-21-10	
Mauna Lani Resort Association	5-21-10	7-6-10

DRAFT EIS RECIPIENT/COMMENTER	DEIS SENT	COMMENT DATE
Puako Community Association	5-21-10	7-7-10
Waikoloa Community Development Corporation	5-21-10	
Waikoloa Outdoor Circle	5-21-10	
Waikoloa Village Association	5-21-10	
PROPERTY OWNERS		
Waikoloa Land Company	5-21-10	
Bridge ‘Āina Le‘a, LLC	5-21-10	
GROUPS, INDIVIDUALS, AND CONSULTED PARTIES		
Deborah Chang, Island Transitions, LLC	5-21-10	7-1-10
Brian P. Kerr, Esq.	5-21-10	7-4-10
Jennifer Gossart	5-21-10	
Betty Nanimaeole Springer	5-21-10	
Catherine Rosasco Mitchell	5-21-10	
Michael Reimer, Ph.D.	5-21-10	
Roger and Diane Kanealii	5-21-10	
The Nature Conservancy		7-7-10
Lillian Lim		6-1-10
George H. Robertson		7-7-10

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DRAFT ENVIRONMENTAL IMPACT STATEMENT

CORRESPONDENCE

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William P. Kenoi
Mayor

William T. Takaba
Managing Director

Lono A. Tyson
Director

Ivan M. Torigoe
Deputy Director

County of Hawai'i

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
25 Aupuni Street • Hilo, Hawai'i 96720
(808) 961-8083 · Fax (808) 961-8086
http://co.hawaii.hi.us/directory/dir_envmng.htm

May 26, 2010

Mr. Robert Wessels
Managing Partner
DW `Aina Le`a Development, LLC
68-4747 Queen Ka'ahumanu Highway
Kamuela, HI 96743

RE: DEIS
Villages of Aina Le`a
TMK:6-8-001:25, 36, 37 (por.), 38, 39 and 40 (por.) and 6-8-002:19 (por.)

Dear Mr. Wessels,

Please refer to the enclosed comments from our Solid Waste Division.

Thank you for allowing us to review and comment on this project.

Best Regards and Aloha,

Lono A. Tyson
DIRECTOR

enclosure

12640R

County of Hawai'i is an Equal Opportunity Provider and Employer.

SOLID WASTE DIVISION

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

COUNTY OF HAWAII - 108 RAILROAD AVENUE - HILO, HI 96720
HILO (808) 961-8514 WAIMEA (808) 887-3018 KONA (808) 327-3507
Fax: 961-8553 887-3025 327-3506

MEMORANDUM

DATE: May 25, 2010

TO: Lono A. Tyson, Director

FROM: Michael Dworsky, P.E., Solid Waste Division Chief

SUBJECT: Draft EIS for the proposed "The Villages of Āina Le'a" project, TMK: (3) 6-8-001:25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.) – Solid Waste Division Comments

The Draft Environmental Impact Statement (EIS) for the proposed "The Villages of Āina Le'a" project indicates that the undeveloped 1,060 acre Urban area will include a significant number of new single and multi family residential units, centralized commercial and neighborhood centers, recreational facilities, and schools

The existing solid waste transfer station at Puakō Recycling Center and Transfer Station is not adequate for several thousand additional families self hauling garbage. It is recommended that the "The Villages of Āina Le'a" project provides for curbside pick-up of garbage and curbside recycling. An alternative recommendation would be for a transfer station to be built and operated by the owners of the project within the limits of the project site.

Should you have any questions or require additional information, please contact me at (808) 961-8515.

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Lono A. Tyson, Director
Department of Environmental Management
25 Aupuni Street
Hilo, HI 96720

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Tyson:

Thank you for your email dated May 26, 2010 with which you transmitted the comments of the Solid Waste Division to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments to the Draft EIS.

Comment: It is recommended that the "Villages of ʻĀina Leʻa" project provides for curbside pick-up of the garbage and curbside recycling. An alternative recommendation would be for a transfer station to be built and operated by the owners of the project within the limits of the project site.

Response: The developers of the Villages of ʻĀina Leʻa will provide for curbside pick-up of the solid waste throughout the Project, which would include space for multiple bin pick-up for recycling purposes. A statement to this effect will be included in Section 4.11.3 of the Final EIS. Please note that the Applicant will also be preparing a Solid Waste Management Plan that will be prepared according the Department's Solid Waste Management Plan Guidelines and submitted for the Department's approval. In addition, the Applicant will be making a fair-share contribution to the County, per the requirements of its zoning approval, to address the Project's impacts to the County's solid waste facilities and services in the area.

Thank you for your comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

June 1, 2010

JM Leonard Planning LLC
1100 Ainalako Road
Hilo, Hawaii 96721

Re: Aina Lea South Kohala Development

Dear Staff:

I understand that public input is being invited as it relates to the proposed South Kohala Development described as the Villages of Aina Lea. I am writing to express my strong opposition to a project that was originally well studied and planned decades earlier with public goals and public resources preserved and that has now been transformed into a proposal that would have public tax dollars finance private profit making. This development has been advertised to investors as one that will give them a 30% return on their money. FN 1. In my opinion, those kinds of promises cannot be realistically made to private investors unless subsidized by public money.

The developer's newest proposal to create a community facilities district is in essence a subsidy of their private effort with public dollars. The developers' offer to set aside 5 acres as a land preserve offers no resources to maintain and preserve this set aside. The proposal to increase land available for parks within the development means nothing when no resources are committed to maintain the parks.

The original goal to provide some affordable housing is meaningless where the market place has existing affordable housing readily available in the price range proposed. The proposed high density housing project and the proposed roads will burden existing nearby property owners without any meaningful mitigation of that burden. The current hastily thrown up "residential" structures located near the Queen Kaahumanu Highway look like ugly warehouses.

The master developer apparently incorporated in Nevada for the sole purpose of developing the acreage at issue. This land is also owned by an LLC formed in 2009 solely to hold title. Neither entity has any apparent vested interest in the welfare of the people of the State of Hawaii. It is in the nature of businesses to make a profit if they can and it is the obligation of our public agencies and officials to make sure profit taking does not injure the public interest.

For all these reasons, I am providing my written opposition to the Aina Lea project.

Very truly yours,
Lillian Lim
69-1033 Nawahine Place
Waikoloa, Hawaii 96738

FN 1: http://www.capitalasiagroup.com/main.php?go=12

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Lillian Lim
69-1033 Nawahine Place
Waikoloa, HI 96738

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Ms. Lim:

Thank you for your letter dated June 1, 2010 in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments to the Draft EIS in the order they are presented.

Comment: The development has been advertised to investors as one that will give them a 30% return on their money. (FN1) In my opinion, those kinds of promises cannot be realistically made to private investors unless subsidized by public money.

Response: The development is not being subsidized with any public monies. We should point out that the reference to the potential return to investors of 30% is for an investment period of 2.5 years, which equates to approximately a return of 12% per annum. Normally, this might sound a bit high, but with the current banking crisis and tightness in bank credit, it is what is available in the way of investment financing.

Comment: The developer's newest proposal to create a community facilities district is in essence a subsidy of the private effort with public dollars.

Response: As noted above and in Section 1.6 of the DEIS, no County or State funds will be used for the financing of the Villages of ʻĀina Leʻa Project. The use of the community facilities district (CFD) financing does not require any subsidy of public dollars. The CFD bonds that are issued are not an obligation of the County or State and are paid back through a special tax that is assessed to those within the newly created facilities district. This type of financing, however, does have public benefits. In the case of the Villages of ʻĀina Leʻa Project, it will assist in providing for the upgrade of the South Kohala water system and wastewater treatment facilities currently serving Waikoloa Village. It will also provide for new roads and utilities, including those

potentially serving a new DOE school in the area, and the creation of parks and park facilities that will benefit the whole region.

Comment: The original goal to provide some affordable housing is meaningless where the market place has existing affordable housing readily available in the price range proposed. The proposed high-density housing project and the proposed roads will burden the existing nearby property owners without any meaningful mitigation of that burden.

Response: With regards to the value of the affordable housing units, we should point out that the provision of the affordable housing, in addition to being a primary goal of the South Kohala Community Development Plan, is a requirement placed on the developer as part of its prior State Land Use and County zoning approvals. Further, while the demand for the affordable housing units may not be as strong now as it was just a few years ago, we expect that the demand will rise with the recovering of the Island economy and the provision of additional affordable units on the market will only assure that there is a greater abundance and choice of affordable units to those families whose incomes fall within the County's affordable housing guidelines. Related to your comment on the burden placed on nearby property owners from the provision of affordable housing, although your comments are not specific as to the type of burden that the affordable housing and proposed roads will create, the potential impact from these and the proposed mitigation measures are addressed in the Draft EIS. We also note that the nearest existing homes are approximately a mile and a half away from the affordable housing units and should not be significantly impacted by the construction of these units.

We thank you for your comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ʻĀina Leʻa Development, LLC
Steve Dunnington, DW ʻĀina Leʻa Development, LLC

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME LEINAALA FUKINO, M.D.
DIRECTOR OF HEALTH

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

In reply, please refer to:
EMD / WB
Villages of Alna Lea
LUD-3 6 8 001 025
ID#405

June 2, 2010

Mr. Robert Wessels, Managing Partner
DW Aina Lea Development, LLC
68-4747 Queen Kaahumanu Highway
Kamuela, Hawaii 96743

Dear Mr. Wessels:

Subject: Draft Environmental Impact Statement (EIS)
The Villages of Aina Lea, 68-4747 Queen Kaahumanu Highway, Kamuela, HI 96743
TMK (3) 6-8-001: 025, 036, 037 por, 038, 039 and 040 por, & (3) 6-8-002: 019 por

Thank you for allowing us the opportunity to review the draft EIS for the subject project for the development of a residential golf community on 1,060 acres of land, construction of a park and project-related infrastructure including the construction of power-and water-related utilities and a wastewater treatment plant. We have the following comments to offer:

We are pleased to learn that a wastewater treatment plant will be constructed to serve the needs of the development. We encourage the developer to work with the County and utilize recycled water for irrigation and other non-potable water purposes such as the golf course and other open spaces or landscaping areas. Further, any means to reduce greenhouse gas emissions, practice renewable energy, and a reduction in waste is highly recommended.

All wastewater plans must conform to applicable provisions of the Department of Health's Chapter 11-62, Hawaii Administrative Rules, entitled "Wastewater Systems." We do reserve the right to review the detailed wastewater plans for conformance to applicable rules.

Should you have any questions, please contact the Planning & Design Section of the Wastewater Branch at (808) 586-4294.

Sincerely,

MARSHALL LUM, P.E., ACTING CHIEF
Wastewater Branch

c: DOH's Environmental Planning Office (EPO 1-3194)
DOH-WWB's Kona Staff – Mr. Dane Hiromasa
DOH – Hawaii District Health Office
Hawaii County Planning Department, BJ Leithead Todd
JM Leonard Planning, LLC

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Marshall Lum, P.E., Acting Chief
Wastewater Branch
Department of Health,
P.O. Box 3378
Honolulu, HI 96801

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Lum:

Thank you for your letter dated June 2, 2010 (attached) in which you provided your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments to the Draft EIS.

Comment: We are pleased to learn that a wastewater treatment plant will be constructed to serve the needs of the development. We encourage the developer to work with the County and utilize recycled water for irrigation and other non-potable purposes such as the golf course and other open spaces or landscaping areas. Further, any means to reduce greenhouse gas emissions, practice renewable energy, and a reduction in waste is highly recommended.

Response: As noted throughout the Draft EIS, the Project will utilize recycled water and other non-potable sources for irrigation of the golf course and other open space areas. Also, as noted in section 2.4.1 of the Draft EIS, the Project will be guided by a set of sustainable planning and building design guidelines that will help reduce greenhouse gas emissions, encourage use of renewable energy, and reduce waste throughout the Project. These guidelines include the following:

- Conduct site planning to preserve existing resources and natural features
- Promote a "walkable community" through efficient land use centered on a mixed-use village center

- Promote the use of LEED principles in the planning, design, construction, and operation of Project buildings
- Provide a bicycle and pedestrian paths along certain roads within the Project
- Employ natural cooling techniques in building design, orientation, and the use of landscaping
- Encourage the use of renewable energy devices such as solar water heaters and photovoltaics
- Incorporate water-efficient landscaping and landscape methods to minimize evaporation, reduce weed growth and retard erosion
- Irrigate roadside landscaping and the golf course with non-potable water or reclaimed water when feasible
- Use pervious paving instead of concrete or asphalt paving where permitted
- Use natural or grass swales to control water runoff

Comment: All wastewater plans must conform to applicable provisions of the Department of Health's Chapter 11-62, Hawaii Administrative Rules, entitled "Wastewater Systems." We do reserve the right to review the detailed wastewater plans for conformance to applicable rules.

Response: As noted in Section 4.11.2, the Project's WWTP will comply with the requirements in DOH HAR §11-62 relating to "Wastewater Systems." We note that plans for the Project's temporary wastewater treatment plant are currently with the Department of Health's Wastewater Division for preliminary review.

Thank you for your comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ʻĀina Leʻa Development, LLC
Steve Dunnington, DW ʻĀina Leʻa Development, LLC

LINDA LINGLE
GOVERNOR

RUSS K. SAITO
COMPTROLLER

SANDRA YAHIRO
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

JUN - 3 2010

(P)1151.0

Mr. James M. Leonard, AICP
J M Leonard Planning, LLC
1100 Ainalako Road
Hilo, HI 96720

Dear Mr. Leonard:

Subject: Draft Environmental Impact Statement
The Villages of Āina Le'a
Island of Hawaii, South Kohala
TMK: (3) 6-8-001:25, 36, 37 (por.), 38, 39 and 40 (por.) and (3) 6-8-002:19 (por.)

Thank you for the opportunity to provide comments for the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities, and we have no comments to offer at this time.

If you have any questions please have your staff call Mr. David DePonte of the Planning Branch at 586-0492.

Sincerely,

ERNEST Y. W. LAU
Public Work Administrator

DD:lnn
cc: Mr. Robert Wessels, DW Āina Le'a Development, LLC
Ms. B J Leithead-Todd, Hawaii County Planning Department
Mr. Jerry Watanabe, HDO

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Earnest Y.W. Lau
Hawai‘i Department of Accounting and General Services
P.O. Box 119
Honolulu, HI 96810-0119

SUBJECT: THE VILLAGES OF ‘ĀINA LE‘A DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Lau:

Thank you for your letter dated June 9, 2010 in which you provide your comments to the Villages of ‘Āina Le‘a Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ‘Āina Le‘a Development, LLC, we are responding to your comments as presented in your letter.

We understand that, because the proposed project does not impact any of the Department of Accounting and General Services’ projects or facilities, you have no comments to offer at this time.

We appreciate your review of the Draft EIS for the Villages of ‘Āina Le‘a. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

William P. Kenoi
Mayor

Harry S. Kubojiri
Police Chief

Paul K. Ferreira
Deputy Police Chief

County of Hawaii

POLICE DEPARTMENT
349 Kapiolani Street • Hilo, Hawaii 96720-3998
(808) 935-3311 • Fax (808) 961-8865

June 7, 2010

Mr. James M. Leonard, AICP
J.M. Leonard Planning, LLC
1100 Ainalako Road
Hilo, Hawai'i 96720

Dear Mr. Leonard:

RE: The Villages of Aina Le'a

The Draft Environmental Impact Statement on the above-mentioned project has been reviewed, and we are submitting the following recommendations:

- The recommendations mentioned on page 4-10 relative to measures to mitigate the effects of the Project on traffic flow are adequate, and the developer is encouraged to adhere to these recommendations.
- On page 4-31 under 4.12.3 Police Services, there is mention of a mini-station to be located at the Waikoloa Golf Course. This currently is non-existent, leaving only the South Kohala Police Station in Waimea and the Mauna Lani police substation providing police services. It is highly recommended that the developer, community, and County meet to discuss expansion of existing police resources. This Project provides a viable opportunity to construct a police substation that would service the makai areas of the South Kohala district.

Thank you for the opportunity to comment. Should you have any questions, please contact Captain James Sanborn, the South Kohala District Commander, at 887-3080.

Sincerely,

HARRY S. KUBOJIRI
POLICE CHIEF

for HENRY J. TAVARES JR.
ASSISTANT CHIEF
AREA II OPERATIONS

JS:dmv
RS100440

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Henry J. Tavares, Jr., Assistant Chief
County of Hawaii Police Department
349 Kapiolani Street
Hilo, Hawaii 96720-3998

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Assistant Chief Tavares:

Thank you for your letter dated June 7, 2010 (attached) in which you provided your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments to the Draft EIS.

Comment: The recommendations mentioned on page 4-10 relative to measures to mitigate the effects of the Project on traffic flow are adequate, and the developer is encouraged to adhere to these recommendations.

Response: The Developer has committed to implement the recommended traffic-related improvements that are detailed on page 4-10 of the DEIS. Plans for the planned intersection improvements to Queen Kaʻahumanu Highway at the intersection with Mauna Lani Drive, which are consistent with these recommendations, are currently with the State Department of Transportation for review.

Comment: On page 4-31 under 4.12.3 Police Services, there is mention of a mini-station to be located at the Waikoloa Golf Course. This currently is non-existent, leaving only the South Kohala Police Station in Waimea and the Mauna Lani police substation providing police services. It is highly recommended that the developer, community and County meet to discuss expansion of existing police resources. The Project provides a viable opportunity to construct a police substation that would service the makai areas of the South Kohala District.

Response: A correction to Section 4.12.3 deleting reference to the mini-station at Waikoloa Golf Course will be made within the Final EIS. The Developer has committed

to work with the community and County to discuss the expansion of existing police resources in the area.

Thank you for your comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

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

In reply, please refer to:
EMD / CWB

06022PMT.10

June 9, 2010

Mr. Robert Wessels
Managing Partner
DW Aina Le`a Development, LLC
68-4747 Queen Ka`ahumanu Highway
Kamuela, Hawaii 96743

Dear Mr. Wessels:

SUBJECT: Draft Environmental Impact Statement (DEIS)
The Villages of Aina Le`a
Waikoloa, South Kohala, Island of Hawaii, Hawaii

The Department of Health (DOH), Clean Water Branch (CWB), has reviewed the subject document dated May 2010 (received May 25, 2010), and offers these comments on your project. Please note that our review is based solely on the information provided in the subject document and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf.

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.

   b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.

   c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. You are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the start of the construction activities.

b. Storm Water Associated with Industrial Activities for the operation of a Wastewater Treatment Plant with a design flow of one (1) million gallons per day or more.

c. Hydrotesting water effluent.

d. Construction Activity Dewatering.

e. Well Drilling Activities.

f. Occasional or Unintentional Discharges From Recycled R-1 Water Systems.

You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 calendar days before to the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html.

3. For types of wastewater not listed in Item 2 above or wastewater discharging into Class 1 or Class AA waters, you may need an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html.

4. Please call the Army Corps of Engineers at (808) 438-9258 to determine if the subject project will require a Department of the Army (DA) permit(s). Permits may be required for work performed in, over, and under navigable waters of the United States. Projects requiring a DA permit also require a Section 401 Water Quality Certification (WQC) from our office.

5. Please note that all discharges related to the project construction or operation activities, whether or not a NPDES permit coverage and/or 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

If you have any questions, please visit our website at http://www.hawaii.gov/health/environmental/water/cleanwater/index.html, or contact the Engineering Section, CWB, at 586-4309.

Sincerely,

ALEC WONG, P.E., CHIEF
Clean Water Branch

MT:ml

c: Ms. B J Leithead Todd, Hawaii County Planning Department [via fax (808)961-8742 only]
Mr. James M. Leonard, AICP, J M Leonard Planning, LLC
[via email jmleonard@mac.com only]
DOH - EPO # I-3194 [via email only]

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Alec Wong, Chief
Hawaii Department of Health
Clean Water Branch
P.O. Box 3378
Honolulu, HI 96801-3378

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Wong:

Thank you for your letter dated June 9, 2010 in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments to the Draft EIS.

Your letter provides a rather comprehensive listing of the State regulations related to the protection of State waters and provision of clean water, including compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. We appreciate your listing of the applicable regulations and reference to your website that provides the Branch's Standard Comments, the NOI form for notice of discharge activity, and the NPDES application form for potential discharging into Class 1 or Class AA waters. As noted in Sections 4.11.1, Water Systems, and 4.11.4, Drainage, of the Draft EIS, the project will comply with all applicable State and County requirements related to drainage control and water systems. Your letter will be forwarded to the Project engineers for their reference to the applicable regulations and DOH, CWB on-line resources.

We appreciate your review of and comments to the Draft EIS for the Villages of ʻĀina Leʻa. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ʻĀina Leʻa Development, LLC
Steve Dunnington, DW ʻĀina Leʻa Development, LLC

LINDA LINGLE
GOVERNOR
STATE OF HAWAI'I

KAULANA H. R. PARK
CHAIRMAN
HAWAIIAN HOMES COMMISSION

ANITA S. WONG
DEPUTY TO THE CHAIRMAN

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAI'I
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAI'I 96805

June 09, 2010

DW 'Aina Le'a Development, LLC
Attn: Mr. Robert Wessels, Managing Partner
68-4747 Queen Ka'ahumanu Highway
Kamuela, Hawai'i 96743

Dear Mr. Wessels:

Name of Project:	The Villages of Aina Le'a
Island and District:	Hawaii, South Kona
Tax Map Key Nos.:	(3) 6-8-001:25, 36, 37 (por.),38, 39 and 40 (por.) and (3) 6-8-002:19 (por.)

Thank you for the opportunity to review the subject proposal. The Department of Hawaiian Home Lands has no comment to offer at this time.

If you have any questions, please contact our Planning Office at (808) 620-9480.

Aloha and mahalo,

Kaulana H.R. Park, Chairman
Hawaiian Homes Commission

CC: Accepting Authority: Hawaii County Planning Departmenti
Consultant: J M Leonard Planning, LLC

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Kaulana H.R. Park, Chairman
Hawaiian Homes Commission
Department of Hawaiian Home Lands
P.O. Box 1879
Honolulu, HI 96805

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Park:

Thank you for your letter dated June 9, 2010 in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we acknowledge that the Department of Hawaiian Home Lands has no comments to the Draft EIS at this time.

We appreciate your review of the Draft EIS for the Villages of ʻĀina Leʻa. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ʻĀina Leʻa Development, LLC
Steve Dunnington, DW ʻĀina Leʻa Development, LLC

United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Pacific Islands Water Science Center
677 Ala Moana Blvd., Suite 415
Honolulu, HI 96813
Phone: (808) 587-2400/Fax: (808) 587-2401

TAKE PRIDE IN AMERICA

June 10, 2010

Mr. Robert Wessels, Managing Partner
DW ʻĀina Leʻa Development, LLC
68-4747 Queen Kaʻahumanu Highway
Kamuela, Hawaii 96743

Dear Mr. Wessels:

Subject: The Villages of Āina Leʻa, Hawaii, South Kohala, Tax Map Key Nos.: (3) 6-8-001: 25, 36, 37 (por.), 38, 39 and 40 (por.) and (3) 6-8-002:19 (por.)

Thank you for forwarding the subject Draft Environmental Impact Statement for review and comment by the staff of the U.S. Geological Survey Pacific Islands Water Science Center, we regret however, that due to prior commitments and lack of available staff, we are unable to review this document.

We appreciate the opportunity to participate in the review process.

Sincerely,

SSA

Stephen S. Anthony
Center Director

cc: B.J. Leithead Todd, Hawaii County Planning Department, Hilo, Hawaii
James M. Leonard, J.M. Leonard Planning, LLC

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Stephen S. Anthony
United States Department of the Interior
U.S. Geological Survey
Pacific Islands Water Science Center
677 Ala Moana Blvd., Suite 415
Honolulu, HI 96813

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Anthony:

Thank you for your letter dated June 10, 2010 in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we acknowledge that the USGS, Pacific Islands Water Science Center has no comments to the Draft EIS at this time.

We appreciate your participation in the EIS process for the Villages of ʻĀina Leʻa. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ʻĀina Leʻa Development, LLC
Steve Dunnington, DW ʻĀina Leʻa Development, LLC

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
P.O. Box 50004 Rm. 4-118
Honolulu, HI 96850
808-541-2600

June 24, 2010

J.M. Leonard Planning, LLC
1100 Ainalako Rd.
Hilo, HI 96720

Dear Mr. Leonard,

Thank you for providing USDA-Natural Resources Conservation Service (NRCS) the opportunity to review the Draft Environmental Impact Statement for The Villages of AINA LE`A at Waikoloa, South Kohala District, Island of Hawaii. Please find enclosed the NRCS Soil Survey Map and soil reports. In review of this project site location it was found that no Prime or other Important Farmlands exist. With this acknowledged there will not be any farmland conversion impacts to this site or the necessity to complete a Farmland Conversion Impact rating Form (AD-1006). The soil mapping does not identify any hydric soils in this project area. Hydric soils identify potential areas of wetlands. If wetlands do exist, any proposed impacts to these wetlands would need to demonstrate compliance with the "Clean Water Act", and may need an Army Corp of Engineers 404 permit.

The enclosed Soil Survey Map identifies the soil map units in the project area. The soil reports provide selected soil properties and interpretations: Dwellings without Basements, Local Roads and Streets, soil layers with USDA textures, and engineering classifications. The limitation ratings for Dwellings W/O Basements range from moderate to severe. These ratings do not preclude the intended land use, however they do identify potential limitations for the use, which may require corrective measures, increase costs, and/or require continued maintenance.

If you have any questions concerning the soils for this project please contact, Tony Rolfes, Assistant State Soil Scientist, by phone (808) 541-2600 x129 or email, Tony.Rolfes@hi.usda.gov.

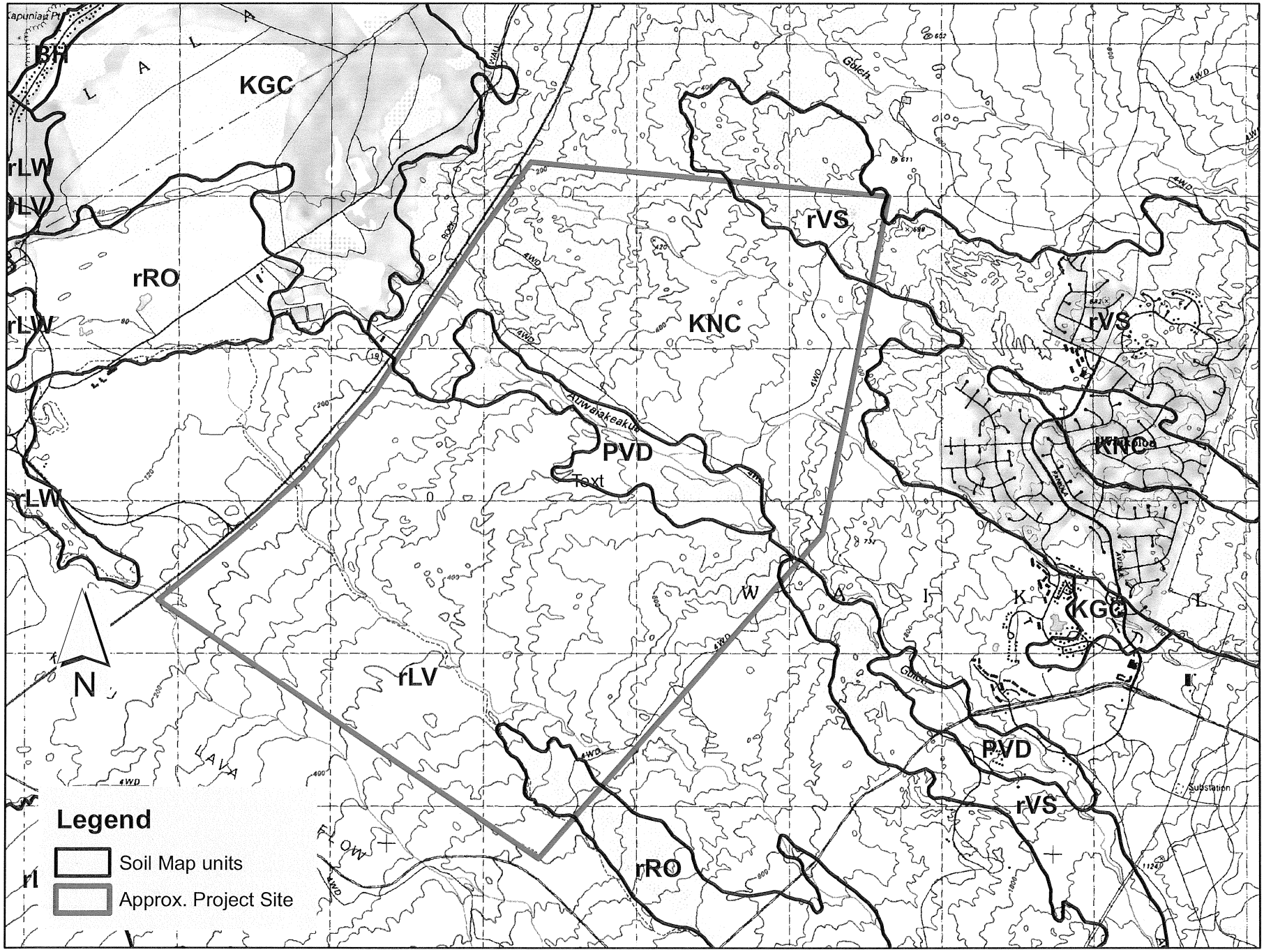
Sincerely,

Lawrence T. Yamamoto
Director
Pacific Islands Area

cc: Michael Robotham, Asst. Director for Soil Science and Natural Resource Assessments, Honolulu, HI

Enclosures:

Soils Map for The Villages of `AINA LE`A



0 0.125 0.25 0.5 0.75 1 Miles

NRCS
6/2010

Selected Soil Interpretations

Island of Hawaii Area, Hawaii

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The table shows only the top five limitations for any given soil. The soil may have additional limitations]

*This soil interpretation was designed as a "limitation" as opposed to a "suitability". The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation.

Map symbol and soil name	Pct. of map unit	ENG - Dwellings W/O Basements (HI) *		URB/REC - Lawn, Landscape, Golf Fairway (HI) *		ENG - Local Roads and Streets *	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KNC:							
Kawaihae, extremely stony	100	Moderate		Severe		Somewhat limited	
		Bedrock (hard) from 20 to 40"	0.20	Fragments > 3" > 30%	1.00	Depth to hard bedrock	0.20
		Slopes 8 to 15%	0.15	Bedrock depth 20 to 40"	0.20	Slope	0.04
		Fragments (>3") 25 to 50%	0.03	Slopes 8 to 15%	0.04	Large stones	0.03
PVD:							
Puu Pa, extremely stony	100	Severe		Severe		Very limited	
		Fragments (>3") >50%	1.00	Fragments > 3" > 30%	1.00	Large stones	1.00
		Slopes 8 to 15%	0.71	Slopes 8 to 15%	0.84	Low strength	1.00
						Slope	0.84
rLV:							
Lava flows, aa, Aa	100	Severe		Not Rated		Very limited	
		Fragments (>3") >50%	1.00			Large stones	1.00
		Slopes > 15%	1.00			Too steep	1.00
rRO:							
Rock land	100	Severe		Not Rated		Very limited	
		Bedrock (hard) < 20" depth	1.00			Depth to hard bedrock	1.00
		Slopes 8 to 15%	0.71			Slope	0.84
rVS:							
Very stony land	100	Severe		Not Rated		Very limited	
		Fragments (>3") >50%	1.00			Large stones	1.00
		Slopes 8 to 15%	0.71			Slope	0.84

Engineering Properties

Island of Hawaii Area, Hawaii

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash.

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percent passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
KNC:												
Kawaihae, extremely stony	0-2	Extremely stony very fine sandy loam	ML-A (proposed)	A-4, A-5	40-55	10-20	75-95	75-85	70-80	50-60	35-45	NP-10
	2-33	Stony loam	ML-A (proposed)	A-4, A-5	10-25	5-10	85-95	85-95	80-95	50-65	35-45	NP-10
	33-43	Bedrock	---	---	0	0	0	0	0	0	0	NP
PVD:												
Puu Pa, extremely stony	0-6	Extremely stony very fine sandy loam	MH-A (proposed), ML-A (proposed)	A-7	35-40	35-40	75-95	75-85	70-80	50-60	40-60	10-25
	6-40	Very stony silt loam, Very stony very fine sandy loam	MH-A (proposed), ML-A (proposed)	A-7	20-30	20-30	85-95	85-95	80-95	50-65	40-60	10-25
	40-50	Extremely cobbly material	GP, GP-GM	A-1	35-40	35-40	5-20	0-5	0-5	0-5	0-10	NP
	50-60	Bedrock	---	---	0	0	0	0	0	0	0	NP
rLV:												
Lava flows, aa, Aa	0-60	Extremely stony material	GP	A-1	30-75	30-75	0-20	0-10	0-5	0	0-14	NP

Engineering Properties

Island of Hawaii Area, Hawaii

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percent passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
rRO:												
Rock land	0-7	Fine sandy loam	ML-A (proposed), SM	A-4, A-5	0-5	0-5	100	100	95-100	40-60	35-45	NP-5
	7-14	Bedrock	---	---	0	0	0	0	0	0	0	NP
rVS:												
Very stony land	0-10	Extremely stony fine sandy loam	MH-A (proposed), SM	A-7	30-50	25-45	90-95	85-90	80-85	35-55	50-60	10-20
	10-60	Extremely cobbly material	GP, GP-GM	A-1	35-55	25-45	0-20	0-10	0-5	0-5	0	NP

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Lawrence T. Yamamoto, Director
U.S. Dept. of Agriculture, NRCS, Pacific Islands Area
P.O Box 50004, Rm. 4-118
Honolulu, HI 96850

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Yamamoto:

Thank you for your letter dated June 24, 2010 in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments to the Draft EIS as presented in your letter.

Comment: Please find enclosed the NRCS Soil Survey Map and soil reports. In review of this project site location it was found that no Prime or other important Farmlands exist. With this acknowledged, there will not be any Farmland Conversion Impacts to this site or the necessity to complete a Farmland Conversion Impact rating Form (AD-1006). The soil mapping does not identify any hydric soils in this project area. Hydric soils identify potential areas of wetlands. If wetlands do exist, any proposed impact to these wetlands would need to demonstrate compliance with the "Clean Water Act', and may need an Army Corp of Engineers 404 permit.

Response: Thank you for your confirmation of the soils that are found on the site, which is consistent with that described in Section 3.3.1 of the Draft EIS. Your note about the absence of any hydric soils or wetlands in the project area is appreciated and will be added to Section 3.3.1 of the Final EIS.

Comment: The enclosed Soil Survey Map identifies the soil map units in the project area. The soil reports provide selected soil properties and interpretations: ... The limitations ratings for Dwellings without basements range from moderate to severe. These ratings do not preclude the intended land use, however, they do identify potential limitations for

the use, which may require corrective measures, increase costs, and/or require continued maintenance.

Response: The developer is aware that there may be limitations to the soils found in the project site for road and building construction purposes and may require corrective measures for the proposed uses. As is noted in Section 3.3.4 of the Draft EIS, soil engineering will be conducted prior to road and building construction to identify appropriate mitigation measures.

Thank you for your comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

William P. Kenoi
Mayor

Darryl J. Oliveira
Fire Chief

Glen P. I. Honda
Deputy Fire Chief

County of Hawai'i

HAWAI'I FIRE DEPARTMENT
25 Aupuni Street • Suite 2501 • Hilo, Hawai'i 96720
(808) 932-2900 • Fax (808) 932-2928

June 24, 2010

Mr. James Leonard
JM Leonard Planning, LLC
1100 Ainalako Road
Hilo, Hawai'i 96720

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT
PROJECT: THE VILLAGES OF AINA LEA
SOUTH KOHALA, HAWAII

In regards to the above-mentioned project, the following shall be in accordance:

Fire apparatus access roads shall be in accordance with UFC Section 10.207:

"**Fire Apparatus Access Roads**

"**Sec. 10.207.** (a) **General.** Fire apparatus access roads shall be provided and maintained in accordance with the provisions of this section.

"(b) **Where Required.** Fire apparatus access roads shall be required for every building hereafter constructed when any portion of an exterior wall of the first story is located more than 150 feet from fire department vehicle access as measured by an unobstructed route around the exterior of the building.

"**EXCEPTIONS:** 1. When buildings are completely protected with an approved automatic fire sprinkler system, the provisions of this section may be modified.

"2. When access roadways cannot be installed due to topography, waterways, nonnegotiable grades or other similar conditions, the chief may require additional fire protection as specified in Section 10.301 (b).

"3. When there are not more than two Group R, Division 3 or Group M Occupancies, the requirements of this section may be modified, provided, in the opinion of the chief, fire-fighting or rescue operations would not be impaired.

"More than one fire apparatus road may be required when it is determined by the chief that access by a single road may be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

"For high-piled combustible storage, see Section 81.109.

"(c) **Width.** The unobstructed width of a fire apparatus access road shall meet the requirements of the appropriate county jurisdiction.

"(d) **Vertical Clearance.** Fire apparatus access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches.

"**EXCEPTION:** Upon approval vertical clearance may be reduced, provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance.

"(e) **Permissible Modifications.** Vertical clearances or widths required by this section may be increased when, in the opinion of the chief, vertical clearances or widths are not adequate to provide fire apparatus access.

"(f) **Surface.** Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities." (20 tons)

"(g) **Turning Radius.** The turning radius of a fire apparatus access road shall be as approved by the chief." (45 feet)

"(h) **Turnarounds.** All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with approved provisions for the turning around of fire apparatus.

"(i) **Bridges.** When a bridge is required to be used as access under this section, it shall be constructed and maintained in accordance with the applicable sections of the Building Code and using designed live loading sufficient to carry the imposed loads of fire apparatus.

"(j) **Grade.** The gradient for a fire apparatus access road shall not exceed the maximum approved by the chief." (15%)

"(k) **Obstruction.** The required width of any fire apparatus access road shall not be obstructed in any manner, including parking of vehicles. Minimum required widths and clearances established under this section shall be maintained at all times.

"(l) **Signs.** When required by the fire chief, approved signs or other approved notices shall be provided and maintained for fire apparatus access roads to identify such roads and prohibit the obstruction thereof or both."

Water supply shall be in accordance with UFC Section 10.301(c):

"(c) **Water Supply.** An approved water supply capable of supplying required fire flow for fire protection shall be provided to all premises upon which buildings or portions of buildings are hereafter constructed, in accordance with the respective county water requirements. There shall be provided, when required by the chief, on-site fire hydrants and mains capable of supplying the required fire flow.

"Water supply may consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of providing the required fire flow.

"The location, number and type of fire hydrants connected to a water supply capable of delivering the required fire flow shall be protected as set forth by the respective county water requirements. All hydrants shall be accessible to the fire department apparatus by roadways meeting the requirements of Section 10.207.

DARRYL OLIVEIRA
Fire Chief

RP:lpc

CC: Robert Wessels, DW Aina Lea Development LLC
BJ LEithead Todd, Hawai'i County Planning Dept

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Darryl Oliveira, Fire Chief
Hawai‘i Fire Department
25 Aupuni Street, Suite 2501
Hilo, HI 96720

SUBJECT: THE VILLAGES OF ‘ĀINA LE‘A DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Chief Oliveira:

Thank you for your letter dated June 24, 2010 (attached) in which you provided your comments to the Villages of ‘Āina Le‘a Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ‘Āina Le‘a Development, LLC, we are responding to your comments.

We appreciate your providing the applicable portions of the Uniform Fire Code regarding design of fire apparatus roads and requirements for the water supply. As noted inTable ES-1 and Section 3.4.6 of the Draft EIS, project access roads and the water supply will be designed in compliance with County regulations and Uniform Fire Code requirements. This statement will be reiterated in Section 4.12.2 of the Final EIS. Your letter will also be forwarded to the Project engineers for their reference.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

LINDA LINGLE
GOVERNOR

~~PATRICIA HAMAMOTO~~
~~SUPERINTENDENT~~

KATHRYN S. MATAYOSHI
INTERIM SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI'I 96804

OFFICE OF THE SUPERINTENDENT

June 25, 2010

Ms. BJ Leithead Todd, Planning Director
County of Hawaii Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Dear Ms. Todd:

SUBJECT: Draft Environmental Impact Statement, The Villages of Aina Le`a, TMK (3) 6-8-001:25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.), South Kohala, Hawaii

The Department of Education (DOE) has reviewed the Draft Environmental Impact Statement for the Villages of Aina Le`a project.

The DOE is familiar with this project and is working towards an agreement for the set aside of a school site with the Applicant.

If you have any questions, please contact Jeremy Kwock of the Facilities Development Branch at (808) 377-8301.

Very truly yours,

Kathryn S. Matayoshi
Interim Superintendent

KSM:to

c: Art Souza, CAS, Honokaa/Kealakehe/Kohala/Konawaena Complex Areas
Robert Wessels, Managing Partner, DW `Aina Le`a Development, LLC
James M. Leonard, AICP, J M Leonard Planning, LLC

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Kathryn S. Matayoshi, Interim Superintendent
Hawai‘i Department of Education
P.O. Box 2360
Honolulu, HI 96804

SUBJECT: THE VILLAGES OF ‘ĀINA LE‘A DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Ms. Matayoshi:

Thank you for your letter dated June 25, 2010 in which you provide your comments to the Villages of ‘Āina Le‘a Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ‘Āina Le‘a Development, LLC, we are responding to your comments to the Draft EIS.

Comment: The DOE is familiar with this project and is working towards an agreement for the set aside of a school site with the Applicant.

Response: As noted in Section 4.12.5 of the Draft EIS, the Applicant has set aside 32 acres for a potential DOE school site. This Section will be expanded in the Final EIS to note that the DOE and the Applicant are currently working towards an agreement for the set aside of the school site, as stated in your letter.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

LINDA LINGLE
GOVERNOR

LILLIAN B. KOLLER, ESQ.
DIRECTOR

HENRY OLIVA
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
Benefit, Employment and Support Services Division
820 Mililani Street, Suite 606
Honolulu, Hawaii 96813

June 29, 2010

Mr. James M. Leonard, AICP
JM Leonard Planning, LLC
1100 Ainalako Road
Hilo, Hawaii 96720

Dear Mr. Leonard:

Thank you for your letter that requests the Department of Human Services (DHS) review the Draft Environmental Impact Statement (DEIS) for the proposed project: The Villages of 'Aina Le'a, a residential golf community in Waikoloa, South Kohala, Island of Hawaii. The Director of the DHS has forwarded your letter to me for a response.

After a review of the DEIS, we do not have any comments or recommendations to approve the project. However, we foresee a potential impact on the need for additional child care services in the community for children under kindergarten-age that is similar to the DEIS' projected increase in the number of school-aged students and potential need for additional public schools due to new residents moving into the project.

If you have any questions or need further information, please contact Ms. Kathy Ochikubo, Child Care Program Specialist, at (808) 586-7058.

Sincerely,

Pankaj Bhanot

Pankaj Bhanot
Division Administrator

c: Lillian B. Koller, DHS Director

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Pankaj Bhanot, Division Administrator
Hawai‘i Department of Human Services
Benefit, Employment and Support Services Division
820 Mililani Street, Suite 606
Honolulu, HI 96813

SUBJECT: THE VILLAGES OF ‘ĀINA LE‘A DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Bhanot:

Thank you for your letter dated June 29, 2010 (attached) in which you provide your comments to the Villages of ‘Āina Le‘a Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ‘Āina Le‘a Development, LLC, we are responding to your comments.

Comment: After a review of the DEIS, we do not have any comments or recommendations to approve the project. However, we foresee a potential impact on the need for additional childcare services in the community for children under kindergarten-age that is similar to the DEIS' projected increase in the number of school-aged students and potential need for additional public schools due to new residents moving into the project.

Response: As noted in Section 4.12.5 of the Draft EIS, the Applicant has set aside 32 acres as a potential DOE school site. Section 4.12.5 will be expanded in the Final EIS to note that the DOE and the Applicant are currently working towards an agreement for the set aside of the school site. Your comment on the potential need for childcare services in the community is well taken and the need for the potential expansion of existing childcare facilities in the area will be noted within Section 4.12.5 of the Final EIS.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

ISLAND
TRANSITIONS LLC

July 1, 2010

Mr. James M. Leonard, AICP
JM Leonard Planning, LLC
1100 Āinalako Rd.
Hilo, HI 96721

SUBJECT: Draft Environmental Impact Statement for The Villages of `Āina Le`a

Dear Mr. Leonard:

Thank you for your letter of May 6, 2010 advising me of the proposed incorporation of "portions of the historic cattle trail into the design of the project components where possible."

First, I want to express my appreciation for the investigation of the historic cattle drive trail that was done in response to my raising the question in January 2008. Helen Wong Smith's follow-up with Sonny Keākeālani in the field and subsequent report on their findings helped to put the historic trail's existence on the map. Sadly, Sonny's father is no longer here to give first-hand information about use of the cattle drive trail. Historic trail use for ranching purposes is an intriguing part of our island's history, and we are fortunate to have remnants of these trails physically remaining to tell the story. In today's world it would be impossible to drive cattle many miles irrespective of who owns the land over which the trail passes. I hope that *The Villages of `Āina Le`a* will see this trail as an opportunity to maintain a connection between the development and the area's historic and cultural values.

I recommend that the historic trail be referred to as a "historic cattle drive trail," rather than simply a "cattle trail," because the latter term implies a trail that was created by cattle, rather than one created and used for a ranching purpose.

Mahalo for responding to my comments.

Sincerely,

Debbie

c: DW `Āina Le`a Development, LLC
Hawaii County Planning Dept.

Deborah L. Chang, LSW • *Principal Planner* • *Specializing In Trails & Access Issues*
P.O. Box 202 • Pa`auilo, Hi 96776-0202 • (808) 776-1516 • hkulaiwi@yahoo.com

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Deborah L. Chang, LSW
Island Transitions LLC
P.O. Box 202
Paʻauilo, HI 96776-0202

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Ms. Chang:

Thank you for your letter dated July 1, 2010 (attached) in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

Comment: Historic trail use for ranching purposes in an intriguing part of our island's history, and we are fortunate to have remnants of these trails physically remaining to tell the story. In today's world it would be impossible to drive cattle many miles irrespective of who owns the land over which the trail passes. I hope that the Villages of ʻĀina Leʻa will see this trail as an opportunity to maintain a connection between the development and the area's historic and cultural values.

I recommend that the historic trial be referred to as a "historic cattle drive trial," rather than simply a "cattle trail," because the latter term implies a trial that was created by cattle, rather than one created and used for a ranching purpose.

Response: As noted in Section 4.4 of the Draft EIS, the Applicant has agreed to preserve portions of the trail, where appropriate, together with interpretive signage as a means of preserving this linkage to the cultural history of the area. Your recommendation on the correct reference to the trail is well taken. It will be referred to as a "cattle drive trail" rather than a "cattle trail" in the Final EIS. We have deleted the term "historic," however, as this might imply an historic rather than cultural significance to the trail. As noted in the 10/26/92 letter from the State Historic Preservation Division, the trail is of limited historic significance.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

HAWAII WATER SERVICE COMPANY
P.O. BOX 384809 • WAIKOLOA, HI 96738 • TEL (808) 883-2046 • FAX (808) 883-2064

July 2, 2010

B.J. Leithead Todd
Planning Director
Hawaii County Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Re: The Villages of 'Aina Le'a – Draft Environmental Impact Statement

Dear Ms. Todd:

The following is in response to the participation notice for review and comments on the Draft Environmental Impact Statement (DEIS) for The Villages of 'Aina Le'a.

Hawaii Water Service Company (HWSC) is an investor owned public utilities regulated by the Hawaii Public Utilities Commission (HPUC) and currently provides water and wastewater services in the greater Waikoloa Village area. DW 'Aina Le'a Development, LLC (Developer) has informed us that they are under a time constraint to complete Phase I and will not be able to construct its own water system in time to provide water service to Phase I. Subsequently, the Developer has requested that HWSC provide temporary potable water service in sufficient quantity to serve the construction and consumption needs of Phase I of the development, which consists of approximately 400 affordable town houses until Developer acquires its own water supply. HWSC is willing to provide temporary water service to the Developer, on a wholesale basis, subject to the terms and conditions set forth in a formal Temporary Water Purchase Agreement (Agreement). HWSC and the Developer are currently in the process of negotiating and finalizing such Agreement.

Since the project is contiguous to our service area on file with the HPUC, HWSC is willing to provide permanent water and wastewater services to the development. However, water and wastewater services are conditioned upon HPUC approval to expand HWSC's utility service area to include the development, the execution of extension agreements requiring Developer to construct and contribute facilities in accordance with HPUC rules and regulations, and fulfillment of the extension agreement's terms and conditions by the Developer. Permanent water and wastewater services would be provided to the development in accordance with HWSC's filed tariffs in effect at the time of service.

HAWAII WATER SERVICE COMPANY
P.O. BOX 384809 • WAIKOLOA, HI 96738
TEL: (808) 883-9355 • FAX: (808) 883-9768

I trust my comments have been constructive and if you have any questions please do not hesitate to call me at (808) 883-2065

Sincerely,

James E. Smith
General Manager

Cc: Mr. Robert Wessels, Managing Partner - DW 'Aina Le'a Development, LLC
James M. Leonard, AICP – J M Leonard Planning, LLC

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

James E. Smith, General Manager
Hawai‘i Water Service Company
P.O. Box 384809
Waikoloa, HI 96738

SUBJECT: THE VILLAGES OF ‘ĀINA LE‘A DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Smith:

Thank you for your letter dated July 2, 2010 (attached) in which you provide your comments to the Villages of ‘Āina Le‘a Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ‘Āina Le‘a Development, LLC, we are responding to your comments.

Your letter confirms that Hawaii Water Service Company (HWSC) is willing to provide temporary water service to the Project for it’s Phase 1 development on a wholesale basis, subject to the terms and conditions set forth in the formal Temporary Water Purchase Agreement (Agreement), and that HWSC and the developer are currently in the process of negotiating and finalizing this Agreement. This will be reflected in Sections 2.3.9.1 and 4.11.1 of the Final EIS.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

HutchinsonBlackandCook
Attorneys at Law

July 4, 2010

DW Aina Le'a Development, LLC

Hawaii County Planning Department

J.M. Leonard Planning, LLC

Office of Environmental Quality Control

Re: Comments of Baine Kerr and Cindy Carlisle, 22 Puako Beach Drive, about DW Aina Le'a ("DWAL") Draft Environmental Impact statement ("DEIS")

Dear Ms. Leithead Todd, et al:

This letter consists of our comments on the DEIS of DWAL submitted May 2010.

STATEMENT OF INTEREST

We have been homeowners in Puako for 22 years and regular, extended-stay visitors there for five years prior. One of us, Baine Kerr, is a lawyer and novelist; the other, Cindy Carlisle, is a public servant—city councilmember and university regent. In 1983-84 we first came to South Kohala during a 13-month leave on a fiction writing fellowship from the National Endowment for the Arts of the U.S. government, during which we lived for several months in Puako then in Waimea. Over the last 27 years we have witnessed the full history of the development of the South Kohala coast; when our tenure began the Mauna Lani Bay Hotel was just opening its doors. Over those 27 years not one has passed without one or both of us spending a significant portion in Puako. We have followed the checkered development history of the property in question from its inception 20 years ago with Nansay Hawaii and Signal Puako. Our concerns about the projects' impacts have not only not abated over time, but grown, and we, like most of our neighbors, have little faith in the latest variant.

We have been on the notice and comment list for the DEIS since last December and very much appreciate this opportunity to respond.

HISTORICAL AND REAL PARTY IN INTEREST CONCERNS

There has been a somewhat mystifying series of owners of portions of the property since Las Vegas developer John Baldwin purchased it. Mr. Baldwin and his Bridge entities have a track record that is worse than checkered, as, we hope, the Planning Department is aware. Bridge or its and Baldwin's affiliates have been regulated and litigated against in numerous states for innumerable improprieties involving gambling and allegations of vote-rigging and permit corruption. We are happy to provide the

documentation we have of those allegations, the final truth of which we of course cannot prove or vouch for. Suffice it to say, Baldwin's and Bridge's enterprises may be the kind of businesses the county should scrutinize very carefully before embracing.

Questions persist about John Baldwin's and Bridge's continuing roles in DWAL as its possible real parties in interest. The principals of DWAL apparently have ties to Baldwin's operations. Of the original 3000 acres only 62 appear to be titled to DWAL and some 300 odd Singaporeans. The majority of those acres remains titled to Bridge Aina Le'a. The claim in the DEIS that DWAL owns all the project land appears to be false. The true status of ownership and investment interests is at best clouded and suspect.

Most importantly, the reliability of DWAL to follow through with the development and housing benefits the county expects is very much in doubt. The Planning Department should be loathe to go forward with a project with so many red flags of unreliability, if not possible chicanery, flying. The DEIS may further be fatally flawed because real parties in interest—Baldwin, Bridge entities, Singaporean owners—are not also applicants.

FINANCIAL CONCERNS

The Office of Planning has plainly been alarmed about the apparent fly-by-night nature of DWAL's investment model. Given the history of litigation and regulatory actions against Baldwin-related enterprises in other states and in Guam, the financial representations of DWAL deserve the most skeptical scrutiny also by Hawaii regulators. Its very peculiar investment model has been referred by the Office of Planning for investigation for possible illegality. Even if the investment scheme were legal, the financial capabilities of DWAL are extremely suspect for reasons given by the Office of Planning.

INSUFFICIENCY OF THE DEIS

The DEIS omits, misrepresents, and minimizes numerous impacts, including the following:

- Groundwater impacts: contradictory data are given based on inadequate testing which does not warrant the rosy claims of negative impacts.
- Coastal water quality impacts: These are not addressed at all even though contaminants from runoff will reach coastal ecosystems.
- Wastewater impacts: The DEIS appears to underestimate the volume of wastewater. No evaluation of impacts of the temporary sewage system is given. The proposed permanent system discussion is silent about processing of sludge. It is slated for agricultural land, which will require a special use approval for which the project may not qualify.
- Transportation impacts: There are no provisions for public transportation, including mass transit.
- Social impacts: The DEIS estimates the project will almost double the population of South Kohala. Of great concern in Puako are the impacts of such urban-scale development on our

- community, beaches, and reef. These are addressed nowhere in the DEIS. Infrastructure and public services impacts are inadequately addressed.
- Highway intersection: The Department of Transportation stated in March 2010 that DWAL had not met environmental review requirements for the highway intersection. It is essential that that intersection be fully laned and signalized and fully environmentally vetted.

LACK OF FEASIBILITY AND GOOD FAITH

DWAL does not deserve the county's trust for reasons that include the following:

1. Its predecessor's history of violations and contempt for official conditions and the apparent continuing role of Bridge Aina Le'a as an adjacent owner and possible silent partner;
2. The pie-in-the-sky and possibly illegal investment scheme;
3. DWAL's inability to meet deadlines: the DEIS deadlines, the March 31 deadline for 16 affordable housing units, and the upcoming November 17 deadline for 385 units that will be impossible to meet;
4. The fact that the endangered red ilima was allowed to become extinct on the property under the ownership of Bridge Aina Le'a (at a time when at least one principal of DWAL may have been involved with Bridge) despite the protection plan for the red ilima that had been recommended by Dr. Evangeline Funk; and
5. The omissions and contradictions in the DEIS.

The Land Use Commission's 2009 decision to revert the land to agriculture was the right one in our view. The Villages of Aina Le'a seem in fact to be The Potemkin Villages of Aina Le'a—false fronts, impressive on paper, but lacking in substance and good faith.

Very truly yours,

Baine Kerr

Cindy Carlisle

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Baine Kerr and Cindy Carlisle
411 Spruce Street
Boulder, Colorado 80302
bkerr@hbcboulder.com
ccarlisle@msm.com

SUBJECT: THE VILLAGES OF ‘ĀINA LE‘A DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Kerr and Ms. Carlisle:

Thank you for your letter of July 4, 2010 (attached) to Planning Director Bobby Jean Leithead-Todd in which you provide your statement of interest, concerns about the Project, and comments to the Villages of ‘Āina Le‘a Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ‘Āina Le‘a Development, LLC, we are responding to your comments pertaining to the Draft EIS and in the order they are presented.

Comment: Historical and Real Party in Interest Concerns – Property Ownership: Questions persist about John Baldwin's and Bridge's continuing roles in DWAL as its possible real parties in interest. The principals of DWAL apparently have ties to Baldwin's operations. Of the original 3000 acres only 62 appear to be titled to DWAL and some 300 odd Singaporeans. The majority of those acres remain titled to Bridge Aina Le'a. The claim in the DEIS that DWAL owns all the project land appears to be false. The true status of ownership and investment interests is at best clouded and suspect.

Most importantly, the reliability of DWAL to follow through with the development "and housing benefits the county expects is very much in doubt. The Planning Department should be loathe to go forward with a project with so many red flags of unreliability, if not possible chicanery, flying. The DEIS may further be fatally flawed because real parties in interest-Baldwin, Bridge entities, Singaporean owners-are not also applicants.

Response: Regarding the ownership of the lands, as stated in Section 1.5 of the Draft EIS, the Applicant, DW ʻĀina Leʻa Development, LLC and Relco Corp. (DWA), are owners of the approximately 1,092-acre property comprising primarily the Urban designated lands in an amended purchase and sale agreement (Agreement) in which Bridge assigned the rights, title and interest in the property to DWA through an installment sale; that is installment payments on an established schedule. A redacted copy of this purchase and sale agreement is found in Appendix A of the Draft EIS. With regard to the investment interests in Parcel 36 of the Property, each investor, who has a tenants-in-common ownership interest in this parcel, has signed a statement that they will not occupy the land and each has given full power of attorney to DWA and the builder to develop the property without any interference by or in consultation with the tenants-in-common owners. The tenants-in common ownership interest for each of the investors will expire following the approximately 30-month investment period. To help clarify this point, an expanded description of the ownership interests in the property will be included in Section 1.5 of the Final EIS.

Comment: Groundwater impacts: contradictory data are given based on inadequate testing which does not warrant the rosy claims of negative impacts.

Response: It is unclear from your comments what data within the DEIS are deemed to be contradictory or which water use or quality testing data was considered inadequate. We note that the information provided on groundwater testing was based on the technical report prepared by Tom Nance Water Resource Engineering (TNWRE), which is included as Appendix F of the Draft EIS. The analysis provided by TNWRE was based on extensive data on the water usage from 52 active and currently inactive potable and brackish wells in the South Kohala coastal area that were drilled between 1961 and 2008. The water quality data from these wells was collected over an extended period, from 2003 to 2009, and data on groundwater use in the area of the project was taken from 2006 to 2008. We disagree with your characterization of the "rosy claims of negative impacts." On the contrary, the TNWRE Assessment goes to considerable length in providing a comprehensive and objective assessment of the potential impacts to water quality and the water resources in the Project area from both the projected potable and non-potable uses.

Comment: Coastal water quality impacts: These are not addressed at all even though contaminants from runoff will reach coastal ecosystems.

Response: The potential impacts to coastal waters are fully addressed in Section 3.5 of the DEIS. Impacts to coastal waters from development can originate from several potential sources, including potential changes to the groundwater flow-rate, project generated nutrients leaching through the substrate to the groundwater, the disposal of treated domestic wastewater, percolation of excess irrigation water, and from storm water run-off. All these potential impacts are addressed within Section 3.5 of the DEIS.

Comment: Wastewater impacts: The DEIS appears to underestimate the volume of wastewater. No evaluation of impacts of the temporary sewage system is given. The proposed permanent system discussion is silent about processing of sludge. It is slated for agricultural land, which will require a special use approval for which the project may not qualify.

Response: The potential wastewater related impacts are addressed in Section 4.11.2 of the Draft EIS. Table 13 within Section 4.11.2 summarizes the projected wastewater flows from the project. This data is taken from the Preliminary Engineering Report prepared by SSFM International, which is included as Appendix D of the Draft EIS. These projected flows were based on the City and County of Honolulu's Wastewater Standards, which are commonly used throughout the State. It is unclear from your remarks why this might generate an underestimate of the projected wastewater volumes or if there is an alternate standard that is suggested.

Regarding the potential impacts of the temporary wastewater plant, the wastewater to be generated through this plant would be a fraction of the total wastewater to the generated by the Project at buildout. The analysis provided in the Draft EIS considers the potential impacts from wastewater disposal at build-out. As stated in Section 4.11.2, the interim plant would be compartmentalized to provide for its components to eventually be relocated and integrated as part of the permanent wastewater treatment plant.

As noted in Section 4.11.2, the sludge produced by the WWTP will be disposed in a manner meeting the Department of Environmental Management and State Department of Health regulations and requirements. The dewatered sludge would be dried and either recycled with compost or shipped to an appropriate disposal facility. The construction of the Project's WWTP on the proposed site will, however, require approval of a Special Permit by the County of Hawai‘i's Leeward Planning Commission, submittal of which will follow after completion of the Final EIS.

Comment: Transportation impacts: There are no provisions for public transportation, including mass transit.

Response: As noted in Section 2.3.8, Project Access, Circulation and Roads, the only public transit currently serving the area of Waikoloa Village is a single bus route provided by the Hawai‘i County Mass Transit Agency between the Village and Kailua-Kona with a single morning pick-up and afternoon drop-off at the Waikoloa Post Office. In response to your comment, it will be noted in Section 2.3.8 in the Final EIS that the primary Project roads will be planned to accommodate bus use, which could include pick-up and drop-off locations, and park-and-ride facilities, should this service be extended to the project. It will also be amended to note that the Applicant is committed to working the County transit officials to include the Project as a potential bus stop for those commuting to Kailua-Kona, when justified by a sufficient number of residents within the development.

Comment: Social impacts: The DEIS estimates the project will almost double the population of South Kohala. Of great concern in Puako are the impacts of such urban-scale development on our community, beaches, and reef. These are addressed nowhere in the DEIS. Infrastructure and public services impacts are inadequately addressed.

Response: The social impacts of the project are addressed within Section 4.10 of the Draft EIS. The potential impacts from increased use of the area beaches is acknowledged within Section 7.2, which addresses the Cumulative and Secondary Impacts of the Project. This potential impact of the growing population to area beaches and reefs will be expanded upon within Section 4.12.1, Recreation, within the Final EIS.

Comment: Highway intersection: The Department of Transportation stated in March 2010 that DWAL had not met environmental review requirements for the highway intersection. It is essential that that intersection be fully laned and signalized and fully environmentally vetted.

Response: The proposed project related intersections will be fully laned and signalized in accordance with the recommendations of the Traffic Impact Analysis Report (Appendix M), and the State DOT requirements. A full description of the planned intersection improvements is contained within Section 4.6, Roads and Traffic, of the EIS.

We thank you for your comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL ST., ROOM 325
HONOLULU, HAWAII 96813
TEL (808) 587-0166 FAX (808) 587-0160

June 10, 2010

DW ʻĀina Leʻa Development, LLC
Mr. Robert Wessels, Managing Partner
68-4747 Queen Kaʻahumanu Highway
Kamuela, Hawaii 96743

Dear Mr. Wessels:

Subject: Draft Environmental Impact Statement (DEIS) for The Villlages of Aina Le`a

Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) have reviewed the DEIS for The Villlages of Aina Le`a and provide the following comments for your consideration. Our previous comments dated November 15, 2000 and included in the DEIS Appendix G remain relevant to this DEIS document.

Botanical surveys of the proposed project area in 1991 found the endangered *Abutilon menziesii* (koʻoloaʻula or red ʻilima). Subsequent surveys in 2000 and 2010 were unable to locate any individuals of this species, however the botanical reports indicated there may still be a viable seed bank. DOFAW is supportive of the recommendation for an additional survey of the project area following a period of extended rain to confirm the presence of the *Abutilon menziesii* in the vicinity of the proposed 5-acre preserve area. If any *Abutilon menziesii* is located, DOFAW is supportive of the recommendation for the preserve area managed using protocols to be developed in consultation with the DOFAW and the U.S. Fish and Wildlife Service. If *Abutilon menziesii* is discovered elsewhere in the project area in proposed construction sites, the applicant should consult with DOFAW on the possible need for incidental take of this species and the development of a State Habitat Conservation Plan.

Thank you for allowing us to review your project.

Sincerely yours,

Randall W. Kennedy

for Paul J. Conry
Administrator

C. DOFAW Botanist, Admin Office

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Paul J. Conry, Administrator
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl St., Rm. 325
Honolulu, HI 96813

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Conry:

Thank you for your memo of June 10, 2010 (attached) to Morris M. Atta, Administrator, DLNR Land Division, in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

Comments: Botanical surveys of the proposed project area in 1991 found the endangered Abutilon menziesii (koʻoloʻula or red 'ilima). Subsequent surveys in 2000 and 2010 were unable to locate any individuals of this species, however the botanical reports indicated there may still be a viable seed bank. DOFAW is supportive of the recommendation for an additional survey of the project area following a period of extended rain to confirm the presence of the Abutilon menziesii in the vicinity of the proposed 5-acre preserve area. If any Abutilon menziesii is located, DOFAW is supportive of the recommendation for the preserve area managed using protocols to be developed in consultation with the DOFAW and the U.S. Fish and Wildlife Service. If Abutilon menziesii is discovered elsewhere in the project area in proposed construction sites, the applicant should consult with DOF AW on the possible need for incidental take of this species and the development of a State Habitat Conservation Plan.

Response: We want to confirm that should *Abutilon menziesii* be discovered within the Project area that is proposed for construction, the applicant or its botanical consultant will consult with DOFAW on the potential need for development of a State Habitat Conservation Plan. This will be noted in Section 3.6 of the Final EIS.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LM/CharleneUnoki
REF.:DEISVillagesAinaLea
Hawaii.279

COMMENTS

(X) **We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone X. The Flood Insurance Program does not have any regulations for developments within Zone X.**

( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone____.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.

( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.

( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.

( ) The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update

( ) Additional Comments: _____

( ) Other: _____

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: _____
CARTY S. CHANG, ACTING CHIEF ENGINEER

Date: 4/29/10

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Carty S. Chang, Acting Chief Engineer
Engineering Division
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Chang:

Thank for your memo of June 29, 2010 (attached) to Morris M. Atta, Administrator, DLNR Land Division, in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

Comment: We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone X. The Flood Insurance Program does not have any regulations for developments within Zone X.

Response: We appreciate your confirmation as to the FIRM designation for the subject property, which will be acknowledged in Section 3.4.1 of the Final EIS, and appreciate your time in reviewing and commenting on the Draft EIS.

Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ʻĀina Leʻa Development, LLC
Steve Dunnington, DW ʻĀina Leʻa Development, LLC

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON

WILLIAM D. BALFOUR, JR.
SUMNER ERDMAN
NEAL S. FUJIWARA
CHIYOME L. FUKINO, M.D.
DONNA FAY K. KIYOSAKI, P.E.
LAWRENCE H. MIIKE, M.D., J.D.

LENORE N. OHYE
ACTING DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

July 1, 2010

RECEIVED
LAND DIVISION
2010 JUL -6 A 8:27
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

REF: Villages of Aina Lea DEIS

TO: Morris Atta, Administrator
Land Division

FROM: Lenore N. Ohye, Acting Deputy Director
Commission on Water Resource Management

SUBJECT: Draft Environmental Impact Statement for Villages of Aina Lea, Hawaii, South Kohala

FILE NO.: NA
TMK NO.: (3) 6-8-001:25, 36, 37 (por.), 38, 39 and 40 (por.) and (3) 6-8-002:19 (por.)

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at http://www.hawaii.gov/dlnr/cwrm.

Our comments related to water resources are checked off below.

☒ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

☐ 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.

☒ 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at http://www.usgbc.org/leed. A listing of fixtures certified by the EPA as having high water efficiency can be found at http://www.epa.gov/watersense/pp/index.htm.

☒ 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at http://hawaii.gov/dbedt/czm/initiative/lid.php.

☒ 6. We recommend the use of alternative water sources, wherever practicable.

☒ 7. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM:
Additional information and forms are available at http://hawaii.gov/dlnr/cwrm/resources_permits.htm.

☐ 8. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water.

☒ 9. A Well Construction Permit(s) is (are) required any well construction work begins.

☒ 10. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

☐ 11. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.

☐ 12. Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

☐ 13. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.

☐ 14. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.

☐ 15. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.

☐ 16. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

☒ OTHER:
The project is located in the Anaehoomalu Aquifer System Area, which has an estimated sustainable yield of 30 million gallons per day. As noted in the report, existing and planned developments in the region may stress the aquifer's ability to support water needs over the long term. The county should consider developing a regional water use and development plan, which considers all existing and future water needs and a coordinated plan to efficiently meet those needs to ensure protection of the water resource.

According to Appendix F, average potable water supply requirements are based on actual consumption at nearby Waikoloa Villages and are somewhat higher that DWS standards. There have been many advances in water conservation fixtures, practices and technology in recent years, and the Commission encourages the applicant to factor in the use and implementation of appropriate water conservation measures. The proposed use of reclaimed water to supplement irrigation needs is also strongly supported.

The report indicates that four potable wells will be developed per agreement with the County and that brackish water wells will also be used to supplement irrigation needs. The tables in Appendix F indicate that fresher ground water is found where higher elevation wells are drilled and more brackish ground water underlies lower elevation areas. We could not find any reference to proposed well locations, but are concerned that the application of brackish water over more potable ground water will negatively impact the aquifer.

If there are any questions, please contact Commission staff at 587-0216.

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Lenore N. Ohye, Acting Deputy Director
Commission on Water Resource Management
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Ms. Ohye:

Thank you for your memo of July 1, 2010 (attached) to Morris Atta, Administrator, DLNR Land Division (attached), in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

Comment: We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

Response: The Applicant will continue to work with the County, through its Planning Department and Department of Water Supply (DWS), in incorporating this Project into the County's Water Use and Development Plan. As noted in Sections 2.3.9.1 and 4.11.1 of the Draft EIS, the Applicant has a Water Development Agreement with the Department of Water Supply which obligates the Applicant to develop, construct, and install up to four wells at the ʻOuli Well Fields. Potable water from the ʻOuli wells would be added to the Lalamilo component of DWS' South Kohala system, which will enable the Applicant to draw potable water from that system.

Comment: We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at http://www.usgbc.org/leed. A listing of fixtures certified by the EPA as having high water

efficiency can be found at http://www.epa.gov/watersense/pp/index.htm.
Response: As noted in Section 2.4 of the Draft EIS, the Applicant has committed to promoting the use of LEED principles in the planning, design, construction, and operation of Project buildings, which would include the use of water efficiency measures where practicable.

Comment: We recommend the use of best management practices (BMP) for storm water management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Storm water management BMPs may earn credit toward LEED certification. More information on storm water BMPs can be found at http://hawaii.gov/dbedUczm/initiative/lid.php.

Response: As noted in Section 4.11.4, Drainage, of the Draft EIS, for all grading and grubbing operations, soil erosion prevention and fugitive dust protection mitigation will be practiced through the implementation of Best Management Practices for storm water management, which will also be noted in Section 3.5 of the Final EIS.

Comment: We recommend the use of alternative water sources, wherever practicable.

Response: As noted in several portions of the Draft EIS, the use of alternative water sources, including the use of reclaimed wastewater and brackish water sources for landscape irrigation, is planned as part of the Project's water irrigation system.

Comment: There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Response: As noted in the Draft EIS, the developer and its contractors will comply with all State and County permitting requirements related to storm water management, drainage crossings, and injection wells that could potentially impact ground or surface water conditions. These would include National Pollution Discharged Elimination System (NPDES) permits, Underground Injection Control (UIC) permits, and a determination from the Department of Health as to whether Clean Water Act, Section 401 Water Quality Certification (WQC) will be required for the construction or operation of Project's facilities which might result in any discharge into navigable waters.

Comment: A Well Construction Permit(s) is (are) required before any well construction work begins. Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

Response: Well Construction and Pump Installation Permits will be obtained prior to development and installation of any Project-related wells.

Comment: The project is located in the Anaeho‘omalu Aquifer System Area, which has an estimated sustainable yield of 30 million gallons per day. As noted in the report, existing and planned developments in the region may stress the aquifer's ability to support water needs over the long term. The county should consider developing a regional water use and development plan, which considers all existing and future water needs and a coordinated plan to efficiently meet those needs to ensure protection of the water resource.

According to Appendix F, average potable water supply requirements are based on actual consumption at nearby Waikoloa Villages and are somewhat higher that DWS standards. There have been many advances in water conservation fixtures, practices and technology in recent years, and the Commission encourages the applicant to factor in the use and implementation of appropriate water conservation measures. The proposed use of reclaimed water to supplement irrigation needs is also strongly supported.

The report indicates that four potable wells will be developed per agreement with the County and that brackish water wells will also be used to supplement irrigation needs. The tables in Appendix F indicate that fresher ground water is found where higher elevation wells are drilled and more brackish ground water underlies lower elevation areas. We could not find any reference to proposed well locations, but are concerned that the application of brackish water over more potable ground water will negatively impact the aquifer.

Response: As noted in Section 3.5 of the Draft EIS, the Applicant is committed to working with regional government and private stakeholders to develop a long-term resource conservation plan to efficiently meet projected future needs while ensuring protection of the existing water resources in the Project area.

As noted above in reference to CRWM’s earlier comment, the Applicant has committed the use of LEED principles in the planning, design, construction, and operation of Project buildings, which would include the use of water efficiency measures where practicable. The applicant has demonstrated this commitment through the use of alternative water sources for landscape irrigation and the use of efficient fixtures within its completed affordable housing units.

Regarding potential impacts to the fresh water aquifer, the Project is located mauka of the Highway, between approximately the 150- and 700-foot elevation (above mean sea level). The potable water source to be developed for this Project would be at the ‘Ouli well site, approximately six miles north and mauka of the Project. The Project also plans to obtain potable water on a temporary basis from the Hawaii Water Service Company, which operates the Waikoloa Village water system. Wells for this system are located a few miles mauka of the Project, above Waikoloa Village, at the approximately 1,200 foot elevation. Brackish water underlies the Project site and brackish wells are planned in the area of the adjoining lands just mauka of the Project site to provide irrigation water for the development. Due to the large separation the Project site and potable water sources, the application brackish water within the development is not expected to have any impact

to potable water resources of region. This information will be noted in Sections 3.5 and 4.11.4 of the Final EIS.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

LINDA LINGLE
GOVERNOR

MAJOR GENERAL ROBERT G. F. LEE
DIRECTOR OF CIVIL DEFENSE

EDWARD T. TEIXEIRA
VICE DIRECTOR OF CIVIL DEFENSE

PHONE (808) 733-4300
FAX (808) 733-4287

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

July 6, 2010

Mr. Robert Wessels, Managing Partner
DW 'Aina Le'a Development, LLC
68-4747 Queen Ka'ahumanu Highway
Kamuela, Hawai'i 96743

Dear Mr. Wessels:

Draft Environmental Impact Statement (EIS), The Villages of Aina Le'a,
South Kohala, Big Island of Hawaii, Hawai'i

Thank you for the opportunity to comment on this project. After careful review of the documents in this Draft Environmental Impact Statement, we recommend the installation of 2 (two) 121 db (c) omni-directional sirens, with one being placed in the maintenance area and the second to be placed within the ten-acre park area. Furthermore, we concur with the decision to follow an Archaeological Monitoring Plan in order to insure the protection of archaeological, cultural and historical resources, as well as having a Cultural Impact Assessment performed in advance of the project. Beyond that, we have no further comments to make.

If you have any questions, please contact Ms. Havinne Okamura, Mitigation Planner, at 733-4300, extension 556.

Sincerely,

EDWARD T. TEIXEIRA
Vice Director of Civil Defense

c: BJ Leithead Todd, Hawaii County Planning Department
JM Leonard Planning, LLC ✓

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Edward T. Teixeira
Department of Defense
Office of the Director of Civil Defense
3949 Diamond Head Road
Honolulu, HI 96816-4495

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Teixeira:

Thank you for your letter of July 6, 2010 (attached) in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

Comment: After careful review of the documents in this Draft Environmental Impact Statement, we recommend the installation of 2 (two) 121 db (c) omni-directional sirens, with one being placed in the maintenance area and the second to be placed within the ten-acre park area. Furthermore, we concur with the decision to follow an Archaeological Monitoring Plan in order to insure the protection of archaeological, cultural and historical resources, as well as having a Cultural Impact Assessment performed in advance of the project. Beyond that, we have no further comments to make.

Response: We appreciate your recommendations regarding the planning for State Civil Defense sirens as part of the Villages of ʻĀina Leʻa development. The Applicant, DW ʻĀina Leʻa Development, LLC, will coordinate with County and State Civil Defense agencies to integrate planned Civil Defense measures, including the recommended omni-directional sirens, as part of the phase development of the Project. A statement to that effect will be included in Section 3.4.2 of the Final EIS. We also appreciate your supportive comments regarding the plans for protection of the archaeological, cultural and historic resources within the project area.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

July 6, 2010

Roy A. Vitousek III
Direct Line: (808) 329-5811
Direct Fax: (808) 326-1175
E-mail: rvitousek@cades.com

Via E-mail: jmleonard@mac.com
and
First Class Mail to:

Mr. J. M. Leonard
J M Leonard Planning, LLC
1100 Ainalako Road
Hilo, Hawaii 96721

Ms. B. J. Leithead Todd
Planning Department
County of Hawaii
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Mr. Robert Wessels
DW `Aina Le`a Development, LLC
68-4747 Queen Ka`ahumanu Highway
Kamuela, Hawaii 96743

Re: DEIS, The Villages at Aina Le`a, Waikoloa, South Kohala
TMK (3) 6-8-001: 25, 36-40

Dear Mr. Leonard, Ms. Leithead Todd, and Mr. Wessels:

The purpose of this letter is to comment on the Draft Environmental Impact Statement relative to the above-referenced project on behalf of this firm's client, the Mauna Lani Resort Association (the "Association").

Background

Mauna Lani Resort Association is the master association for the residential and commercial properties located within Mauna Lani Resort ("Resort"). The Association owns and maintains the roadway systems, historic reserves, public access trails, and coastal recreational areas within the Resort. The Resort is located immediately makai of The Villages at Aina Le`a project properties and has direct and immediate interest in the physical, cultural, and social environments of this area, which interests are clearly distinguishable from the interests of the general public.

By letter dated December 17, 2007, the Association, in response to an EIS Preparation Notice ("EISPN") published by Bridge Aina Le`a, LLC, on or about December 8, 2007, advised Constance R. Kiriu of Makani Resources, the representative of the applicant, Bridge Aina Le`a, of its request to be a consulted party relative to the anticipated EIS. This letter was acknowledged on May 6, 2010, by you. On or about May 24, 2010, we received a copy of the Draft Environmental Impact Statement ("DEIS") which is the subject of the following comments.

THE ASSOCIATION'S COMMENTS ON THE DEIS:

1. INTRODUCTION AND SUMMARY

1.2 Change in Scope or Size of Project

At the time the EISPN was published, the project to be covered by the proposed EIS was a 3,000-acre project owned and proposed for development by Bridge Aina Le`a, LLC ("Bridge Aina Le`a"). The applicant at that time was Bridge Aina Le`a and the consultant was Ms. Connie Kiriu of Makani Resources.

The current DEIS purports to relate to the 1,000-acre project purportedly owned and proposed by the new applicant, DW `Aina Le`a Development, LLC, and Relco Corp. The preparer is James M. Leonard of J M Leonard Planning, LLC, and not Connie Kiriu/Makani Resources.

The Association questions whether this is appropriate compliance with Hawaii Revised Statutes ("HRS") chapter 343 and Hawaii Administrative Rules ("HAR") chapter 11-200. Specifically, the EISPN related to a substantially different proposal or project than the DEIS. Thus, the Association questions whether it is appropriate for the current project to essentially skip the EISPN portion of the mandated process and go directly to a DEIS. This approach may prevent potentially impacted persons or entities from full participation in the EIS process.

Further, the project proposed in the current DEIS is a portion of a larger project, i.e., the project which was subject of the EISPN. The Association questions whether it is appropriate to conduct an environmental assessment of a portion of a larger project as opposed to identifying and discussing the potential environmental affects of the entire project. This approach seems to be parceling the larger project and may underestimate the impacts, including the cumulative impacts of the larger project. The Association believes that the environmental impacts of the entire project should be evaluated in a single EIS.

1.4 Applicant

This section states that the applicant is DW `Āina Le`a Development, LLC, and that "It should be noted that Bridge is no longer the applicant for this Project." Although it appears that Bridge Aina Le`a was, as stated above, the applicant referred to the EISPN for The Villages at

Aina Le`a, it remains unclear as to why a new applicant and a new project described in the DEIS can purport to benefit from the previous EISPN. Further, it appears that the DEIS does involve proposed work on lands which are owned by Bridge Aina Le`a and, to that extent, Bridge Aina Le`a will be required to officially request approval of the agency for the proposed action and thus is an "Applicant" within the meaning of HAR § 11-100-2.

1.5 Landowner

The DEIS represents that DW `Āina Le`a, LLC, and Relco Corp. (DW) are owners of 1,092 acres of land in the State Urban and Agricultural Districts. However, a review of Real Property Tax Office records indicates that the only parcel within the project area on which DW `Āina Le`a has a recorded ownership interest is TMK (3) 6-8-001: 036. This parcel appears to be owned by DW `Āina Le`a and more than three hundred other individuals, most of whom have addresses in Singapore. The balance of the TMK parcels appear to be owned by Bridge Aina Le`a. Thus, it is questionable whether the DEIS accurately reflects the current status of land ownership in the Project area. The DEIS should be corrected and appropriate deeds or other instruments attached as exhibits to the DEIS to demonstrate the actual ownership of the subject parcels. Further, the DEIS should contain an explanation of the interests that the three hundred other individuals with addresses in Singapore may have relative to the subject property. It is important to disclose what rights these individuals have in the land, what consent requirements are required from these individuals, if any, and what is the nature of these individual ownership interests in the subject property. A copy of a sample agreement between DW `Āina Le`a and the Singapore-based owners should be attached as an exhibit to the DEIS/FEIS.

It appears that DW `Āina Le`a's funding strategy is founded on selling undivided interests in the parcel to individual investors from Singapore. Attached hereto as **Exhibit A** is a copy of information available on the internet which appears to describe this investment scheme.

The presence of the 300 individuals on title to the property and this investment scheme are relevant issues in assessing the Applicant's ability to perform the conditions in existing land use permits, to perform the actual development of the project as proposed in the DEIS, and to create the public benefits which would offset adverse environmental effects of the project. If the project funding is actually dependent upon attracting individual investors to purchase undivided interests in the land under the affordable housing project, there is a substantial question as to whether this is a financially viable approach to developing a project of this magnitude. If the landowners/developer is unable to obtain conventional financing for the project, and has to resort to this type of highly unconventional financing, this might cast doubt on the Applicant's ability to develop the project as proposed.

The assessment of potential impacts and benefits depends on the developer's ability to complete development of the project, including implementation of mitigation measures. If the Applicant's ability to perform is in question, then this is an important consideration for a permitting agency which could require development of community benefit and other

environmental impact mitigation measures before the developer can proceed with those aspects of the project which will cause adverse impacts. If the developer goes forward with components of the project which will cause substantial impacts on the environment, but then does not complete the project, the impacts of the initial components of the project will not be mitigated and will therefore have greater impact on the environment and the community.

It also appears from the Bridge Capital LLC website that the entire 3,000 acre "Aina lea Property" is for sale. The website, http://www.bccnmi.com/property-listings-hawaii.html, states: The Aina Le`a property, is a fully entitled area with approximately 3000 acres of land boasting panoramic views of western resort coastline of the Big Island . . .." See **Exhibit B**.

The DEIS should contain a complete disclosures of 1) land ownership in the project area, 2) the ability of the developer to complete the development in a timely manner, and 3) the landowner's intentions relative to development and/or ale of the property.

2. DESCRIPTION OF THE PROJECT

2.1.2 Previous Master Plans for 3, 000 Acres Known as The Villages of `Āina Le`a

This section again raises a question of why the DEIS covers only approximately 1,000 acres when the totality of the project is 3,000 acres. The Association questions whether the DEIS should cover the overall Master Plan for Villages at Aina Le`a and not simply a smaller component thereof.

2.3.4 Residential Golf Community

It appears from the DEIS that the developer is proposing only those uses which are consistent with the standards contained in the County of Hawaii Zoning Code for single family residential and multi-family residential lots. Insofar as timeshare units are not a permitted use in the single or multi-family districts it appears that the DEIS does not contemplate and does not assess the potential impacts of any timeshare or fractional interval ownership use of the project.

2.3.6 Commercial Village and Mixed-Use Center

The DEIS states that there is a 36-acre commercial village comprised of 340,000 sq. ft. of gross floor area planned. It states that the commercial center "would be set back approximately 500 feet from the highway."

In the Land Use Commission Decision and Order and other sections of the DEIS, there are references to a required setback from the highway which averages 1,200 feet. The proposed location of the commercial area within 500 feet of the highway seems inconsistent with the 1,200-foot setback and may cause a significant adverse visual impact from the highway and from the Mauna Lani Resort. The location of the commercial area approximately 500 feet from the highway seems inappropriate and should be reassessed.

The Association had understood that the 1,200-foot buffer zone along the highway would be a conservation area, left essentially in its natural condition, and perhaps protected by a conservation easement under HRS chapter 198 or some other form of formal, recorded protection. The natural lava and landscape along the side of the road is characteristic of this area and has previously been preserved in the context of existing major resorts.

If the commercial development is located in close proximity to the highway, it will change the visual character of the area which will be an adverse environmental effect. The 1,200-foot setback was a mitigation measure intended to limit the adverse environmental effect. Thus it appears that the project proposed in the DEIS is actually a retreat from the mitigation measures approved by the Land Use Commission and identified in the General Plan and South Kohala Regional Plan.

2.3.8 Project Access, Circulation and Roads

The Association strongly supports the developer's proposal to construct a fully channelized and signalized intersection at the intersection of the main project access road, Queen Ka`ahumanu Highway, and Mauna Lani Drive. The Association believes that the signalized intersection at this location is appropriate to mitigate adverse traffic impacts of the project and to promote traffic safety. <u>The Association believes that the fully channelized/signalized intersection at the main access road should be installed and operational before completion of Phase I of the development and before certificates of occupancy are issued for any residential structures in the project area.</u>

2.3.9.1 Domestic Water

The DEIS seems to state that initially potable water for the project will be provided pursuant to a "temporary" arrangement with the West Hawaii Water Company ("WHWC"). The DEIS evaluates potential adverse environmental effects of running a water line from WHWC's distribution system across Ag-zoned land to the project area.

The DEIS states that "Any permanent arrangement with WHWC to provide domestic water to the affordable housing units or various phases of the Project must be approved by the Public Utilities Commission."

The DEIS also states that in the long term, potable water supply requirements for the project will be met with the construction of four wells in the Ouli Well Field along with related transmission and storage improvements connecting the Ouli Well Field to the Lalamilo Water System. The DEIS does not evaluate potential environmental impacts of the water distribution system from the Ouli Well Field to the project area.

The Association is concerned about the adequacy of the DEIS to the extent it does not include evaluation of the infrastructure required to provide a <u>permanent</u> water supply to the project. In order to adequately evaluate the long-term impacts of the project as required by HRS

ch. 343, the DEIS should evaluate the potential impacts resulting from development of a permanent water system to supply potable water to the greater project.

There appear to be some discrepancies in the estimates of average daily consumption of potable water. Section 2.3.9.1 states 1.3 MGD use of potable water and in other sections potable water demand is estimated to be .29 and .63 MGD. These inconsistent estimates have significant impacts both in terms of potable water demand and estimates of the volume of wastewater. These figures should be appropriately corrected in the Final EIS and the potential impacts assessed accordingly.

2.3.9.2 Irrigation Water

The Association has a significant issue with potential for adverse impacts on Mauna Lani Resort's current use of nonpotable irrigation water from on-site wells in its Resort area. The DEIS does not adequately address the issues associated with sufficiency of groundwater in this mauka/makai corridor to accommodate the project and the existing uses by other areas, including the Mauna Lani Resort. In the "Assessment of the Potential Impact on Water Resources of the Development of the Aina Lea Village Project in South Kohala Hawaii" prepared by Tom Nance Water Resource Engineering, Mr. Nance states:

> The most significant long term issue in the development of the Aina Lea is the sufficiency of the groundwater flowrate in the project's mauka-makai corridor to accommodate its use and the planned use of groundwater by others. In the 3.6-mile coastal segment between Ohai Point and Makaiwa Bay, the total (natural) groundwater flowrate is probably on the order of 35 to 40 MGD (discounting ongoing pumpage by wells). The safely developable long term supply is probably on the order of 12 to 18 MGD. **Pumpage in excess of that would likely result in steady salinity increases, particularly in the irrigation wells closer to the shoreline in Mauna Lani Resort**.. . . Present pumpage of about 10 MG has produced stable salinity levels in all the wells, although **salinities in some of the MLR wells are near the maximum useable for golf course irrigation**. Possible future use of up to 23 MGD may not be sustainable by pumpage from wells in this mauka-makai corridor alone. This potential shortfall could be offset, to at lease some extent, by maximizing irrigation reuse of treated wastewater effluent from Waikoloa Village and Mauna Lani Resort. [Emphasis added.]

The DEIS does not adequately address the potential adverse environmental effects of on-site irrigation water wells for the project. The suggestion of using reclaimed wastewater, although theoretically helpful, lacks sufficient specificity to demonstrate that the project could be

developed in a manner that does not cause significant adverse harm to existing down-gradient users of irrigation water.

The Applicant's proposed means of mitigating the problem will be "the Applicant will work with regional and government stakeholders to develop a long-term resource conservation plan to address short-term and long-term efforts towards resource sustainability." DEIS at p. 3-19. Unfortunately, even since receiving Mr. Nance's assessment of potential impacts of water resources in January 2009, in which Mr. Nance specifically identified "the most significant long-term issue" as being the effect on irrigation wells in the Mauna Lani Resort, the Applicant has not contacted the Association to discuss this issue.

The Association believes that the DEIS is not adequate in assessing the potential adverse effects of nutrient additions to groundwater, treatment and disposal of domestic wastewater, percolation of excess golf and landscape irrigation water into the groundwater under the project. Any nutrient input or golf course or landscape chemicals which find their way into the groundwater will move down gradient to the Mauna Lani Resort and to the nearshore coastal waters.

2.4 PROJECT AND PROJECT DISTRICT DEVELOPMENT STANDARDS

Sec. 2.4.1 includes a summary list of sustainable planning and building design guidelines. This list is totally inadequate assessment of potential design criteria for an energy-efficient sustainable community. State-of-the art community layout, architectural design alternatives, energy generation and use, energy-efficient home design, transportation networks, and the like have evolved significantly and rapidly over the last few years. Proposing a major development in an environment which is hot, dry, and windy, the Applicant should be identifying specific measures to reduce energy consumption, reduce reliance on electrical energy generated by fossil fuels, and reliance on petroleum-fueled vehicles. The Applicant is missing a tremendous opportunity to develop its community in a state-of-the-art sustainable fashion and in a manner which could mitigate the significant adverse environmental impacts of developing a very large mixed-use project in this environment. The Association believes that the DEIS is inadequate in that it does not thoroughly, carefully, and specifically address what can be done in the planning and design, construction and operation of the project to promote sustainability.

2.5 DEVELOPMENT TIMETABLE AND PRELIMINARY COSTS

2.5.1 Development Phasing and Timetable

It appears that Applicant is proposing a Phase I of The Villages would include the development of 385 affordable townhouse units which would "take place in a three-year period commencing February 2009 through 2012." The Association understood that Applicant is under a deadline imposed by the Land Use Commission to complete construction of the affordable units by November 2010.

The DEIS states that development of Phases I and II will extend to and not beyond 2015 and that all phases of the development will be completed within a 10-year build-out schedule (see § 2.5.2, 1st par.). The Association understands that the DEIS is qualified by the timing of the action as set out in this statement.

3 DESCRIPTION OF AFFECTED ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

3.1 Climate

Again, the DEIS assessment and discussion of using the climatic features of the region to promote sustainability is totally inadequate. While one would not expect the project to have an impact on the climatic conditions, the climatic conditions will have an impact on the project. The DEIS should be carefully evaluating how to minimize energy consumption (including air conditioning) through intelligent design.

3.3.4 Current Agricultural Activities on Property

The DEIS overestimates the potential positive impacts of the project on agricultural resources in the area. The facts that restaurants may purchase local agricultural products or that residents may have gardens are not significant positive effects and should not be offered as potential positive benefits of the project.

3.4.4 Earthquakes

The statement that while a significant earthquake occurred in the area in October 2006, "no damage was evident on the subject Property" is absurd as there was no development on the subject property in 2006.

3.4.5 Volcanic Activity

The property is clearly exposed to risk of lava flow inundation as indicated by (1) the close proximity of the 1859 Mauna Loa lava flow and (2) the fact that there are Mauna Loa flows north of the project.

3.4.6 Wildland Fires

The Applicant should be required to develop a wildfire plan and emergency preparations plan. This should be required before completion of Phase I of the project.

Flooding and Tsunami

The Auwaiakeakua Gulch is subject to flooding which can result in damage to the property and/or cause runoff entering the Mauna Lani Resort property in the vicinity of Puako

and entering the nearshore waters. There may be significant siltation impacts from flooding in the Auwiakeakua Gulch and other gulches that run through the subject property.

3.5 HYDROLOGY AND WATER RESOURCES

The concerns relative to groundwater resources have been discussed under a previous section of this comment letter. This is a significant issue affecting the Mauna Lani Resort and the development of the project itself. The DEIS does not adequately evaluate the impacts of the observation of project consultant, Tom Nance, that additional brackish water wells on the subject property may result in significant increase in the levels of salinity of groundwater which may prevent use of groundwater for irrigation purposes down gradient from the subject property.

3.6 BOTANICAL RESOURCES

The DEIS is not entirely clear on this issues, but it appears that the red `ilima (*Abutilon menziesii)*, an endangered species, was found in the 1991 survey which recommended protection and preservation of this species in its habitat. In surveys conducted in 2000 and 2010, no evidence of the red `ilima was found in the area where it had initially been identified. This information suggests that the owners/developers of the project area have, through inactivity, allowed a colony of endangered species to die out. This history of performance should be taken into consideration when the Applicant is proposing mitigation measures or making representations as to what it intends to do to avoid environmental impacts.

4 DESCRIPTION OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

4.1 Historical Perspective of Region and Property

The DEIS is in error in stating that Parker Ranch sold 3,000 acres to Nansay Hawaii, Inc. in 1960. The Association understands that Parker Ranch sold the property to Signal Puako Corporation and that Nansay purchased the property from Signal Puako in the late 1980s.

4.6 Roads and Traffic

Again, the Association <u>supports</u> the Applicant's commitment to develop the intersection of the main project road, Queen Ka`ahumanu Highway, and Mauna Lani Drive as a fully channelized and signalized intersection. The DEIS assumes this to be the condition of the highways for its post-project assessment in the TIAR.

4.9 Visual and Scenic Resources

The Association is concerned about the visual impact of the project, particularly with the visual impact of the commercial area located within 500' of Queen Ka`ahumanu Highway.

The Association is unclear as to why the simulations on Figure 15 are blurred in the copy of the DEIS received by the Association. If this is a technical or printing issue, hopefully it can be corrected. Even in a moving car on Queen Ka`ahumanu Highway a person would have a sharply focused view of the commercial buildings 500' mauka of the road.

4.10 Socio-Economic Environment

The DEIS proposes that, when built out, the project will add 5,780 residents to the South Kohala district. This would represent a 44% increase over the population of South Kohala since 2000.

This is a very significant population increase in this community. The DEIS states that the increased population will have most significant impacts on Waikoloa Village. The Association questions this assumption is very concerned that the DEIS does not appear to assess potential impacts of the increased population on coastal and recreational areas and amenities along the Kohala Coast, including public access facilities in the Mauna Lani Resort.

The Association submits that the DEIS does not adequately assess the environmental, cultural, and social impact arising out of the significantly increased population resulting from development of this project. The residents of the project will go to the coast for recreation, exercise, and gathering. The residents of the project will walk the trails, go to the beaches, fish, dive, and surf in the nearshore waters and otherwise use the coastal resources of the region as primary amenities of living in this area. The increased population will have significant adverse environmental effects on existing recreational, historical, and other public facilities in the area, including the facilities located in the Mauna Lani Resort and owned and operated by the Association. The DEIS wholly fails to evaluate the impacts which residents of the project will have on coastal resources and wholly fails to identify any appropriate mitigation measures.

Section 4.10.2 states that the residential component of Mauna Lani Resort consists primarily of timeshares and vacation rental units (p. 4-19). <u>This is an incorrect statement</u>. There are currently no timeshare units in the Mauna Lani Resort. The only parcels in Mauna Lani Resort which may be used for timeshare purposes are those identified for resort use. These are Mauna Lani Bay Hotel, the Orchid at Mauna Lani, and a portion of Lot "M." Mauna Lani Resort consists primarily of residential units which are not timeshares or vacation rentals. The Resort would expect that had the Applicant actually met with and interviewed nearby property owners, it would be aware that the Mauna Lani Resort does not consist primarily of timeshares and vacation rental units.

Section 4.10.4 discusses the potential positive impacts on employment resulting from employment from the project. While there may be increases in construction employment during build-out of the project, the Applicant's ability to build the project depends on the availability of financing. If there is no financing, there is no construction and no benefit from employment. For example, the July 1, 2010, *West Hawaii Today* had a news article about contractors and

subcontractors at DW `Āina Le`a not being paid by the Applicant. One subcontractor was quoted as saying, "We put all our savings and everything, thinking this is a great project." The Association believes that the DEIS should contain information which demonstrates that the Applicant will have financial wherewithal to construct the project and to provide the purported benefit of construction employment.

Section 4.12.1 with respect to "Recreation," totally ignores use of public access amenities of the Mauna Lani Resort by residents of the project. There are no mitigation measures discussed or proposed. Clearly, a significant potential effect of the project is the use of coastal areas by residents of the project. These impacts have to be addressed specifically and in detail.

4.11.2 Wastewater

The Association is concerned about potential impacts on the Mauna Lani Resort down slope of the project. The Resort proposes that the FEIS contain a discussion of the Applicant's specific proposal for disposal of liquid sludge from the wastewater treatment plant. The Association is concerned that the DEIS simply passes the issue to future governmental decision-making.

4.11.3 Solid Waste

The DEIS proposes that solid waste will simply be trucked to Pu`uanahulu Landfill or taken by individual residents to the Puako solid waste transfer station. The Association believes that the DEIS should contain a serious discussion of potential recycling and waste stream reduction and should evaluate potential mitigation measures both on-site and off-site dealing with the stream of solid waste.

4.11.5 Electrical and Communications Systems

The DEIS contains no meaningful discussion of developing alternative energy generation facilities on or near the project site. Given the climate conditions at the location of the project, utility-scale solar electric generation facilities would be feasible at or near the project and could substantially reduce the project's impact on existing electrical systems and on the use of electrical power generated through burning fossil fuels.

A DEIS in 2010 should thoroughly assess potential use of alternative energy to reduce environmental impacts.

6.3 CHAPTER 205A, HRS, COASTAL ZONE MANAGEMENT (CZM) ACT

The Association submits that the DEIS fails to adequately assess potential impacts on coastal areas resulting from a significant increase in population, from increase of groundwater, from potential input into groundwater, and other potential causes. The DEIS simply fails to

assess the extent to which the proposed project is consistent with all of the objectives, policies, and guidelines of the CZM program.

6.5 COUNTY GENERAL PLAN

6.5.1 Land Use Pattern Allocation Guide (LUPAG)

The DEIS does not address the measures used to preserve the open space/conservation area along Queen Ka`ahumanu Highway. The assessment of General Plan's concerns for natural resources and shoreline on page 6-9 of the DEIS is inadequate.

The measures which could be implemented to address sub-policy 2.2 relating to bicycle and pedestrian pathways are adequate.

7.2 CUMULATIVE AND SECONDARY IMPACTS

The cumulative impacts section appears to be the only place where the potential impact of the project on recreational facilities and shoreline access is mentioned. Again, the DEIS is inadequate for its failure to assess the potential impacts on coastal recreational facilities and shoreline access caused by the subject property.

CONCLUSION

The Mauna Lani Resort Association thanks you for the opportunity to comment on the DEIS. If you have any questions please contact me in writing at Cades Schutte LLP, 75-170 Hualalai Rd., Ste. B-303, Kailua-Kona, Hawaii 96740 or by email at rvitousek@cades.com.

Very truly yours,

Roy A. Vitousek III
for
CADES SCHUTTE
A Limited Liability Law Partnership

encl. Exhibits A and B

cc: Sandra A. Patton, Mauna Lani Resort Association

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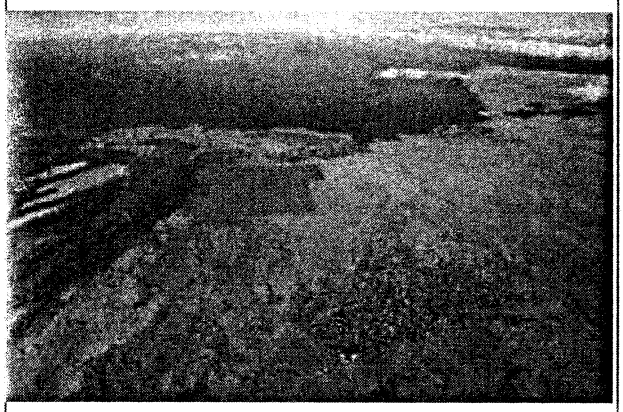

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There will be a Hotel Seminar on 21th April (Wednesday) at Novotel Clarke Quay, 177A River Valley, Singapore 179031. Registration starts at 6:30pm.

*LIMITED SEATS, please contact me to secure your seats. If u are interested to attend, please let me know by Monday, 19 April 2010, 5pm.

Mr. STEVEN NGOI
SHMC GLOBAL GROUP (Real Estate Division)
MARKETING MANAGER
HP: (65) 93218039
Email: stevenngoi.shmcproperty@gmail.com

Visits: 39

EXHIBIT A

Barbara Huitt

From: Randy Vitousek
Sent: Friday, May 07, 2010 12:15 PM
To: Randy Vitousek
Subject: Emailing: HAWAII_REAL_ESTATE_INVESTMENT_THE_VILLAGES_OF_AINA_LE_A.htm

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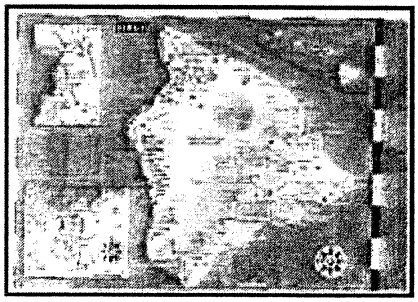

Asking Price: **$96,000**
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City: The Villages of Aina Le A
State/Province: Hawaii
Country: US
Type: Lot

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The Villages of Aina Le'a: Phase 1 (Lot D-1-B)
* Your 7 Key Assurances To This Investment:
1. You own the Land Title to the property
2. USD 35 million Performance Bond to ensure completion
3. Completion of Townhouses by Nov 2010
4. Ready Buyers in place to ensure your exit
5. Assured Time Frame and Returns - Assurance bound by contract
6. Public Offering Statement is duly recorded and registered with the Hawaiian Authorities
7. World's LARGEST construction risk management company, HILL INTERNATIONAL INC. (HRD TRUST SERVICES INC.) appointed as your oversight Trustee.
As a sign of the Massive Scale, Demand and Prestige of this project, even some of the largest property companies in Singapore are involved!

We invite people from ALL NATIONALITIES, SINGAPOREAN and FOREIGN investors, to participate in this exciting and prestigious project:
Min. investment: USD 9,600 per unit
Exit within 30 months: USD 12,500 per unit (As stipulated in the contract)
Profit: USD 2,900
Assured ROI: 30% in 30 months (12% p.a.)
For a private appointment to find out how you can grow your money in this real estate participation and get ASSURED RETURNS OF 30% WITHIN 30 MONTHS, please contact:
Mr. STEVEN NGOI
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Waiakea Villas

Hilo, Hawaii

Located in the in the heart of Hilo on the Big Island of Hawaii, the Waiakea property consists of a mixture of 157 studio and one bedroom condos as well as additional commercial units. The property is situated less than a mile from Hilo's international airport and is near the ocean and adjacent to picturesque Wailoa Park.

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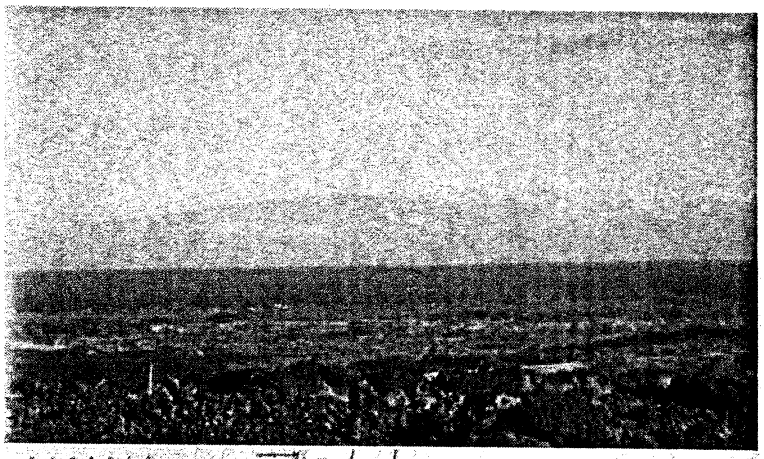
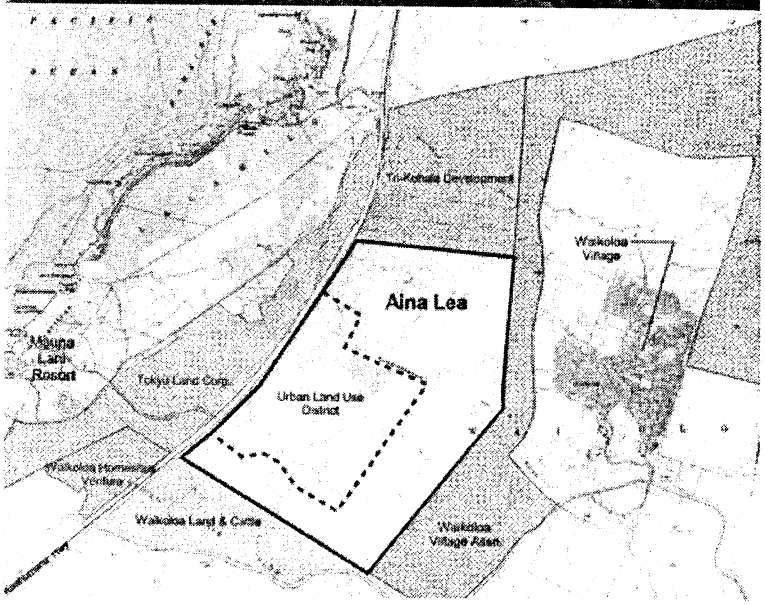
EXHIBIT B

Aina Lea

The Aina Le'a property, is a fully entitled area with approximately 3000 acres of land boasting panoramic views of western resort coastline of the Big Island and less than three minutes by car to the Pacific Ocean. The property is located overlooking the famed Kohala Coast of Hawaii Island ("The Big Island"). The major coastal highway, Queen Ka'ahumanu Highway, runs along the western border of the property.




Tri-Kohala Development
Waikoloa Village
Aina Lea
Mauna Lani Resort
Tokyu Land Corp.
Urban Land Use District
Waikoloa Homestead Venture
Waikoloa Land & Cattle
Waikoloa Village Assn.

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Roy A. Vitousek III
Cades Schutte LLP
75-170 Hualalai Road, Suite B-303
Kailua-Kona, HI 96740

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Vitousek:

Thank you for your letter of July 7, 2010 (attached) in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS) on behalf of the Mauna Lani Resort Association. As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

Comment: 1.2 Change in Scope or Size of Project
At the time the EISPN was published, the project to be covered by the proposed EIS was a 3,000-acre project owned and proposed for development by Bridge Aina Le'a, LLC ("Bridge Aina Le'a"). The applicant at that time was Bridge 'Aina Le'a and the consultant was Ms. Connie Kiriu of Makani Resources.

The current DEIS purports to relate to the 1,000-acre project purportedly owned and proposed by the new applicant, DW 'Aina Le'a Development, LLC, and Relco Corp. The preparer is James M. Leonard of J M Leonard Planning, LLC, and not Connie Kiriu/Makani Resources.

The Association questions whether this is appropriate compliance with Hawaii Revised Statutes ("HRS") chapter 343 and Hawaii Administrative Rules ("HAR") chapter 11-200. Specifically, the EISPN related to a substantially different proposal or project than the DEIS. Thus, the Association questions whether it is appropriate for the current project to essentially skip the EISPN portion of the mandated process and go directly to a DEIS. This approach may prevent potentially impacted persons or entities from full participation in the EIS process.

Further, the project proposed in the current DEIS is a portion of a larger project, i.e., the project, which was subject of the EISPN. The Association questions whether it is appropriate to conduct an environmental assessment of a portion of a larger project as opposed to identifying and discussing the potential environmental affects of the entire project. This approach seems to be parceling the larger project and may underestimate the impacts, including the cumulative impacts of the larger project. The Association believes that the environmental impacts of the entire project should be evaluated in a single EIS.

Response: While there has been a change to the property ownership and to the consultants used in the preparation of the EISPN and the Draft EIS for this project, these aspects are not relevant to meeting the environmental review objectives of Chapter 343 of the Hawaii Revised Statutes (HRS), and the requirements and procedures of the Environmental Impact Statement Rules set forth in Title 11, Chapter 200 of the Hawai‘i Administrative Rules (HAR). With regards to the change to the project scope, the Project, through the sale of the predominately urban core of the original 3,000 acres, is reduced somewhat in size. The Project location has not changed and the conceptual development plan for this central portion of the project site has not changed between that described in the EISPN and the Draft EIS. Further, the description of the affected environment, potential impacts, and mitigation requirements; relationship to land use plans, policies and regulations; alternatives; and findings contained within the EISPN are not changed by the reduction of the size and scope of the Project.

Finally, the Project as described in the EIS is not part of a larger project. DW ‘Āina Le‘a Development, LLC’s (DW) entire project is to develop the approximately 1,128-acre Project described in the Draft EIS. There will be no later phase by DW to develop the balance of the agriculturally zoned lands. As noted in Section 1.2 of the Draft EIS, the planned Project District zoning application would apply only to the Applicant’s development of its Urban lands and related infrastructure and community facilities on the adjacent Agricultural lands and would be separate and apart from any future action or development of the adjacent Bridge lands. Further, as stated in Section 1.6 of the Draft EIS, the Draft EIS is not intended to support any permits or approvals that may be required for the potential development of agricultural lots, golf courses, and their related infrastructure on the remaining Bridge lands that make up the balance of the original 3,000 acres. The EIS, therefore, is not a parceling of a larger project as the full scope of the proposed Project is covered in the EIS.

Comment: 1.4 Applicant

This section states that the applicant is DW 'Aina Le' a Development, LLC, and that "It should be noted that Bridge is no longer the applicant for this Project." Although it appears that Bridge Aina Le' a was, as stated above, the applicant referred to the EISPN for The Villages at Aina Le'a, it remains unclear as to why a new applicant and a new project described in the DEIS can purport to benefit from the previous EISPN. Further, it appears that the DEIS does involve proposed work on lands which are owned by Bridge Aina Le' a and, to that extent, Bridge Aina Le' a will be required to officially request

approval of the agency for the proposed action and thus is an "Applicant" within the meaning of HAR § 11-100-2.

Response: HAR § 11-100-2 of the Department of Health's Environmental Impact Statement Rules defines an "Applicant" as: … "any person who, pursuant to statute, ordinance, or rule, officially request approval form and agency for a proposed action." Solely DW ʻĀina Leʻa Development, LLC (DW) or its agents will be requesting those approvals necessary for the proposed development, not the prior owner, Bridge ʻĀina Leʻa, and, therefore, DW is appropriately referred to as the Applicant for the Project.

Comment: 1.5 Landowner

The DEIS represents that DW 'Aina Le'a, LLC, and Relco Corp. (DW) are owners of 1,092 acres of land in the State Urban and Agricultural Districts. However, a review of Real Property Tax Office records indicates that the only parcel within the project area on which DW 'Aina Le'a has a recorded ownership interest is TMK (3) 6-8-001:036. This parcel appears to be owned by DW 'Aina Le'a and more than three hundred other individuals, most of whom have addresses in Singapore. The balance of the TMK parcels appear to be owned by Bridge Aina Le'a. Thus, it is questionable whether the DEIS accurately reflects the current status of land ownership in the Project area. The DEIS should be corrected and appropriate deeds or other instruments attached as exhibits to the DEIS to demonstrate the actual ownership of the subject parcels. Further, the DEIS should contain an explanation of the interests that the three hundred other individuals with addresses in Singapore may have relative to the subject property. It is important to disclose what rights these individuals have in the land, what consent requirements are required from these individuals, if any, and what is the nature of these individual ownership interests in the subject property. A copy of a sample agreement between D W 'Aina Le'a and the Singapore-based owners should be attached as an exhibit to the DEIS/FEIS. It appears that DW 'Aina Le'a's funding strategy is founded on selling undivided interests in the parcel to individual investors from Singapore. Attached hereto as Exhibit A is a copy of information available on the internet which appears to describe this investment scheme.

The presence of the 300 individuals on title to the property and this investment scheme are relevant issues in assessing the Applicant's ability to perform the conditions in existing land use permits, to perform the actual development of the project as proposed in the DEIS, and to create the public benefits which would offset adverse environmental effects of the project. If the project funding is actually dependent upon attracting individual investors to purchase undivided interests in the land under the affordable housing project, there is a substantial question as to whether this is a financially viable approach to developing a project of this magnitude. If the landowners/developer is unable to obtain conventional financing for the project, and has to resort to this type of highly unconventional financing, this might cast doubt on the Applicant's ability to develop the project as proposed.

The assessment of potential impacts and benefits depends on the developer's ability to complete development of the project, including implementation of mitigation measures. If

the Applicant's ability to perform is in question, then this is an important consideration for a permitting agency, which could require development of community benefit and other environmental impact mitigation measures before the developer can proceed with those aspects of the project which will cause adverse impacts. If the developer goes forward with components of the project which will cause substantial impacts on the environment, but then does not complete the project, the impacts of the initial components of the project will not be mitigated and will therefore have greater impact on the environment and the community.

It also appears from the Bridge Capital LLC website that the entire 3,000 acre "Aina lea Property" is for sale. The website, http://www.bccnmi.com/property-listings-hawaii.html. states: The Aina Le 'a property, is a fully entitled area with approximately 3000 acres of land boasting panoramic views of western resort coastline of the Big Island ... " See Exhibit B.

The DEIS should contain a complete disclosures of 1) land ownership in the project area, 2) the ability of the developer to complete the development in a timely manner, and 3) the landowner's intentions relative to development and/or sale of the property.

Response: To answer your questions regarding the ownership of the lands and other investment interests in the Property and, specifically, your numbered questions on the property ownership, ability to develop the project in a timely manner, and the developer's intentions relative to the development and/or sale of the property, DW ʻĀina Leʻa Development, LLC and Relco Corp. (DWA) are owners of the approximately 1,092-acre property comprising primarily the Urban designated lands through an amended purchase and sale agreement (Agreement) in which Bridge assigned the rights, title and interest in the property to DWA through an installment sale; that is, installment payments on an established schedule. A redacted copy of this purchase and sale agreement is contained in Appendix A of the EIS. With regard to the investment interests in Parcel 36 of the Property, each of the investors who acquired an undivided interest in this parcel do so under documents which result in their being entitled to a return on their investment within a 30-month period. The investors enter into a joint development agreement with DW ʻĀina Leʻa Development, LLC, Hill Redwood Development Ltd., and the contractor, TrueStyle Pacific Builders, LLC, under which the investors commit their undivided interest in the land to development of buildings for affordable housing units, and the other parties commit to complete construction of the infrastructure and buildings. The investor is not entitled to possession of the land or buildings. The investor's return is in the form of money for rent and return on investment in 30 months. As the development progresses, the investor's interests will be transferred to a land trust and the investors will be the beneficiaries of the land trust which will hold the title transferred to it by the investors. The sales of affordable housing units will be from the land trust. To help clarify this point, an expanded description of the ownership interests in the property will be included in Section 1.5 of the Final EIS.

In terms of being able to develop the project in a timely manner, the Applicant has demonstrated its intent and ability to proceed with the initial phase of development in a timely manner, and has every expectation to continue subsequent phases of development

according to the schedule presented in the EIS. Regarding the development or sale of the Property, the Applicant's intent is to develop or affect the development of the full project according to the Conceptual Master Plan presented in the EIS. Portions of the residential development areas are planned to be subdivided and sold to other individuals or developers for development according to development guidelines established by the developer. Additionally, portions of the commercial areas may be developed and sold to individual buyers.

Comment: 2.1.2 Previous Master Plans for 3,000 Acres Known as The Villages of 'Aina Le'a

This section again raises a question of why the DEIS covers only approximately 1,000 acres when the totality of the project is 3,000 acres. The Association questions whether the DEIS should cover the overall Master Plan for Villages at Aina Le 'a and not simply a smaller component thereof.

Response: As noted above, the proposed Project, as described in the EIS, is the full development. While the potential development of the remaining portion of the 3,000 acres has been taken into account in assessing the cumulative development of the proposed Project with other potential developments in the area, the Applicant has no say as to the schedule or plans for the development of the remaining 3,000 acres that make up the balance of the Bridge lands. If and when Bridge proceeds with development of its lands, it will need to address the infrastructure requirements for its planned development at that time, as well as any additionals regulatory requirments, including compliance with Chapter 343, HRS.

Comment: 2.3.4 Residential Golf Community

It appears from the DEIS that the developer is proposing only those uses which are consistent with the standards contained in the County of Hawaii Zoning Code for single family residential and multi-family residential lots. Insofar as timeshare units are not a permitted use in the single or multi-family districts it appears that the DEIS does not contemplate and does not assess the potential impacts of any timeshare or fractional interval ownership use of the project.

Response : The listing of permitted uses found in Section 2.3.6, Table 5 is included to show the range of uses that would be permitted in the Village Commercial district. Timeshare units are not planned as part of the proposed project.

Comment: 2.3.6 Commercial Village and Mixed-Use Center

The DEIS states that there is a 36-acre commercial village comprised of 340,000 sq. ft. of gross floor area planned. It states that the commercial center "would be set back approximately 500 feet from the highway."

In the Land Use Commission Decision and Order and other sections of the DEIS, there are references to a required setback from the highway which averages 1,200 feet. The

proposed location of the commercial area within 500 feet of the highway seems inconsistent with the 1,200- foot setback and may cause a significant adverse visual impact from the highway and from the Mauna Lani Resort. The location of the commercial area approximately 500 feet from the highway seems inappropriate and should be reassessed.

The Association had understood that the 1,200-foot buffer zone along the highway would be a conservation area, left essentially in its natural condition, and perhaps protected by a conservation easement under HRS chapter 198 or some other form of formal, recorded protection. The natural lava and landscape along the side of the road is characteristic of this area and has previously been preserved in the context of existing major resorts.

If the commercial development is located in close proximity to the highway, it will change the visual character of the area, which will be an adverse environmental effect. The 1,200-foot setback was a mitigation measure intended to limit the adverse environmental effect. Thus it appears that the project proposed in the DEIS is actually a retreat from the mitigation measures approved by the Land Use Commission and identified in the General Plan and South Kohala Regional Plan.

Response: The Conceptual Master Plan, shown as Figure 3 in Section 1.3 of the Draft EIS, is reflective of the Applicant's current plans for development, which has changed from those plans presented by Nansay during the time of its initial State Land Use boundary Amendment Petition. The visual impact of such uses are addressed within Section 4.9 of the Draft EIS. The proposed commercial uses indicated on the Conceptual Master Plan, as you point out in your letter, would be within the 1,200-foot buffer area described in Condition 3 of the initial State Land Use Decision and Order (Docket No A87-617) and therefore, would require an amendment to Condition 3 of the LUC Decision and Order by the State Land Use Commission to be developed as shown. Condition 3 states, in part:

> "The buffer area shall be comprised of approximately two hundred twenty-five (225) acres and shall extend inland from the Queen Kaahumanu Highway right—of-way to a depth of approximately one thousand two hundred (1,200) feet. The depth of the buffer area may vary and the actual boundary lines of the buffer area may meander to a lesser or greater depth to accommodate the Project's development plan and preservation of natural open space and scenic views. Exceptions shall be made for infrastructure improvements or corridors that may be necessary to service the developed portions of the Property. The approximate boundaries of the natural open space buffer area are reflected in Petitioner's Exhibit LL, which is attached hereto and incorporated herein as Exhibit B."

As noted in Condition 3, some variation to the boundary of the Buffer Area had been envisioned to accommodate the Project's development plan and preserve the open space and scenic views, and exceptions would be made for infrastructure improvements or corridors that may be necessary to serve the development. The notion of certain uses extending into the

1,200-foot buffer area is also reflected in the County Zoning Ordinance (Ordinance No. 96-153) affecting the property. Condition D of Ordinance No. 96-153 states:

> "The applicant shall obtain plan approval from the Planning Director for all uses within 1,200 feet of Queen Kaahumanu Highway right of way."

While the above condition allows for the depth of the buffer area to vary to accommodate the Project's development plan and would allow for exceptions for infrastructure improvements or corridors, any development within the buffer area that substantially deviates from that presented in the initial Decision and Order would require prior approval of the development plan and, depending on the nature of the improvements, possible amendment to Condition 3 of the LUC Decision and Order by the State Land Use Commission. Also, as noted above, any improvements within the Buffer Area would also require Plan Approval by the Planning Director. The Applicant is aware that the development of the proposed commercial use within the Buffer area, as shown in the Conceptual Master Plan, would required a petition to amend Condition 3 of the LUC Decision and Order. Alternately, the Applicant may decide to restrict the commercial development in this area so as to be outside the 1,200 foot buffer area. In either case, any use in this area would adhere to State Land Use requirements for the area.

Comment: 2.3.8 Project Access, Circulation and Roads
The Association strongly supports the developer's proposal to construct a fully channelized and signalized intersection at the intersection of the main project access road, Queen Ka'ahumanu Highway, and Mauna Lani Drive. The Association believes that the signalized intersection at this location is appropriate to mitigate adverse traffic impacts of the project and to promote traffic safety. The Association believes that the fully channelized/signalized intersection at the main access road should be installed and operational before completion of Phase I of the development and before certificates of occupancy are issued for any residential structures in the project area.

Response: As noted in Section 4.6 of the DEIS, the channelized/signalized intersection improvements at the intersection with Queen Ka‘ahumanu Highway and Mauna Lani Drive are to be completed as part of the planned Phase I development.

Comment: 2.3.9.1 Domestic Water
The DEIS seems to state that initially potable water for the project will be provided pursuant to a "temporary" arrangement with the West Hawaii Water Company ("WHWC"). The DEIS evaluates potential adverse environmental effects of running a water line from WHWC's distribution system across Ag-zoned land to the project area.

The DEIS states that "Any permanent arrangement with WHWC to provide domestic water to the affordable housing units or various phases of the Project must be approved by the Public Utilities Commission."

The DEIS also states that in the long term, potable water supply requirements for the project will be met with the construction of four wells in the Ouli Well Field along with related transmission and storage improvements connecting the Ouli Well Field to the Lalamilo Water System. The DEIS does not evaluate potential environmental impacts of the water distribution system from the Ouli Well Field to the project area.

The Association is concerned about the adequacy of the DEIS to the extent it does not include evaluation of the infrastructure required to provide a permanent water supply to the project. In order to adequately evaluate the long-term impacts of the project as required by HRS ch. 343, the DEIS should evaluate the potential impacts resulting from development of a permanent water system to supply potable water to the greater project.

There appear to be some discrepancies in the estimates of average daily consumption of potable water. Section 2.3.9.1 states 1.3 MGD use of potable water and in other sections potable water demand is estimated to be .29 and .63 MGD. These inconsistent estimates have significant impacts both in terms of potable water demand and estimates of the volume of wastewater. These figures should be appropriately corrected in the Final EIS and the potential impacts assessed accordingly.

Response: The potential impacts of the water distribution system from the Ouli Well Field to the project area, to the degree that they are known, were evaluated as part of the Draft EIS. The area of the water utility transmission corridor from the proposed junction of the Project's water transmission lines with the existing South Kohala water system was surveyed for the potential presence of potentially significant historical, cultural, biological, or botanical resources and the findings of those studies are included with the Project analysis of potential Project-related environmental impacts. The Assessment of the Potential Impact on Water Resources, prepared by Tom Nance Water Resource Engineering (Appendix F), evaluated the potential impact of the projected water development to the existing ground water resources in the area and that found the projected water development would not have a significant impact existing to water resources in the area. The system improvements to the Ouli well system and improvements for connection to the existing South Kohala Water System for transmittal of the potable water to the Project site have yet to be designed. Further engineering will determine the nature of the improvements required in meeting the requirements of the Water Development Agreement with the County Department of Water Supply (Appendix C) and environmental assessments will be undertaken, as required, for the construction of such improvements. Based on a history of siting numerous components of the water system infrastructure without harm to the onsite environmental resources, we are confident that adjustments can be made as to the location and size of these facilities, as necessary, so as to avoid any potentially sensitive onsite resources that may be discovered.

Regarding your comment on the Project's potable water use, the figure on Page 3-19 referring to the Project's estimated potable water use as being between 0.29-0.63 mgd is an error. That will be changed in Section 3.5 of the Final EIS to the correct number of 1.322 mgd.

Comment: 2.3.9.2 Irrigation Water

The Association has a significant issue with potential for adverse impacts on Mauna Lani Resort's current use of non-potable irrigation water from on-site wells in its Resort area. The DEIS does not adequately address the issues associated with sufficiency of groundwater in this mauka/makai corridor to accommodate the project and the existing uses by other areas, including the Mauna Lani Resort. In the "Assessment of the Potential Impact on Water Resources of the Development of the Aina Lea Village Project in South Kohala Hawaii" prepared by Tom Nance Water Resource Engineering, Mr. Nance states:

> *The most significant long term issue in the development of the Aina Lea is the sufficiency of the groundwater flowrate in the project's mauka-makai corridor to accommodate its use and the planned use of groundwater by others. In the 3.6-mile coastal segment between Ohai Point and Makaiwa Bay, the total (natural) groundwater flowrate is probably on the order of 35 to 40 MGD (discounting ongoing pumpage by wells). The safely developable long term supply is probably on the order of 12 to 18 MGD.* ***Pumpage in excess of that would likely result in steady salinity increases, particularly in the irrigation wells closer to the shoreline in Mauna Lani Resort****.. .. Present pumpage of about 10 MG has produced* ***stable salinity levels in all the wells, although salinities in some of the MLR wells are near the maximum useable for golf course irrigation****. Possible future use of up to 23 MGD may not be sustainable by pumpage from wells in this mauka-makai corridor alone. This potential shortfall could be offset, to at lease some extent, by maximizing irrigation reuse of treated wastewater effluent from Waikoloa Village and Mauna Lani Resort. [Emphasis added.]*

The DEIS does not adequately address the potential adverse environmental effects of on-site irrigation water wells for the project. The suggestion of using reclaimed wastewater, although theoretically helpful, lacks sufficient specificity to demonstrate that the project could be developed in a manner that does not cause significant adverse harm to existing down-gradient users of irrigation water.

The Applicant's proposed means of mitigating the problem will be "the Applicant will work with regional and government stakeholders to develop a long-term resource conservation plan to address short-term and long-term efforts towards resource sustainability." DEIS at p. 3- 19. Unfortunately, even since receiving Mr. Nance's assessment of potential impacts of water resources in January 2009, in which Mr. Nance specifically identified "the most significant long-term issue" as being the effect on irrigation wells in the Mauna Lani Resort, the Applicant has not contacted the Association to discuss this issue.

The Association believes that the DEIS is not adequate in assessing the potential adverse effects of nutrient additions to groundwater, treatment and disposal of domestic wastewater, percolation of excess golf and landscape irrigation water into the groundwater under the project. Any nutrient input or golf course or landscape chemicals which find their way into the groundwater will move down gradient to the Mauna Lani Resort and to the nearshore coastal waters.

Response: The potential environmental effects of the Project's on-site irrigation water wells are fully addressed within Section 3.5 of the Draft EIS with specific attention to the potential impacts from nutrient additions to the ground water, the treatment and disposal of domestic wastewater, and the percolation of excess golf and landscape irrigation water. Regarding the issues associated with sufficiency of groundwater in this mauka/makai corridor to accommodate the Project and the existing uses by other areas, including the Mauna Lani Resort, the Assessment of the Potential Impact on Water Resources of the Development of the ʻĀina Leʻa Village Project in South Kohala, Hawaiʻi, dated July 2009 and prepared by Tom Nance Water Resource Engineering (Nance Assessment) calculates that the net decrease of ground water within the area of the mauka-makai corridor of the Project and the surrounding Bridge Property is estimated to be in the order of 0.6 to 0.7 mgd or approximately three percent of the corridor's estimated groundwater flow rate of approximately 21.1 mgd. The possible future uses that are referenced in the Nance Assessment and that you have pointed to in your comments include the possible future well development in the area of the Project's mauka-makai corridor, including on lands mauka, makai and to the north of the Project. In other words, while the potential impact of the Project's on-site use, combined with the projected uses for the surrounding Bridge lands, are not anticipated to have a significant impact on the available groundwater resources, the combined potential future uses in the region, including those planned uses and potential developments in the area north of the Project site, may not be sustainable without some form of offset, such as the reuse of treated wastewater effluent.

The discussion in Section 2.3.9.2 will be expanded in the Final EIS to clarify that the potential concern raised in the Nance Assessment is in regard to potential future well developments in the Region, beyond those planned for the projected irrigation uses of the Project and surrounding Bridge lands.

Comment: 2.4.1 Project District Development Standards and Project Guidelines.
Sec. 2.4.1 includes a summary list of sustainable planning and building design guidelines. This list is totally inadequate assessment of potential design criteria for an energy-efficient sustainable community. State-of-the art community layout, architectural design alternatives, energy generation and use, energy-efficient home design, transportation networks, and the like have evolved significantly and rapidly over the last few years. Proposing a major development in an environment which is hot, dry, and windy, the Applicant should be identifying specific measures to reduce energy consumption, reduce reliance on electrical energy generated by fossil fuels, and reliance on petroleum-fueled vehicles. The Applicant is missing a tremendous opportunity to develop its community in a state-of-the-art sustainable fashion and in a manner which could mitigate the significant adverse environmental impacts of developing a very large mixed-use project in this environment. The Association believes that the DEIS is inadequate in that it does not thoroughly, carefully, and specifically address what can be done in the planning and design, construction and operation of the project to promote sustainability.

Response: Regarding the identification of specific measures being initiated by the Applicant as part of the Project to promote sustainability, reduce energy consumption,

reduce reliance on electrical energy generated by fossil fuels, and reduce reliance on petroleum-fueled vehicles, the Applicant has incorporated specific energy and water conservation measures as part of the design and construction of the existing affordable town home units, including use of water conserving fixtures and toilets, use of Energy Star appliances, insulated walls and ceilings, and double-paned glass throughout. Additionally, the Applicant is planning the installation of photovoltaic arrays in the area of the town homes that are will serve as a significant alternative source of on-site electrical power generation, and is looking to implement an electric recharge program for electric vehicles within the Project. Also, the trails and bikeways that are planned as part of the Project will enhance the connectivity and provide residents with an alternative to vehicle use within the planned community. Lastly, the Applicant has committed to provide for curbside pick-up throughout the Project, which would include space for multiple bin pick-up for recycling purposes, thereby helping to reduce the potential impact to regional solid waste facilities and the energy required for solid waste disposal. An expanded description of the energy conservation and alternative power generation measures that are planned as part of the Project will be included within Section 4.11.5 of the Final EIS.

Comment: 2.5.1 Development Phasing and Timetable
It appears that Applicant is proposing a Phase I of The Villages would include the development of 385 affordable townhouse units which would "take place in a three-year period commencing February 2009 through 2012." The Association understood that Applicant is under a deadline imposed by the Land Use Commission to complete construction of the affordable units by November 2010. The DEIS states that development of Phases I and II will extend to and not beyond 2015 and that all phases of the development will be completed within a 10-year build-out schedule (see § 2.5.2, 1st par.). The Association understands that the DEIS is qualified by the timing of the action as set out in this statement.

Response: Regarding the timing for construction of the affordable housing units, the description and timing of the Phase 1 improvements found in Section 2.5.1 of the Draft EIS is intended to cover all of the Phase 1 improvements, including the 385 affordable housing units. As stated in Section 2.3.3 Affordable Housing Units, the Applicant planned to complete construction of the first increment of 32 affordable townhouse units by March of 2010 and the full 385 units by November 2010 in compliance with the amended Condition 1 of the State Land Use Commission (SLUC) Decision and Order. Delays in the completion of the EIS and the review of the need to market the affordable housing units to maximize the number of units that can be sold to Hawaii residents who are within the targeted median household income ranges, has caused the Applicant to request that the State Land Use Commission consider an amendment to Condition 1 to allow completion of the affordable housing units in 2011 and 2012. The motion for the amendment has been made and a tentative hearing date of November 4, 2010 has been set. The description of the Phase 1 improvements in Section 2.5.1 will be revised so that it reflects the pending situation. Regarding the timing of the phases of development, as stated in Section 2.5.1 of the Draft EIS, with the exception of Phase 1, the development of various uses in each phase will be flexible depending upon economic forces and market conditions.

Comment: 3.1 Climate
Again, the DEIS assessment and discussion of using the climatic features of the region to promote sustainability is totally inadequate. While one would not expect the project to have an impact on the climatic conditions, the climatic conditions will have an impact on the project. The DEIS should be carefully evaluating how to minimize energy consumption (including air conditioning) through intelligent design.

Response: The discussion of measures planned as part of the project to reduce energy demand including potential use of passive design features will be included in Section 4.11.5 of the Final EIS.

Comment: 3.3.4 Current Agricultural Activities on Property
The DEIS overestimates the potential positive impacts of the project on agricultural resources in the area. The facts that restaurants may purchase local agricultural products or that residents may have gardens are not significant positive effects and should not be offered as potential positive benefits of the project.

Response: In that there is no current agricultural use of the property and the potential demand for locally grown agricultural products, which includes turfs for the Project golf course and lawns, will only be increased as a result of potential uses within the Project, the statement in Section 3.3.4 is simply to indicate a potentially positive rather than a negative impact to agricultural use as a result of the Project development. It is not stated that this is a significant positive benefit to agricultural use.

Comment: 3.4.4 Earthquakes
The statement that while a significant earthquake occurred in the area in October 2006, "no damage was evident on the subject Property" is absurd as there was no development on the subject property in 2006.

Response: Section 3.4.4 will be expanded in the Final EIS to note that “no geologic damage from the 2006 earthquake was evident at the subject Property although there was no development present at the time.”

Comment: 3.4.5 Volcanic Activity
The property is clearly exposed to risk of lava flow inundation as indicated by (1) the close proximity of the 1859 Mauna Loa lava flow and (2) the fact that there are Mauna Loa flows north of the project.

Response: The discussion in Section 3.4.5 is intended to provide an indication of relative risk from volcanic activity in the Project area, as opposed to other areas of the Island. Section 3.4.5 will be expanded in the Final EIS to note the location of the Mauna Loa flows south of the Project.

Comment: 3.4.6 Wildland Fires
The Applicant should be required to develop a wildfire plan and emergency preparations plan. This should be required before completion of Phase I of the project.

Response: The Applicant is committed to prepare and implement an emergency preparedness and response plan and a plan for wildfire protection within Phase I of the Project.

Comment: Flooding and Tsunami
The Auwaiakeakua Gulch is subject to flooding which can result in damage to the property and/or cause runoff entering the Mauna Lani Resort property in the vicinity of Puako and entering the near-shore waters. There may be significant siltation impacts from flooding in the Auwiakeakua Gulch and other gulches that run through the subject property.

Response: With regard to protection from the potential flooding from the drainage ways that run along or through the Project site, the County requires that the developed areas be protected from the 100-year storm runoff entering the development from upstream watersheds. The 100-year flood mapping would be completed as part of the Final Design Reports that supplement the Conceptual Master Plan Drainage Report (Appendix E of the EIS) for the Project. Approval of the Final Design Reports is required prior to obtaining permits for clearing, grading, or grubbing, or in obtaining a National Pollutant Discharge Elimination System (NPDES) permit (issued by the State Department of Health).

Comment: 3.5 HYDROLOGY AND WATER RESOURCES
The concerns relative to groundwater resources have been discussed under a previous section of this comment letter. This is a significant issue affecting the Mauna Lani Resort and the development of the project itself. The DEIS does not adequately evaluate the impacts of the observation of project consultant, Tom Nance, that additional brackish water wells on the subject property may result in significant increase in the levels of salinity of groundwater which may prevent use of groundwater for irrigation purposes down gradient from the subject property.

Response: As noted above with regards to your comments on Section 2.3.9.2 pertaining to Irrigation Water, according the Nance Assessment, the projected irrigation use within the Project combined with the potential development of the surrounding Bridge lands would be approximately three percent of the groundwater flow within Projects mauka-makai. As such, it is not expected to have a significant impact on the groundwater resources, whereas the potential future uses in the region, including areas mauka, to the north and makai of the Project site, if developed, may not be sustainable without some form of offsets such as use of treated wastewater effluent and implementation of water conservation measures. Also, as noted above, the discussion in Section 2.3.9.2 will be expanded to clarify that the potential concerns of potential future well developments in the Region, beyond those for the projected irrigation uses for the Project and surrounding Bridge lands.

Comment: 3.6 BOTANICAL RESOURCES
The DEIS is not entirely clear on this issues, but it appears that the red 'ilima (Abutilon menziesii), an endangered species, was found in the 1991 survey which recommended protection and preservation of this species in its habitat. In surveys conducted in 2000 and 2010, no evidence of the red 'ilima was found in the area where it had initially been identified. This information suggests that the owners/developers of the project area have, through inactivity, allowed a colony of endangered species to die out. This history of performance should be taken into consideration when the Applicant is proposing mitigation measures or making representations as to what it intends to do to avoid environmental impacts.

Response: As noted in the Section 3.6, the botanical consultant, Dr. Funk, after an extensive search in 2000, found that the red ‘ilima had probably succumbed to the hot dry conditions caused by three years of drought. It should be noted that the year 2000 was well before any development had occurred on the Property and there has been no development activity in the area where the plants were originally found. It is clear that the disappearance of this species was the result of natural conditions rather than any development-related impacts. Additionally, the Applicant has committed to conduct a further survey of the area following a period of extensive rainfall to determine if a seed bank or seedlings of the species are still present and, if found, to develop preservation protocols for its preservation in conjunction with the Department of Land and Natural Resources (DLNR) and the U.S. Fish and Wildlife Service.

Comment: 4.1 Historical Perspective of Region and Property
The DEIS is in error in stating that Parker Ranch sold 3,000 acres to Nansay Hawaii, Inc. in 1960. The Association understands that Parker Ranch sold the property to Signal Puako Corporation and that Nansay purchased the property from Signal Puako in the late 1980s.

Response: Your clarification regarding the ownership history of the property is appreciated and will be corrected in Section 4.1 of the Final EIS.

Comment: 4.6 Roads and Traffic
Again, the Association supports the Applicant's commitment to develop the intersection of the main project road, Queen Ka'ahumanu Highway, and Mauna Lani Drive as a fully channelized and signalized intersection. The DEIS assumes this to be the condition of the highways for its post-project assessment in the TIAR.

Response: You are correct that the assessment within the Traffic Impact Analysis Report (TIAR) of future traffic conditions with the Project assumes implementation of the planned channelization and signalization of the intersection at Queen Ka‘ahumanu Highway and Mauna Lani Drive as a portion of the planned traffic-related mitigation measures that would be in place as part of the Phase I development.

Comment: 4.9 Visual and Scenic Resources
The Association is concerned about the visual impact of the project, particularly with the visual impact of the commercial area located within 500' of Queen Ka'ahumanu Highway. The Association is unclear as to why the simulations on Figure 15 are blurred in the copy of the DEIS received by the Association. If this is a technical or printing issue, hopefully it can be corrected. Even in a moving car on Queen Ka'ahumanu Highway a person would have a sharply focused view of the commercial buildings 500' mauka of the road.

Response: The slightly blurred quality of the buildings is a function of methodology used in preparing the computer-generated simulation of structures when viewed from various vantage points, however, these illustrations are intended to indicate the general location, size, and scale of the Project elements when viewed from points along Queen Ka‘ahumanu Highway.

Comment: 4.10 Socio-Economic Environment
The DEIS proposes that, when built out, the project will add 5,780 residents to the South Kohala district. This would represent a 44% increase over the population of South Kohala since 2000. This is a very significant population increase in this community. The DEIS states that the increased population will have most significant impacts on Waikoloa Village. The Association questions this assumption is very concerned that the DEIS does not appear to assess potential impacts of the increased population on coastal and recreational areas and amenities along the Kohala Coast, including public access facilities in the Mauna Lani Resort.

The Association submits that the DEIS does not adequately assess the environmental, cultural, and social impact arising out of the significantly increased population resulting from development of this project. The residents of the project will go to the coast for recreation, exercise, and gathering. The residents of the project will walk the trails, go to the beaches, fish, dive, and surf in the nearshore waters and otherwise use the coastal resources of the region as primary amenities of living in this area. The increased population will have significant adverse environmental effects on existing recreational, historical, and other public facilities in the area, including the facilities located in the Mauna Lani Resort and owned and operated by the Association. The DEIS wholly fails to evaluate the impacts which residents of the project will have on coastal resources and wholly fails to identify any appropriate mitigation measures.

Response: As noted in the Draft EIS, the Applicant recognizes that there are indirect impacts to the coastal recreational and natural resources in the area. The nature of these indirect impacts to various coastal areas from the potential residents in any new development in the region, other than directed impacts from coastal developments, would be difficult to assess with any degree of accuracy. These are part of the general impacts of a growing population in the area, of which the proposed project would be a part. The potential impacts to the coastal resources from the areas growing population and the provision for facilities in areas of coastal access, not only at Puako but throughout the region, are part of a broader set of coastal management issues that are best addressed in a

comprehensive fashion by the State and County. Section 4.12.1 of the Final EIS contains an expanded discussion of this issue. The Applicant is committed to participating with the State, County, community groups and other stakeholders in the area to address these concerns and to further enhance the community outreach and marine resource protection efforts in the area.

Comment: Section 4.10.2 *states that the residential component of Mauna Lani Resort consists primarily of timeshares and vacation rental units (p. 4-19). This is an incorrect statement. There are currently no timeshare units in the Mauna Lani Resort. The only parcels in Mauna Lani Resort which may be used for timeshare purposes are those identified for resort use. These are Mauna Lani Bay Hotel, the Orchid at Mauna Lani, and a portion of Lot "M." Mauna Lani Resort consists primarily of residential units which are not timeshares or vacation rentals. The Resort would expect that had the Applicant actually met with and interviewed nearby property owners, it would be aware that the Mauna Lani Resort does not consist primarily of timeshares and vacation rental units.*

Response: The misstatement within Section 4.10.2 regarding the inclusion of timeshares at Mauna Lani Resort will be corrected within the Final EIS.

Comment: Section 4.10.4 *discusses the potential positive impacts on employment resulting from employment from the project. While there may be increases in construction employment during build-out of the project, the Applicant's ability to build the project depends on the availability of financing. If there is no financing, there is no construction and no benefit from employment. For example, the July 1, 2010, West Hawaii Today had a news article about contractors and subcontractors at DW 'Aina Le'a not being paid by the Applicant. One subcontractor was quoted as saying, "We put all our savings and everything, thinking this is a great project." The Association believes that the DEIS should contain information which demonstrates that the Applicant will have financial wherewithal to construct the project and to provide the purported benefit of construction employment.*

Response: The statement within Section 4.10.4 regarding the potential benefits resulting from the employment generated from the development of the Project assumes that the Project will be developed as planned and the employment benefits would be commensurate with the scale of development. As with all potential benefits that would be derived from development of the Project, should the project not be built these associated benefits would not be realized.

Comment: Section 4.12.1 *with respect to "Recreation," totally ignores use of public access amenities of the Mauna Lani Resort by residents of the project. There are no mitigation measures discussed or proposed. Clearly, a significant potential effect of the project is the use of coastal areas by residents of the project. These impacts have to be addressed specifically and in detail.*

Response: The potential impacts from development of this Project to the coastal resources, including the public access resources in the region, is address within Section 7.2 of the EIS. As noted above, an expanded discussion on this issue will be included within Section 4.12.1 of the Final EIS.

Comment: 4.11.2 Wastewater
The Association is concerned about potential impacts on the Mauna Lani Resort down slope of the project. The Resort proposes that the FEIS contain a discussion of the Applicant's specific proposal for disposal of liquid sludge from the wastewater treatment plant. The Association is concerned that the DEIS simply passes the issue to future governmental decision-making.

Response: Regarding the disposal of liquid sludge from the wastewater treatment plant, The dewatered sludge from the WWTP would be dried and either recycled with compost or shipped to an appropriate disposal facility in a manner meeting Department of Environmental Management and State Department of Health regulations and requirements. Because of the technology of the membrane bioreactor system that is planned for the Project's WWTP, the dewatered sludge produced by the system is projected to be minimal. An expanded discussion on the disposal of the liquid sludge from the WWTP will be expanded within Section 4.11.2 of the Final EIS.

Comment: 4.11.3 Solid Waste
The DEIS proposes that solid waste will simply be trucked to Pu'uanahulu Landfill or taken by individual residents to the Puako solid waste transfer station. The Association believes that the DEIS should contain a serious discussion of potential recycling and waste stream reduction and should evaluate potential mitigation measures both on-site and off-site dealing with the stream of solid waste.

Response: In regards to promoting the recycling of solid waste, the Applicant has committed to provide for curbside pick-up throughout the Project, which would include space for multiple bin pick-up for recycling purposes. A statement to this effect will be included in Section 4.11.3 of the Final EIS. Please note that the Applicant will also be preparing a Solid Waste Management Plan according the Department of Environmental Management's (DEM) Solid Waste Management Plan Guidelines and will submit it for DEM approval. A further analysis of alternatives to reduce the amount of project generated solid waste would be contained in the Solid Waste Management Plan, which would be prepared at a later stage in the planning process when there is more definition to the densities and types of uses planned throughout the project.

Comment: 4.11.5 Electrical and Communications Systems
The DEIS contains no meaningful discussion of developing alternative energy generation facilities on or near the project site. Given the climate conditions at the location of the project, utility-scale solar electric generation facilities would be feasible at or near the project and could substantially reduce the project's impact on existing electrical systems

and on the use of electrical power generated through burning fossil fuels. A DEIS in 2010 should thoroughly assess potential use of alternative energy to reduce environmental impacts.

Response: A more detailed description of the Project's projected energy demand and proposed mitigation measure will be added to the discussion on energy use in Section 4.11.5 of the Final EIS. As noted previously within the discussion of sustainability related measures being implemented as part of the Project, the Applicant has incorporated specific energy conservation as part of the design and construction of the existing affordable town home units, including use of Energy Star appliances and insulated walls and ceilings, and double-paned glass throughout. Additionally, the Applicant is planning the installation of photovoltaic arrays in the area of the town homes that are will serve as a significant alternative source of on-site electrical power generation, and is looking to implement an electric recharge program for electric vehicles within the Project.

Comment: 6.3 CHAPTER 205A, HRS, COASTAL ZONE MANAGEMENT (CZM) ACT

The Association submits that the DEIS fails to adequately assess potential impacts on Coastal areas resulting from a significant increase in population, from increase of groundwater, from potential input into groundwater, and other potential causes. The DEIS simply fails to assess the extent to which the proposed project is consistent with all of the objectives, policies, and guidelines of the CZM program.

Response: The Project's adherence with the Objectives and Policies of Chapter 205A, specifically with regards to the protection of coastal ecosystems and the promotion of water quality planning and management, is addressed in Section 6.3 of the EIS.

Comment: 6.5 COUNTY GENERAL PLAN

6.5.1 Land Use Pattern Allocation Guide (LUPAG)

The DEIS does not address the measures used to preserve the open space/conservation area along Queen Ka'ahumanu Highway. The assessment of General Plan's concerns for natural resources and shoreline on page 6-9 of the DEIS is inadequate. The measures which could be implemented to address sub-policy 2.2 relating to bicycle and pedestrian pathways are adequate.

Response: An expanded discussion of the Project-related measures to preserve open space area fronting the Highway will be included within Section 6.5.1 of the Final EIS.

Comment: 7.2 CUMULATIVE AND SECONDARY IMPACTS

The cumulative impacts section appears to be the only place where the potential impact of the project on recreational facilities and shoreline access is mentioned. Again, the DEIS is inadequate for its failure to assess the potential impacts on coastal recreational facilities and shoreline access caused by the subject property.

Response: As noted above in reference to your comments on Section 4.12.1, Socio-economic Environment, an expanded discussion on the potential impacts to coastal recreational resources will be included within Section 4.12.1 of the Final EIS.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

Water Resources Research Center
Environmental Center

UNIVERSITY of HAWAI'I®
MĀNOA

July 7, 2010
RE: 801

Mr. Robert Wessels
DW Aina Le'a Development, LLC
68-4747 Queen Ka'ahumanu Highway
Kamuela, HI 96743

Dear Mr. Wessels:

Draft Environmental Impact Statement
Village of Aina Le'a
South Kohala, Hawaii

DW Aina Le'a Development LLC proposes to build 1,047 multiple-family units, 790 single-family house sites and up to 500 affordable/workforce housing units on approximately 1,128 acres in Waikoloa, South Kona, Hawaii. The Villages of Aina Le'a also includes a commercial village, a golf course and golf lodge. The EISPN for the project was prepared for a residential-golf community on 3,000 acres that had previously received approvals for six golf courses and 3, 220 residential units. The scope of the project has been reduced with the purchase of 1,092 acres of the urban lands by the Applicant, DW Aina Le'a Development, LLC. Initially, 385 affordable/workforce housing units are being constructed onsite in compliance with a State Land Use Commission condition. The project will provide both active and passive parks, a botanical preserve and a 32-acre school site

This review was conducted with the assistance of Jene Michaud, Geology Department/UH Hilo; Tracy Wiegner, Marine Science/UH Hilo; and Sara Peck, Sea Grant College Program.

General Comment

We like the mixed commercial/residential concept with a walkable/bikeable village. Such a design minimizes a certain amount of driving. To further diminish driving and expand transportation options to those who cannot drive, the developer should negotiate with the county bus system to add a stop in the proposed development. We were disappointed however, that the draft environmental impact statement (DEIS) spent so little space describing what the proposed development would look like. How the project will be developed, what each of the multi-family and single family houses will be made of and how they will use energy and water will have a

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large impact on the local environment. On page 2-20, there is a reference to the promotion of LEED principles in developing the land. This would be beneficial for this proposed development. Does this mean that the developer intends to follow the LEED-Neighborhood Development (LEED-ND) draft standards? This would be one way to assure that the proposed project is trying to reduce the impact of the development on the local environment. An example of the type of consideration of how the makeup of a development can be discussed in a DEIS is the one prepared for Hoopili, a development in the western part of the Island of Oahu. This DEIS could be considerably enhanced by having a larger discussion of what the development will look like and how the individual structures could be constructed.

Change in Scope or Size of Project (pp. 1-1 – 1-4)

This section was somewhat confusing. Is the total proposed development on 1060 acres or is it on 1,128 acres? Who is Bridge Aina Le'a and is there the same or overlapping management of the two groups? If the plans have changed from the original 3000 acres master planned community that was in the EIS preparation notice are they now separate plans from separate groups or is this a way to segment the project to get some of it through the process while another part of the same projects await further permitting requirements? Segmentation of a project for the purpose of preparing environmental documents is discouraged under the EIS rules. Section 200-7 (A) of the Hawaii Administrative Rules (HAR) states that "component actions that are phases or increment of a larger total undertaken" shall be treated as a single action. Thus, a project cannot be split into two separate actions so that one part can gain acceptance while another part undergoes further scrutiny for various reasons. If the project is segmented, the lead agency must find that the DEIS for the proposed project is inadequate and should be reissued once all parts of the same project are ready to be examined.

In addition, the EIS rules do not allow parts of the project to proceed until a final EIS is approved by the approving authority. Under section 11-200-23 (D) HAR, "Acceptance of the required EIS should be a condition precedent to approval of the request and commencement of the proposed action. Yet, it is stated on page vii in the executive summary and again on page 2-9 that 385 works force houses, part of this project are being constructed at present. How is this not ignoring the Rules?

Affordable Housing Units (pp. 2-9- 2-10)

This section states that there will be 385 affordable units built as part of this project. Yet, earlier, on page 1-4 there was mention of up to 500 units of affordable/workforce housing proposed for this development. Will there be another 115 affordable/workforce houses proposed for construction later in this proposed project or will the 385 be all that will be built?

Commercial Villages and Mixed-Use Center (pp.2-11 – 2-16)

Why have a separate commercial village and a mixed-use center. The idea of mixed use is to integrate residential, retail and commercial uses so that there is a more compact development that allows people to live were they shop, recreate and in some cases work. This will help cut down on the use of vehicles for getting around.

This section also offers lists of allowable uses within residential and commercial zoned districts, but doesn't say anything about what the developers plan to build in this area. It would be far more helpful if the DEIS discussed what is being proposed for the area rather than what is allowed.

Project Open Space, Parks, and Historic/Cultural Sites (p. 2-16)

Who will manage the parks mentioned in this section?

Project District Development Standards and Project Guidelines (pp. 2-18 – 2-20)

It is stated in this section, on page 2-20 that the use of renewable energy devices will be encouraged. We are wondering who will be encouraged, the developer? This document is being prepared by the developer (or his/her agent) thus the developer is in fact encouraging him/her self to use renewable energy devices. Why doesn't the developer just say that they will use energy saving devices in their development?

Natural Hazards (pp. 3-9 – 3-14)

In the section on natural hazards, some needed information is lacking, some hazards are not acknowledged, and some mitigation measures have been missed. In section 3.4.4 there is a sentence that reads "No damage [from the 2006 earthquake] was evident on the subject property." What should be added is no damage was expected given the lack of development.

On page 3-14 there is a paragraph headed "mitigation of hazards from earthquakes, volcanoes, and hurricanes." This paragraph addresses hurricane mitigation only. Proposed mitigation measures for volcanic and earthquake hazards are missing and should be addressed.

- Earthquake mitigation typically is in the form of building codes. Insurance is not available.

- Realistically, mitigation of hazards from lava flows is not possible in the case of protecting structures and infrastructure. People are protected by evacuation, and the proposed new road connecting the proposed village to Waikoloa Village will

facilitate evacuation. Because the project is sited in hazard zone 3, there is a small but definite risk of a lava flow.

- It is worth mentioning that Hawaii County has the most outdated structural building codes in the nation (UBC 1991) and thus do not provide the state-of-the-art protection from earthquakes and hurricanes.

- The developers state that they are working with the Hawaii Island Wildfire Management Organization (HIWMO), but they may not have the latest information from that group. The developer should document concurrence from the HIWMO that the development has ample green zones surrounding the entire development. They can redesign the golf course, for example, to locate fairways between the homes and the undeveloped, fire prone adjacent lands. This has been done with some of the park land, but more greenways should be designed. Waikoloa Village, as it turned out, according to HIWMO, should have done that and is now threatened by wildfire.

Finally, the DEIS should acknowledge that community shelters are an important part of mitigation of a variety of natural hazards. There is an acute shortage of earthquake/hurricane-resistant shelters on Hawaii Island. A potential mitigation measure would be for the proposed project to supply a structure, for example a community building, that could be used to shelter project residents during emergencies.

Hydrology and Water Resources (pp. 3-14 – 3-19)

The DEIS repeatedly points out that groundwater flow in this area is lower compared to surrounding areas in the region, its groundwater wells are presently saline, and development beyond what is proposed for the current project may not be sustainable from a groundwater resource standpoint. However, the DEIA does not address whether this and future developments in this area are sustainable with predicted changes in rainfall from global climate change. Additionally, the DEIS does not address the groundwater extraction's impact on downstream anchialine ponds, a critical and unique coastal habitat in Hawai'i.

Another concern is that the addition of nutrients from the development to groundwater is underestimated in the Nance Assessment (Appendix D). Certain assumptions in the calculations used to estimate nutrient additions to groundwater are not well documented ('trickling filter' nutrient removal rates) and some are not accurate (change in runoff after development), and values used in the calculations may underestimate the true impact of the development (the amount of fertilizer nutrients that percolate below the plants' rooting zone). We discuss these concerns greater detail below:

Flow rates: It is estimated that the groundwater flow rate under the projected 2.9-mile project is 20 MGD. These flow rates are 10% less than the overall average between Kawaihae Harbor and 'Anaeho'omalu Bay. Additionally, the salinities of waters in the onsite groundwater wells at Aina Le'a are higher than down gradient wells to the north and south of the project site, even though these later wells are closer to the shoreline. This fact suggests that there is salt water intrusion into the wells on the proposed site and that groundwater withdraw in this region is greater than its recharge.

The Nance Assessment estimates that a net of 2.5 to 3.3 MGD of groundwater would be withdrawn from the project site for potable water and irrigation. Accordingly, the groundwater flow rate through the project site will decrease to 16.7 to 17.5 MGD; this is a 12.5 to 16.5% decrease in groundwater flow rates. The report only presents the decrease in groundwater flow rates for the region (from Kawaihae to 'Anaeho'omalu) which is 4% (3.3 MGD of 75 MGD). Additionally, changes in rainfall in south Kohala due to global climate change and the future recharge of the groundwater in the region were not discussed in the EIS. Climate models for Hawai'i predict that rainfall in south Kohala will decrease 10 to 20% in the future (Timm and Diaz 2009). This fact needs to be discussed in the EIS with regards to whether groundwater extraction for this proposed project and future ones are sustainable under future climate conditions.

The biggest concern for this development with regards to its water resources is sustainability. This development and future developments in this region may be unsustainable with regards to water resources. The Nance Assessment suggests that the shortfall in groundwater flow from the development's extraction could be offset to some extent by maximizing the use of treated wastewater for landscape and golf course irrigation. However, this offset would be trivial compared to groundwater extraction and does not take predicted climate change into account.

Additionally, extraction of groundwater will decrease the amount and flow rate of groundwater to the ocean and consequently to anchialine ponds. Anchialine ponds are a unique coastal habitat, home to candidates for the endangered species list (*Metabetaeus lohena* and *Megalagrion xanthomela*) and species at risk (*Halocaridina ruba*), where groundwater and ocean water enter through lava tubes. Hawai'i is the only state in the United States with natural anchialine ponds and the greatest number occur along the Kona coast. These ponds have the highest level of biodiversity compared to any other in the Indo-Pacific region. Because of the importance of anchialine ponds as a coastal habitat to endemic and species at risk, the impact of the groundwater extraction and fertilizer practices at the proposed development on anchialine ponds' water levels, salinities, temperatures, oxygen concentrations, pH, and nutrients (just to name a few parameters) need to be assessed and addressed in the EIS.

Nutrient additions to ground water: The Nance Assessment estimates that nitrogen concentration in the groundwater will increase 0.2 to 2.2% at full build out of the proposed project and phosphorus will decrease 3.9 to 4.4%. Based on a couple of the assumptions used in the Nance Assessment and discrepancies in the document's statements, these values are probably greatly underestimated. Following, are two conflicting statements from the Assessment: 1) "For the original dissolved constituents (in the fertilizer), it is assumed that 50% of the nitrogen and phosphorus are taken up by plants and the remainder passes below the root zone" and 2) "Of these applications (fertilizer), 10% of the nitrogen and two percent of the phosphorus would be carried below the plant root zone." For the calculations in the Nance Assessment, the later of the two values was used, which is a 40% lower value than the original statement. Published peer-reviewed references should be used to determine the appropriate amount of fertilizer lost to groundwater.

A second statement in the Nance Assessment that may result in an underestimate of the proposed project's nutrient addition to groundwater is: "Nutrient removal through the vadose zone is similar to a 'trickling filter' (as documented in TNWRE, 2002). It is assumed that that natural removal rates are 85% for nitrogen and 98% for phosphorus." Based on the information provided, it cannot be evaluated whether these stated removal rates for nutrients in the vadose zone are reasonable. It suspected that at least for nitrate (nitrogen) these values are much lower as nitrate is known to be highly mobile in soils due to anion exclusion (http://www.ars.usda.gov/pandp//docs.htm?docid=18760&dropcache=true&mode=preview).

A third statement in the Nance Assessment that may result in an underestimate in the proposed project's nutrient addition to groundwater is: "As a first order approximation, it is assumed that half of this (rainwater) percolates to groundwater and that this amount is essentially unchanged after development." It is well documented that impervious surfaces like streets, driveways, and sidewalks prevent stormwater from naturally percolating into the ground. Consequently, paving the ground's surface results in increased storm runoff. The values used in the Nance Assessment for runoff need to be higher and accordingly this will result in a greater amount of nitrogen and phosphorus entering the groundwater from stormwater runoff from the development.

It is Critical to over-design storm water retention facilities. Although this is a semi arid location, occasional 10-50 year storms will erode established gulches further, over-run the highway and ultimately carry terregonous materials and debris to the ocean. Existence of gulches today supports that notion. Hurricanes can also provide a similar scenario.

Finally, Table 7 on page 3-15 needs units for nitrate and orthophosphate concentrations. Numbers without units are meaningless. Bullet point two at the top of page 3-15 is really just the continuation of bullet point one.

Botanical Resources (p. 3-20)

The second paragraph under existing conditions on page 3-20 is somewhat confusing. Does the passage mean that some fern of the species *Ophioglossum polyphyllum* were misidentified as *Ophioglossum concinnum,* a rare endemic fern species or that the classification of the *Ophioglossum concinnum,* is wrong and the species is really correctly classified as *Ophioglossum polyphyllum* and not rare or endemic. It is not clear from the text.

Avifaunal and Mammals (pp. 3-22 – 3-23)

Most DEIS use the scientific as well as the common names of flora and fauna species found at the proposed project site. This avoids confusion for reviewers versed in the scientific nomenclature of plant and animal species, but allows the non-technical reviewer to have an idea of what is found at the proposed project site. The authors of the DEIS do so in some parts of this section but not others. We suggest the authors use both the common and scientific name at least when a species is first introduced to the reader to enhance clarity.

Cultural Resources (pp. 4-5 – 4-7)

The letter by Deborah Chang, referred to on the second paragraph on page 4-6 can be found in section 10 not 11 as stated in the DEIS.

Roads and Traffic (pp. 4-8 – 4-11)

Increased traffic is one of the major impacts of the project of the proposed development on the environment. It looks from your analysis, that most of the impacts will be bad. However, the list of mitigative measures is very short and there is very little said about how they will mitigate the worst traffic impacts. Maybe they cannot be mitigated short of getting rid of cars somehow. In the DIES mitigation can't be proposed without discussion on to the extent that the mitigation will actually work to lessen the impact.

In addition, the DEIS addresses mitigation of local traffic concerns but does not address regional traffic concerns, which are not insignificant given the size of the proposed development. Many of the residents of the proposed village will travel to Kailua-Kona for work and shopping, further worsening regional traffic congestion.

Air Quality (pp. 4-12 – 4-14)

Section 4.8 addresses vog hazards. What needs to be added is that vog concentrations have increased substantially since the opening of the new (2008) gas vent at the summit of Kilauea volcano. The exact increase in concentrations at the project site is unknown because, as

the DEIS notes, measurements have been discontinued. Moreover, the possibility of additional vog from a new eruption of Mauna Loa (now long overdue) should be acknowledged.

With respect to vog hazards, another piece of information that should be added is that even though concentrations are below air quality standards, there is a widespread recognition that vog can cause eye irritation, headaches, and respiratory irritation. In fact, for sensitive individuals, vog is a factor in their decision on whether to live in West Hawaii.

A statement that limiting the amount of grading to be performed at one time is made in the fourth paragraph on page 4-13. We were wondering what that limit is?

Visual and Scenic Resources (pp. 4-14 – 4-16)

In the visual simulations in Figure 15 on page 4-15, you can see a number of blank wall spaces. Are these caused by planned commercial development, by housing or by retail? Is there anything that can be done that would hide those blank walls from the road below? Couldn't they be painted to blend in with the background or have landscaping hide some of the walls?

Drainage (pp. 4-26 – 4-28)

It is true that the Universal Soil Loss Equation predicts that post-development erosion will be less than pre-development erosion. In the model, this reduction is due to shorter hill slopes (due to re-grading), the assumption that all erosion originates from raindrop impact, and a more favorable cover management factor. For example, a well-watered lawn experiences less erosion than the existing sparse bushes/grasses. However, the DEIS states that water-conserving landscaping will be used when feasible. Won't water-conserving landscaping be similar, in terms of erosion risk, to existing sparse bushes/grass? Also, smooth paving tends to create faster moving runoff and higher flood peaks, both of which increase erosion occurring due to the traction of surface runoff (an erosion mechanism that occurs in real life but is not included in the Universal Soil Loss Equation).

The erosion risk during the construction period is much higher than pre-development erosion risk. While standard mitigation measures will be used to minimize this risk, mitigation measures do not always perform as planned. For example the runoff can and often does go around or under sedimentation fences.

Recreation (pp. 4-30 – 4-31)

The DEIS states that impacts on regional recreation facilities would be minimal because of recreation opportunities within the village. This is untrue. You cannot add approximately 4,000 people to the neighborhood and expect that they will never visit the beach. The parking lot at the nearby Mauna Kea Beach Park already fills before 10:00 a.m.

Thank you for the opportunity to review this Draft EIS.

Sincerely,

Peter Rappa
Environmental Review Coordinator

References cited in this Review:
Timm, O. and H. F. Diaz. 2009. Synoptic-statistical approach to regional downscaling of IPCC 21st Century climate projections: seasonal rainfall over the Hawaiian Islands. J. Climate doi: 10.1175/2009JCLI2800.1

cc: OEQC
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September 30, 2010

Peter Rappa, Environmental Review Coordinator
University of Hawai‘i at Manoa
Environmental Center
2500 Dole Street, Krauss Annex 19
Honolulu, HI 96822

SUBJECT: THE VILLAGES OF ‘ĀINA LE‘A DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Rappa:

Thank you for your letter of July 7, 2010 (attached) in which you provide your comments to the Villages of ‘Āina Le‘a Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ‘Āina Le‘a Development, LLC, we are responding to your comments.

*Comment: **General Comment** We like the mixed commercial/residential concept with a walkable/bikeable village. Such a design minimizes a certain amount of driving. To further diminish driving and expand transportation options to those who cannot drive, the developer should negotiate with the county bus system to add a stop in the proposed development. We were disappointed, however, that the draft environmental impact statement (DEIS) spent so little space describing what the proposed development would look like. How the project will be developed, what each of the multi-family and single family houses will be made of and how they will use energy and water will have a large impact on the local environment. On page 2-20, there is a reference to the promotion of*
LEED principles in developing the land. This would be beneficial for this proposed development. Does this mean that the developer intends to follow the LEED-Neighborhood Development (LEED-ND) draft standards? This would be one way to assure that the proposed project is trying to reduce the impact of the development on the local environment. An example of the type of consideration of how the makeup of a development can be discussed in a DEIS is the one prepared for Hoopili, a development in the western part of the Island of Oahu. This DEIS could be considerably enhanced by having a larger discussion of what the development will look like and how the individual structures could be constructed.

Response: We appreciate your comments on the mixed-use concept with a "walkable/bikeable" village. The Applicant will be working with the County Mass Transit Agency to discuss adding bus stops within the Project, when justified by a sufficient number of residents. As to the look of the development, while there will be design guidelines to control the look and feel of the project in order to achieve a more cohesive whole and blending with the surrounding environment, the details of these design guides have not been prepared and it would be difficult to accurately project the look of the development at this time. While developer plans to follow the LEED principles, including the many of the principles of New Urbanism, Green Building and Smart Growth that guide the LEED-ND Standards, the developer will not be seeking LEED-ND Certification at this time.

Comment: ***Change in Scope or Size of Project (pp. 1-1 - 1-4).*** *This section was somewhat confusing. Is the total proposed development on 1,060 acres or is it on 1,128 acres? Who is Bridge Aina Le'a and is there the same or overlapping management of the two groups? If the plans have changed from the original 3,000 acres master planned community that was in the EIS preparation notice are they now separate plans from separate groups or is this a way to segment the project to get some of it through the process while another part of the same projects await further permitting requirements? Segmentation of a project for the purpose of preparing environmental documents is discouraged under the EIS rules. Section 200-7 (A) of the Hawaii Administrative Rules (HAR) states that "component actions that are phases or increment of a larger total undertaken" shall be treated as a single action. Thus, a project cannot be split into two separate actions so that one part can gain acceptance while another part undergoes further scrutiny for various reasons. If the project is segmented, the lead agency must find that the DEIS for the proposed project is inadequate and should be reissued once all parts of the same project are ready to be examined.*

In addition, the EIS rules do not allow parts of the project to proceed until a final ElS is approved by the approving authority. Under section 11-200-23 (D) HAR, "Acceptance of the required ElS should be a condition precedent to approval of the request and commencement of the proposed action. Yet, it is stated on page vii in the executive summary and again on page 29 that 385 works force houses, part of this project are being constructed at present. How is this not ignoring the Rules?

Response: To answer your questions on the scope and size of the project, since the time of the initial EIS Preparation Notice, the predominately Urban portion of the original 3,000-acre property, comprising 1,092 acres, was sold by Bridge ʻĀina Leʻa (Bridge) to DW ʻĀina Leʻa Development, LLC and Relco Corp. (DW). Through the Purchase and Sale Agreement with Bridge, DW retains to the ability to the develop portions of the Project on the adjoining Bridge property. Portions of the Project utilities, including the Project's water and electrical transmission systems and the wastewater treatement plant (WWTP), as well as a 10-acre active park and approximately 15 acres for segments of the Project golf course, are planned on the adjacent Bridge lands. This change in the scope and size of the Project since the inital

EISPN is fully described in Section 1.2 of the Draft EIS. The combined area of the Project, with these additional utility, golf, and park facilites is approximately 1,128 acres, as summarized in Table 1, Section 2.1.1 of the Draft EIS.

This change to the scope and size of the Project is not a "way to segment the project" as you question in your letter. DW's entire project is to develop the approximately 1,128-acre Project described in the Draft EIS. There will be no later phase by DW to develop the balance of the agriculturally zoned lands. As noted in Section 1.2 of the Draft EIS, the planned Project District zoning application would apply only to the Applicant's development of its Urban lands and related infrastructure and community facilities on the adjacent Agricultural lands and would be separate and apart from any future action or development of the adjacent Bridge lands. Further, as stated in Section 1.6 of the Draft EIS, the Draft EIS is not intended to support any permits or approvals that may be required for the potential development of agricultural lots, golf courses, and their related infrastructure on the remaining Bridge lands that make up the balance of the original 3,000 acres. The Project has not been segmented as the EIS covers the full scope of the development being proposed by the Applicant.

Regarding the construction of the townhomes, the planned request to rezone the State Land Use "Urban" portion of the Project to "Project District" is to facilitate development of the Project. However, that land is already zoned for urban use. The land on which the townhomes are being built is within the State Land Use "Urban" district and has the zoning required for multifamily units. The only additional requirements were for Plan approval and building permits, both of which were obtained. Their construction was initiated in order to meet the time constraints imposed by the conditions set by the State Land Use Commission approval. Construction of these buildings is not a trigger for Chapter 343 compliance, which is why construction these buildings can precede the completion of the EIS.

You also question whether the Project is compliant with certain EIS regulations, specifically Section 200-7 (1) of the Hawaii Administrative Rules (HAR), which states:

> "<u>Multiple or phased applicant or agency actions</u>. A group of actions proposed by an agency or an applicant shall be treated as a single action when:
> (1) The component actions are phases or increments of a larger total undertaking;"

And Section 11-200-23 (d), HAR, which states, in part:

> (d) For actions proposed by the applicants requiring approval from an agency, the applicant or accepting authority may request the office to make a recommendation regarding the acceptability or non-acceptability or the statement.
> … Acceptance of the required ElS should be a condition precedent to approval of the request and commencement of the proposed action."

In reference to compliance with Section 11-200-7 (1) HAR, the Project described in the Draft EIS is not part of a larger total undertaking and all components of the proposed Project are considered and addressed in the EIS, and is, therefore, compliant with this Section.

Regarding compliance with Section 11-200-23 (d), as stated in Section 1.6 of the DEIS, the Draft EIS has been prepared to support the Project District Zoning Application, requested amendments to conditions of Ordinance No. 96.153, and all subsequent permits and applications, including, but not limited to, a Special Permit Application for a wastewater treatment plant, plan approvals, grading, grubbing and infrastructural construction drawings. In compliance with Section 11-200-23 (d), acceptance of the EIS, when required for such approvals, will be a condition precedent to the approval of the request and commencement of the proposed action. Again, as noted above, the construction of the townhomes currently under construction required only administrative approvals which were not a "trigger" for HRS Chapter 343 compliance.

*Comment: **Affordable Housing Units** (pp. 2-9- 2-10). This section states that there will be 385 affordable units built as part of this project. Yet, earlier, on page 1-4 there was mention of up to 500 units of affordable/workforce housing proposed for this development. Will there be another 115 affordable/workforce houses proposed for construction later in this proposed project or will the 385 be all that will be built? Commercial Village and Mixed-Use Center (pp.2-11- 2-16). Why have a separate commercial village and a mixed-use center. The idea of mixed use is to integrate residential, retail and commercial uses so that there is a more compact development that allows people to live were they shop, recreate and in some cases work. This will help cut down on the use of vehicles for getting around. This section also offers lists of allowable uses within residential and commercial zoned districts, but doesn't say anything about what the developers plan to build in this area. It would be far more helpful if the DEIS discussed what is being proposed for the area rather than what is allowed. Project Open Space, Parks, and Historic/Cultural Sites (p. 2-16) Who will manage the parks mentioned in this section? Project District Development Standards and Project Guidelines (pp. 2-18 - 2-20) It is stated in this section, on page 2-20 that the use of renewable energy devices will be encouraged. We are wondering who will be encouraged, the developer? This document is being prepared by the developer (or his/her agent) thus the developer is in fact encouraging him/her self to use renewable energy devices. Why doesn't the developer just say that they will use energy saving devices in their development?*

***Natural Hazards** (pp. 3-9 - 3-14) In the section on natural hazards, some needed information is lacking, some hazards are not acknowledged, and some mitigation measures have been missed. In section 3.4.4 there is a sentence that reads "No damage [from the 2006 earthquake] was evident on the subject property." What should be added is no damage was expected given the lack of development.*
On page 3-14 there is a paragraph headed "mitigation of hazards from earthquakes, volcanoes, and hurricanes." This paragraph addresses hurricane mitigation only.

Proposed mitigation measures for volcanic and earthquake hazards are missing and should be addressed.

- *Earthquake mitigation typically is in the form of building codes. Insurance is not available.*
- *Realistically, mitigation of hazards from lava flows is not possible in the case of protecting structures and infrastructure. People are protected by evacuation, and the proposed new road connecting the proposed village to Waikoloa Village will facilitate evacuation. Because the project is sited in hazard zone 3, there is a small but definite risk of a lava flow.*
- *It is worth mentioning that Hawaii County has the most outdated structural building*

  codes in the nation (UBC 1991) and thus do not provide the state-of-the-art protection from earthquakes and hurricanes.
- *The developers state that they are working with the Hawaii Island Wildfire Management Organization (HIWMO), but they may not have the latest information from that group. The developer should document concurrence from the HIWMO that the development has ample green zones surrounding the entire development. They can redesign the golf course, for example, to locate fairways between the homes and the undeveloped, fire prone adjacent lands. This has been done with some of the parkland, but more greenways should be designed. Waikoloa Village, as it turned out, according to HIWMO, should have done that and is now threatened by wildfire.*

Finally, the DEIS should acknowledge that community shelters are an important part of mitigation of a variety of natural hazards. There is an acute shortage of earthquake/hurricane- resistant shelters on Hawaii Island. A potential mitigation measure would be for the proposed project to supply a structure, for example a community building that could be used to shelter project residents during emergencies.

Response: Regarding Affordable Housing Units, the reference to 500 affordable/workforce units in Section 1.2 is in reference to the approximate number of affordable housing units planned for the total project, whereas the reference to 385 affordable townhouse units in Section 2.3.3 is the number of affordable units that the Applicant is committed to complete construction of by November of 2010.

As to the separate Mixed Use and Commercial Village Areas, they are located in different areas because each would have a different focus and function within the Project. Whereas, the Commercial Village would serve a larger regional retail and service function and, therefore, would need a more direct connection and proximity to the highway, the Mixed-use Area would have more of a community focus with a differing mix of smaller and primarily service-oriented businesses that can be integrated with apartment housing and community amenities to serve as the “heart” of the community. The planned community, however, will include pathway and bikeway connections that will provide alternative bike and pedestrian connectivity throughout the community and lessen the community dependence on automobile use.

Regarding the list of potential uses provided (Section 2.6.5, Table 5) as opposed to specific proposals for the area, to the degree that is known at this time, the proposed uses are generally described in the preceding portions of Section 2.3, Project Description. The list of permitted uses found in Table 5 is added for informational purposes, primarily in relation to the planned Project District Change of Zone Application, and to note the full range of uses that could potentially be included within the Commercial-Village area.

As noted in Section 2.3.7, the active and passive parks will be maintained in private ownership unless and until the County desires to take them over.

Regarding energy conservation measures, a more detailed description of the Project's proposed energy conservation and alternative power generation measure will be added to the discussion on energy use in Section 4.11.5 of the Final EIS. These measures include specific energy and water conservation measures that have been included as part of the design and construction of the existing affordable town home units, the planned installation of photovoltaic panel arrays in the area of the town homes, and the implementation of a electric recharge program for electric vehicles within the Project.

As for natural hazards, Section 3.4.4 will be expanded in the Final EIS to note that "no geologic damage from the 2006 earthquake was evident at the subject property although there was no development present at the time." Additionally, the portion following Section 3.4.6 addressing Natural Hazard Potential Impacts an Mitigation will be expanded in the Final EIS to include a discussion on further earthquake and volcanic hazard mitigation measures, including in the case of volcanic hazards, infrastructure improvements that will facilitate evacuation from the area, as is noted in the subsequent section regarding wildfire mitigation measures. The fact that the Project is planned with several artificial lakes, a golf course, natural buffer areas, open spaces, and parks that can be used to add to the potential wildfire protection measures is noted in Section 3.4.6 and will be amplified in the Final EIS. Additionally, it will be noted that the planned DOE school facility could be designated by the Civil Defense Agency as a potential emergency shelter, further adding to the emergency response capabilities of the area, as is noted in Section 6.6.1 of the EIS.

*Comment: **Hydrology and Water Resources** (pp. 3-14 - 3-19) The DEIS repeatedly points out that groundwater flow in this area is lower compared to surrounding areas in the region, its groundwater wells are presently saline, and development beyond what is proposed for the current project may not be sustainable from a groundwater resource standpoint. However, the DEIA does not address whether this and future developments in this area are sustainable with predicted changes in rainfall from global climate change. Additionally, the DEIS does not address the groundwater extraction's impact on downstream anchialine ponds, a critical and unique coastal habitat in Hawai'i.*

Another concern is that the addition of nutrients from the development to groundwater is underestimated in the Nance Assessment (Appendix D). Certain assumptions in the

calculations used to estimate nutrient additions to groundwater are not well documented ('trickling filter' nutrient removal rates) and some are not accurate (change in runoff after development), and values used in the calculations may underestimate the true impact of the development (the amount of fertilizer nutrients that percolate below the plants' rooting zone). We discuss these concerns greater detail below:

Flow rates: *It is estimated that the groundwater flow rate under the projected 2.9-mile project is 20 MGD. These flow rates are 10% less than the overall average between Kawaihae Harbor and 'Anaeho'omalu Bay. Additionally, the salinities of waters in the onsite groundwater wells at Aina Le'a are higher than down gradient wells to the north and south of the project site, even though these later wells are closer to the shoreline. This fact suggests that there is salt water intrusion into the wells on the proposed site and that groundwater withdraw in this region is greater than its recharge.*
The Nance Assessment estimates that a net of 2.5 to 3.3 MGD of groundwater would be withdrawn from the project site for potable water and irrigation. Accordingly, the groundwater flow rate through the project site will decrease to 16.7 to 17.5 MGD; this is a 12.5 to 16.5% decrease in groundwater flow rates. The report only presents the decrease in groundwater flow rates for the region (from Kawaihae to 'Anaeho'omalu), which is 4% (3.3 MGD of75 MGD). Additionally, changes in rainfall in south Kohala due to global climate change and the future recharge of the groundwater in the region were not discussed in the EIS. Climate models for Hawai'i predict that rainfall in south Kohala will decrease 10 to 20% in the future (Timm and Diaz 2009). This fact needs to be discussed in the EIS with regards to whether groundwater extraction for this proposed project and future ones are sustainable under future climate conditions.

The biggest concern for this development with regards to its water resources is sustainability. This development and future developments in this region may be unsustainable with regards to water resources. The Nance Assessment suggests that the shortfall in groundwater flow from the development's extraction could be offset to some extent by maximizing the use of treated wastewater for landscape and golf course irrigation. However, this offset would be trivial compared to groundwater extraction and does not take predicted climate change into account.

Additionally, extraction of groundwater will decrease the amount and flow rate of groundwater to the ocean and consequently to anchialine ponds. Anchialine ponds are a unique coastal habitat, home to candidates for the endangered species list (Metabetaeus lohena and Megalagrion xanthomela) and species at risk (Halocaridina ruba), where groundwater and ocean water enter through lava tubes. Hawai'i is the only state in the United States with natural anchialine ponds and the greatest number occur along the Kona coast. These ponds have the highest level of biodiversity compared to any other in the Indo-Pacific region. Because of the importance of anchialine ponds as a coastal habitat to endemic and species at risk, the impact of the groundwater extraction and fertilizer practices at the proposed development on anchialine ponds' water levels, salinities, temperatures, oxygen concentrations, pH, and nutrients Gust to name a few parameters) need to be assessed and addressed in the EIS.

Response: Regarding saltwater intrusion, we disagree with your statement that the more saline brackish groundwater in the mauka-to-makai corridor of the Project is due to over-pumping of wells resulting in saltwater intrusion. In fact, the salinity conditions described in the EIS predate any pumping by wells. According to our water resource engineer, Tom Nance, it is the result of the presence of less permeable lava flows being located at and below sea level within this corridor, resulting in greater flow rates and lower salinities within the corridors to the north and south.

You correctly point out that global climate change is not addressed in the EIS. If, in the long term, climate change results in less rainfall-recharge in the aquifer's watershed, there will ultimately be less developable groundwater. This, however, will not be a phenomenon unique to this Project or the South Kohala region. If it should occur, the options will be to limit development or to utilize desalinization. However, it should be noted that planning and regulation of groundwater development and use by the State Commission on Water Resource Management does not include limitations based on presumed global climate change.

The potential impacts to anchialine ponds from the surrounding developments in the Mauna Lani and Waikoloa Resorts has been monitored closely for decades, as these ponds are down-gradient and surrounded by intensively fertilized and irrigated golf courses. Increases in nutrient levels in the ponds' water have been documented, but this has not caused an impact on species found in the ponds. Prior to development of these areas, naturally occurring nutrient levels in groundwater were relatively high. That fact, together with the rapid turnover rates within these ponds, mean that they are not nutrient-limited. While little or no impact to salinity levels are predicted as a result of the brackish well use within the Project, any reductions in the flow-rate of groundwater that may result in slightly elevated salinity levels will favor endemic species, which are euryhaline or able to tolerate a wide range of salinity levels. Elsewhere in West Hawaii, saltwater has been added to ponds to favor endemics by driving out exotic species, which are not euryhaline.

Comment: ***Nutrient additions to ground water.*** *The Nance Assessment estimates that nitrogen concentration in the groundwater will increase 0.2 to 2.2% at full build out of the proposed project and phosphorus will decrease 3.9 to 4.4%. Based on a couple of the assumptions used in the Nance Assessment and discrepancies in the document's statements, these values are probably greatly underestimated. Following, are two conflicting statements from the Assessment: 1) "For the original dissolved constituents (in the fertilizer), it is assumed that 50% of the nitrogen and phosphorus are taken up by plants and the remainder passes below the root zone" and 2) "Of these applications (fertilizer), 10% of the nitrogen and two percent of the phosphorus would be carried below the plant root zone." For the calculations in the Nance Assessment, the later of the two values was used, which is a 40% lower value than the original statement. Published peer- reviewed references should be used to determine the appropriate amount of fertilizer lost to groundwater.*

A second statement in the Nance Assessment that may result in an underestimate of the proposed project's nutrient addition to groundwater is: "Nutrient removal through the vadose zone is similar to a 'trickling filter' (as documented in TNWRE, 2002). It is assumed that that natural removal rates are 85% for nitrogen and 98% for phosphorus." Based on the information provided, it cannot be evaluated whether these stated removal rates for nutrients in the vadose zone are reasonable. It suspected that at least for nitrate (nitrogen) these values are much lower as nitrate is known to be highly mobile in soils due to anion exclusion (http://www.ars.usda.gov/pandp//docs.htm?docid=18760&dropcache=true&mode=preview).

A third statement in the Nance Assessment that may result in an underestimate in the proposed project's nutrient addition to groundwater is: "As a first order approximation, it is assumed that half of this (rainwater) percolates to groundwater and that this amount is essentially unchanged after development." It is well documented that impervious surfaces like streets, driveways, and sidewalks prevent stormwater from naturally percolating into the ground. Consequently, paving the ground's surface results in increased storm runoff. The values used in the Nance Assessment for runoff need to be higher and accordingly this will result in a greater amount of nitrogen and phosphorus entering the groundwater from stormwater runoff from the development.

It is Critical to over-design storm water retention facilities. Although this is a semi arid location, occasional 10-50 year storms will erode established gulches further, over-run the highway and ultimately carry terregonous materials and debris to the ocean. Existence of gulches today supports that notion. Hurricanes can also provide a similar scenario.

Finally, Table 7 on page 3-15 needs units for nitrate and orthophosphate concentrations. Numbers without units are meaningless. Bullet point two at the top of page 3-15 is really just the continuation of bullet point one.

Response: Calculations of the nitrogen and phosphorus additions to groundwater contained in the EIS draw on the pragmatically demonstrated natural removal rates for the ongoing disposal of wastewater from the County's Kealakekua Wastewater Treatment Plant (WWTP). About 1.3 MGD of R-2 treated wastewater is disposed of in an open pit that is up-gradient of Honokohau Harbor. The effluent drops about 50 feet to groundwater and travels about 3500 feet before entering the inland end of the Harbor, which functions as a sink location for groundwater discharge. Nutrient removal rates calculated for this manner of disposal, which were used in the calculations for the planned ‘Āina Le‘a development provides a valid basis for the analyses.

Regarding your comment on the design of flood retention areas, a 50-year storm is used in the design of flood retention areas.

The additional bullet prior to Table 7 is a typographical error that will be corrected in the Final EIS, and units of measurement will be added to Table 7.

Comment: ***Botanical Resources*** *(p. 3-20). The second paragraph under existing conditions on page 3-20 is somewhat confusing. Does the passage mean that some fern of the species Ophioglossum polyphyllum were misidentified as Ophioglossum concinnum, a rare endemic fern species or that the classification of the Ophioglossum concinnum, is wrong and the species is really correctly classified as Ophioglossum polyphyllum and not rare or endemic. It is not clear from the text.*

Response: What was meant in this paragraph is that the prior identification of the fern as *Ophioglossum concinnum* was incorrect and the species on the project site has since been correctly identified as *Ophioglossum polyphyllum*, which is not rare or endemic. The text in Section 3.6 is reworded in the Final EIS to clarify this point.

Comment: ***Avifaunal and Mammals*** *(pp. 3-22 - 3-23). Most DEIS use the scientific as well as the common names of flora and fauna species found at the proposed project site. This avoids confusion for reviewers versed in the scientific nomenclature of plant and animal species, but allows the non-technical reviewer to have an idea of what is found at the proposed project site. The authors of the DEIS do so in some parts of this section but not others. We suggest the authors use both the common and scientific name at least when a species is first introduced to the reader to enhance clarity.*

Response: You are correct that use of both the scientific and common names for flora and fauna is a preferred practice that will be followed for all species listed in Sections 3.6 and 3.7 in the Final EIS.

Comment: ***Cultural Resources*** *(pp. 4-5 - 4-7) The letter by Deborah Chang, referred to on the second paragraph on page 4-6 can be found in section 10 not 11 as stated in the DEIS.*

Response: The correct reference to Section 10 will be made in the Final EIS.

Comment: ***Roads and Traffic*** *(pp. 4-8 - 4-11). Increased traffic is one of the major impacts of the project of the proposed development on the environment. It looks from your analysis, that most of the impacts will be bad. However, the list of mitigative measures is very short and there is very little said about how they will mitigate the worst traffic impacts. Maybe they cannot be mitigated short of getting rid of cars somehow. In the DIES mitigation can't be proposed without discussion on to the extent that the mitigation will actually work to lessen the impact.*

In addition, the DEIS addresses mitigation of local traffic concerns but does not address regional traffic concerns, which are not insignificant given the size of the proposed development. Many of the residents of the proposed village will travel to Kailua-Kona for work and shopping, further worsening regional traffic congestion.

Response: While the traffic conditions at major intersections are described without the Project under the *Existing Conditions* portion of Section 4.6, and future condition are described under the *Potential Impacts and Mitigation* portion, this section will be expanded and reworded in the Final EIS to clarify the effect that the mitigation will have on lessening the Project's traffic related impacts. In regards to the Island wide traffic concerns, especially for those who travel to Kailua-Kona, it is acknowledged in Section 7.2, Cumulative and Secondary Impacts, that the Project, together with other planned development in the region are a reflection of the growing West Hawaii population which will have long-term cumulative impacts to the area, including further impacts to traffic conditions.

Comment: ***Air Quality*** *(pp. 4-12 - 4-14). Section 4.8 addresses vog hazards. What needs to be added is that vog concentrations have increased substantially since the opening of the new (2008) gas vent at the summit of Kilauea volcano. The exact increase in concentrations at the project site is unknown because, as the DEIS notes, measurements have been discontinued. Moreover, the possibility of additional vog from a new eruption of Mauna Loa (now long overdue) should be acknowledged.*

With respect to vog hazards, another piece of information that should be added is that even though concentrations are below air quality standards, there is a widespread recognition that vog can cause eye irritation, headaches, and respiratory irritation. In fact, for sensitive individuals, vog is a factor in their decision on whether to live in West Hawaii.

A statement that limiting the amount of grading to be performed at one time, is made in the fourth paragraph on page 4-13. We were wondering what that limit is?

Response: Response: Section 4.8 of the Final EIS will be expanded to reflect the current situation regarding volcanic emissions and the increased emissions resulting from the 2008 opening of the vent in Kilauea's Halema‘uma‘u Crater. It will also be noted that the emissions primarily impact South Kona, and, to a lesser degree, North Kona. Because it is only during relatively infrequent southerly winds that the emissions reaches the South Kohala district in significant quantity, a detailed discussion of the effects of vog is not believed to be necessary. As for your statement regarding additional emissions from a possible eruption of Mauna Loa, the same could be said for eruptions of Hualalai, and even Haleakela, both of which have erupted in the past several hundred years. The possibility of an eruption of Mauna Loa will also be noted in Section 4.8 of the Final EIS.

As noted in Section 3.3.4 of the Draft EIS, the limit on the amount of grading to performed at one time is 20 acres. That information will also be added to Section 4.8, Air Quality.

Visual and Scenic Resources *(pp. 4-14 - 4-16) In the visual simulations in Figure 15 on page 4-15, you can see a number of blank wall spaces. Are these caused by planned commercial development, by housing or by retail? Is there anything that can be done*

that would hide those blank walls from the road below? Couldn't they be painted to blend in with the background or have landscaping hide some of the walls?

Reponse: In that the final configuration of the Project's components has yet to be determined, the visual simulation in Figure 15 is only approximate. Portions of both the multi-family and commercial building forms are indicated, as noted in the captions beneath each view simulation. As noted in the mitigations portion of Section 4.9, the Applicant has a variety of options including the use of a combination of painting schemes and landscaping to minimize the Project's visual impact from Queen Ka'ahumanu Highway

Comment: ***Drainage*** *(pp. 4-26 - 4-28) It is true that the Universal Soil Loss Equation predicts that post-development erosion will be less than pre-development erosion. In the model, this reduction is due to shorter hill slopes (due to re-grading), the assumption that all erosion originates from raindrop impact, and a more favorable cover management factor. For example, a well-watered lawn experiences less erosion than the existing sparse bushes/grasses. However, the DEIS states that water-conserving landscaping will be used when feasible. Won't water-conserving landscaping be similar, in terms of erosion risk, to existing sparse bushes/grass? Also, smooth paving tends to create faster moving runoff and higher flood peaks, both of which increase erosion occurring due to the traction of surface runoff (an erosion mechanism that occurs in real life but is not included in the Universal Soil Loss Equation).*

The erosion risk during the construction period is much higher than pre-development erosion risk. While standard mitigation measures will be used to minimize this risk, mitigation measures do not always perform as planned. For example the runoff can and often does go around or under sedimentation fences.

Response: Regarding the potential for erosion following development, the addition of a landscaped environment that will include brackish water tolerant grasses, drought tolerant plants and trees will provide significantly greater vegetative cover than currently exists, especially with the introduction of a project-wide irrigation system. This in turn will lead to a reduction to the amount of soil erosion that occurs naturally without development. In fact this beneficial impact can be rather dramatic. The Preliminary Engineering Report prepared by SSFM International (Appendix D) estimates that there would be a potential reduction in soil erosion as a result of the project development in the order of 15,341 tons per year. Also, while it is true that the paved areas of the project will conduct storm water runoff faster than would occur naturally, the preliminary drainage plan for the Project calls for the use of retention basins or drywells to capture water runoff from land use areas and generally retain storm water run-off to the development area, which will thereby minimize the potential for soil erosion.

Comment: ***Recreation*** *(pp. 4-30 - 4-31) The DEIS states that impacts on regional recreation facilities would be minimal because of recreation opportunities within the*

village. This is untrue. You cannot add approximately 4,000 people to the neighborhood and expect that they will never visit the beach. The parking lot at the nearby Mauna Kea Beach Park already fills before 10:00 a.m.

Response: An expanded discussion on the potential impacts to recreational and beach facilities in the area will be included in Section 4.12.1 of the Final EIS

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
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July 6, 2010

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Re: Comments on the Draft Environmental Impact Statement for The Villages of 'Āina Le'a, Waikoloa, Hawai'i, TMK Nos. (3) 6-8-001:025, :036, :037, :038, :039, and :040, and (3) 6-8-002:019.

Aloha e James Leonard:

The Office of Hawaiian Affairs (OHA) is in receipt of your May 25, 2010 request for comments on the above-referenced project. We thank you for the opportunity to provide input into the decision-making process.

OHA understands that the proposed project of DW 'Āina Le'a Development LLC (Applicant) consists of a residential golf community of up to 2,462 units (790 single family residential, 1,047 multiple family residential, 125 mixed use, up to 500 affordable housing units) across 1,060 acres of land purchased by the Applicant in Waikoloa, Hawai'i. The project will include a commercial village, golf course, golf lodge, golf academy, intersection improvements to the Queen Ka'ahumanu Highway, power and water utilities, a wastewater treatment plant, parks, and preserve area for the endangered ko'oloa'ula or red 'ilima (*Abutilon menziesii*). Based on review of the Draft Environmental Impact Statement (DEIS), OHA offers the following comments.

First, OHA recognizes that the Applicant ultimately seeks a reclassification of the Project Area to a Project District zoning classification. In addition to increased development flexibility under a Project District classification, the Applicant also gains the ability to develop the project area without the need for repeated amendments to zoning as development plans change.

Although the reclassification would avoid repeated amendment requests to the County Planning Department, the Applicant will also avoid the associated oversight of the development. Therefore, we rely on the assurances of the Applicant to adhere to the Project District Zoning Development Standards and to follow sustainable planning guidelines, including "conduct[ing] site planning to preserve existing resources and natural features."

Second, we recognize the plans of the Applicant to engage in responsible development. These plans include the development of a mauka-makai connector road, 16-acre active park, 5-acre preserve area to protect the red 'ilima, fair-share contributions to police, fire, and EMS-related facilities, 32-acre set aside for a school site, and the construction of 385 affordable housing units. Because the Project "will potentially be one of the County's largest single developments," we encourage the Applicant to fulfill its obligation to provide affordable housing in Hawai'i County.

Third, we understand that two sites of cultural significance are located in or near the project area. Site 15033 is a burial site located approximately 1,000 feet from the project site on land owned by Bridge 'Āina Le'a, the previous owner of the project site. A burial treatment plan for Site 15033 was approved by the State of Hawai'i Historic Preservation Division (SHPD) in January 2004. Site 22514 is a rock shelter located within the highway buffer area between the project area and Queen Ka'ahumanu Highway. The Archaeological Data Recovery Report prepared by Archeological Consultants of the Pacific, Inc. in 2005 recommended that the Applicant prepare a Preservation Plan for the rock shelter. The Report was approved by SHPD in October 2005. The Applicant stated that it would prepare a Preservation Plan once it determined the interface between Site 22514 and the surrounding development plans. OHA requests the opportunity to review the Preservation Plan for Site 22514 when submitted to SHPD for approval.

Finally, we suggest that the Applicant consider native plants for use in landscaping where applicable, as provided in Hawai'i County General Plan, Policy d.

Thank you once again for the opportunity to comment. Should you have any questions, please contact Everett Ohta at 594-0231 or by email at everetto@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Chief Executive Officer

C: DW 'Āina Le'a Development, LLC
Attn: Robert Wessels, Managing Partner
68-4747 Queen Ka'ahumanu Highway
Kamuela, Hawai'i 96743

Hawai'i County Planning Department
Attn: B J Leithead Todd, Planning Director
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

Robert K. Lindsey, Jr., Trustee, Hawai'i

OHA West Hawai'i CRC Office

OHA East Hawai'i CRC Office

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Clyde W. Nāmuʻo, Chief Executive Officer
Office of Hawaiian Affairs
711 Kapiʻolani Boulevard, Suite 500
Honolulu, HI 96813

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Nāmuʻo:

Thank you for your letter of July 6, 2010 (attached) in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

Comment: First, OHA recognizes that the Applicant ultimately seeks a reclassification of the Project Area to a Project District zoning classification. In addition to increased development flexibility under a Project District classification, the Applicant also gains the ability to develop the project area without the need for repeated amendments to zoning as development plans change. Although the reclassification would avoid repeated amendment requests to the County Planning Department, the Applicant will also avoid the associated oversight of the development. Therefore, we rely on the assurances of the Applicant to adhere to the Project District Zoning Development Standards and to follow sustainable planning guidelines, including "conduct[ing] site planning to preserve existing resources and natural features."

Response: Should the proposed Project District Zoning Development Standards be approved and adopted within a County Ordinance as part of the approval process for the proposed Project District Zoning application, the developer will be legally required to proceed in accordance with the approved development standards. The Applicant has also committed to conduct its site planning in a manner that seeks to preserve existing resources and significant natural features of the area, as stated in the Project Guidelines within Section 2.4.1 of the Draft EIS.

Comment: Second, we recognize the plans of the Applicant to engage in responsible development. These plans include the development of a mauka-makai connector road, 16-acre active park, 5-acre preserve area to protect the red 'i1ima, fair-share contributions to police, fire, and EMS- related facilities, 32-acre set aside for a school site, and the construction of 385 affordable housing units. Because the Project "will potentially be one of the County's largest single developments," we encourage the Applicant to fulfill its obligation to provide affordable housing in Hawai'i County.

Response: The applicant has made a commitment to fulfill its obligations to provide affordable housing in Hawaiʻi County, as evidenced by its completion of 32 affordable townhome units and planned construction of 353 additional affordable units over the next few months.

Comment: Third, we understand that two sites of cultural significance are located in or near the project area. Site 15033 is a burial site located approximately 1,000 feet from the project site on land owned by Bridge' Aina Le'a, the previous owner of the project site. A burial treatment plan for Site 15033 was approved by the State of Hawai'i Historic Preservation Division (SHPD) in January 2004. Site 22514 is a rock shelter located within the highway buffer area between the project area and Queen Kaʻahumanu Highway. The Archaeological Data Recovery Report prepared by Archeological Consultants of the Pacific, Inc. in 2005 recommended that the Applicant prepare a Preservation Plan for the rock shelter. The Report was approved by SHPD in October 2005. The Applicant stated that it would prepare a Preservation Plan once it determined the interface between Site 22514 and the surrounding development plans. OHA requests the opportunity to review the Preservation Plan for Site 22514 when submitted to SHPD for approval.

Response: Site 22514 is located in a location adjacent to the planned golf course, in the area of the Highway Buffer area. As noted, the Applicant will prepare a Preservation Plan for this site, once plans for the golf course are further defined and it determines the interface between golf course and this site. At the time that the Plan is prepared, the Applicant will instruct its archaeological consultant to consult with OHA in preparing the Plan.

Comment: Finally, we suggest that the Applicant consider native plants for use in landscaping where applicable, as provided in Hawaiʻi County General Plan, Policy d.

Response: The Applicant intends to implement a landscaping plan that will utilize native plants appropriate for the area, as noted in Section 3.6 of the Draft EIS.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

J M Leonard Planning, LLC 1100 Ainalako Road Hilo Hawaii 96720

Puako
COMMUNITY ASSOCIATION

July 7, 2010

Mr. Robert Wessels, Managing Partner, DW Aina Le'a Development, LLC
B.J. Leithead Todd, Planning Director, Hawaii County Planning Department
J.M. Leonard, Consultant, J.M. Leonard Planning, LLC

RE: DEIS Comments: The Villages of Aina Le'a

Dear Mr. Wessels, Director Leithead Todd, and Mr. Leonard:

The Puako Community Association (PCA) herewith provides our comments regarding the DEIS for the Villages of Aina Le'a. The PCA has been an active participant and interested party in matters involving the subject lands since the days of Signal Properties, Nansay Hawaii Inc., Bridge Aina Le'a, and now DW Aina Le'a. We have testified at many hearings before the County Council and Planning Commission and the Land Use Commission.

The PCA executed an agreement with Nansay on December 11, 1991 which continues to this day and is binding on current and future owners. The agreement requires the developer to provide environmental monitoring programs, pesticide management programs, and an integrated golf course management plan, develop a scientifically effective ground water monitoring protocol and chemical use program which is safe and free of significant human health risks. The PCA would like the covenants in the agreement to be made part of conditions the County of Hawaii places upon the developer in their Project District Zoning request. We will forward a copy of the agreement under separate cover.

Yours truly,

Peter Hackstedde
President, Puako Community Association

Puako Community Association, P.O. Box 44345, Kawaihae, HI 96743

EIS Preparation Notice

In December 2007, an EISPN was published for a project that was to occupy all 3,000 acres of land then owned by Bridge `Aina Le`a. The project anticipated at that time was vastly different from that proposed in this DEIS. In many cases, the comments received on the EISPN do not pertain to this project. Also, had a new EISPN been published for this project, it is likely that more pertinent (and timely) concerns would have been raised.

We question, therefore, whether this substantially revised project can piggyback on the EISPN prepared for a different developer, by a different consultant, and for a different project.

Statements of Ownership

Throughout the DEIS, statements are made that DW `Aina Le`a (DWAL) purchased the property in either 2008 or 2009. According to Hawai`i County Real Property Tax Office records, all the TMK parcels that make up the project area belong to Bridge `Aina Le`a except for one – the parcel where affordable housing units are in the process of being constructed. This sole parcel, TMK (3) 6-8-001:036, is owned by `Aina Le`a LLC and more than 300 individuals with addresses in Singapore.

While there is a sale agreement between Bridge `Aina Le`a, on the one hand, and DW `Aina Le`a Development, LLC and Relco Corp. on the other, as described in the appendices to the DEIS, this agreement is contingent upon a number of conditions being fulfilled. In any case, only one of the parcels identified in the sale agreement had been conveyed to DW `Aina Le`a or an affiliated entity at the time the DEIS was released.

The DEIS should at the very least correct the mis-statements that DW `Aina Le`a owns the land. Paragraph 12 of the agreement of sale does give Buyer (DWAL) "exclusive possession of the Urban Land" and authorizes DWAL "to take all actions and do all things … to develop the Urban Land." So long as title to the lands remains with Bridge `Aina Le`a, however, any statement that DWAL "owns" the land is incorrect and misleading.

Moreover, that same agreement of sale gives DWAL authority to develop land in the Urban District alone. Several elements of the project area lie outside the Urban district, including the site for wastewater treatment plant, parks, a portion of the golf course, and the 32 acres for schools. Also, the proposed development of the emergency access road into a connector road to Waikoloa Village's Hulu Street assumes authority over lands in the Agriculture District. Inasmuch as all these proposals imply that DWAL has authority over at least some portion of Agriculture lands still owned by Bridge `Aina Le`a, and not a part of the agreement of sale, we question the inclusion of such proposals in any Environmental Impact Statement that does not include Bridge `Aina Le`a (or successor owner of the Agriculture land) as an applicant as well.

Given that the owner is `Aina Le`a LLC plus 319 (at last count) individuals, the question arises: what authority does DW `Aina Le`a have to speak for those individuals? The DEIS does state that `Aina Le`a LLC is a subsidiary of DW `Aina Le`a , but it is silent on the relationship between the individuals and `Aina Le`a LLC.

We believe that it would be irresponsible for any authority to accept an EIS that did not offer some sort of proof of the ability of the EIS preparer to develop the property

in the manner proposed. If the preparer is the sole owner, there's no problem. If the preparer holds some kind of development rights (as the agreement between Bridge `Aina Le`a and DW `Aina Le`a , included in the appendix purports to show), then maybe that would satisfy this need. But when you have `Aina Le`a PLUS more than 300 individuals owning one of the parcels, we think you would need to show that those individuals sign off on the development proposal as well. After all, the Bureau of Conveyances has recorded their ownership of undivided fractional shares of the property; they are not merely members of some LLC that, in turn, owns the land.

We request that the EIS explain what in fact is the relationship between DWAL and Bridge Capital, LLC. Bridge Capital, LLC's current website appears to describe all 3000 acres of the `Aina Le`a lands as being available for purchase in their entirety. How serious is DWAL about completing this project when it's all up for sale?
http://www.bccnmi.com/property-listings-hawaii.html

Subject Land

Figure 2 of the Draft EIS contains errors. The correct configuration for Parcel 36 (now 61-plus acres) is not shown on Figure 2. What is labeled as Parcel 36 is now included in Parcel 25, as a result of a consolidation and resubdivision carried out in 2009.

Conservation, Energy Efficiency, Solar Power

In an early presentation to the Puako Community Association (PCA), Bridge`Aina Le`a representatives listed several themes and benefits which the Villages of `Aina Le`a would incorporate to provide a "responsible environmental and energy sensitive development." Among the themes were roads, tree lined on each side with trees in the median strips, creating a canopy effect; side walks, cart and bike paths; extensive landscaping; solar energy generation and promotion of electric vehicles. Benefits would include: Solar Power – Commercial photo-voltaic generation; Electric Vehicles (& golf cart) – Special Access through out all of `Aina Le`a; High Speed Data Access – cable, ADSL, ISDN.

The DEIS indicates that the project will "encourage use of solar" power. However, the applicant's commitment seems to be limited to the role of cheerleader exhorting buyers of lots to do their best, but not imposing any requirement that conservation and energy efficiency goals be met. Given the location of this development, the developer should be required to use photovoltaic panels on all structures or, alternatively, in a community-scale power system incorporated into the development.

There is no discussion in the DEIS about how the project will incorporate designs and technologies that ensure efficiency and conservation with respect to energy and water. Section 2.4.1. contains a generic list of items that generally promote sustainable development, but for the most part the only commitment is to encourage others down the road to adopt them. In an attached letter to Maurice Kaya of the Department of Business, Economic Development, and Tourism, the statement is made that the developer recognizes "the need for actions to enhance the sustainability of the development" and that "the applicant understands the value of sustainable development and will encourage the application of energy and resource efficient guidelines throughout the project." However, the construction that has occurred to date in the affordable housing units belies this commitment. There is no solar-energy installation to heat water. There is no

plumbing designed to accommodate solar hot-water heating if it should be retrofitted onto the affordable units.

Transportation

In this same vein, there is no provision for public transportation in the design – no transportation hub, no park-and-ride lots, no bus terminals. There is no proximity to arterial roads that would allow for use of public transportation by occupants. Every part of the plan assumes that personal vehicles will be the primary mode of transportation to destinations outside the project area. Since the DEIS anticipates that many residents will be part of the Kona-Kohala workforce, there should be some provision made for mass transit options.

Affordable Housing

In 2.1.5., the statement is made that construction of the first phase (the affordable housing) will take place over three years (February 2009 through February 2012). Under the Land Use Commission's conditions, however, construction of 385 units of affordable housing must be completed (with certificates of occupancy in hand) by November 17, 2010. Please address this apparent contradiction.

The Bridge `Aina Le`a developer described his project to the Land Use Commission as one that would mix market homes and affordable units in the same neighborhoods, blending the two so as to prevent what has happened with the ghetto-like nature of the present 54 affordable 8-plexes all grouped in a single area.

With excess affordable/workforce housing inventory in Waikoloa Village it is doubtful that sufficient qualified affordable buyers will purchase units at `Aina Le`a and the units will eventually be offered on the open market to any willing buyer. The `Aina Le`a affordable units are priced on the high end of the affordable scale. These unfortunate factors defeat the purpose of providing truly affordable housing to those who work in the resort areas of South Kohala.

School Site

The DEIS anticipates that 32 acres in Agriculture land will be dedicated to the Department of Education for school purposes. However, the Land Use Commission condition relating to this clearly states that 16 acres are to be provided "within the property" subject to the redistricting petition (i.e., Urban land).

Potable Water and Groundwater

The DEIS briefly describes a dual water system where non potable water would be used for irrigation and mentions the need for a "water reuse plan." This plan should be prepared and thoroughly reviewed before further construction is permitted. Regarding potable water demand, on page 3-17, this is given at 1.323 million gallons a day (mgd). Two pages later, however, potable water demand is said to be between .29 and .63 mgd. ("It is estimated that 35% of the 0.29-0.63 mgd potable water use for the project would become wastewater.") This mis-statement results in a gross under-estimate of the volume of wastewater – at most, it would be .22 mgd if the potable water use ranged from between .29 and .63 mgd. On the other hand, if the 1.323 mgd cited two pages earlier is

used as the basis for calculating wastewater generation, the figure is .46 mgd (again assuming 35 percent ends up as wastewater).

The DEIS states (Section 3.5), that "nutrient levels down-gradient of the Waikoloa Village golf course and Waikoloa WWTPs are lower than levels up-gradient." The Nance *Assessment* concludes that this lack of an identifiable impact from Waikoloa Village generally and its disposal of wastewater specifically on regional groundwater quality is "significant."

This conclusion assumes that there is nothing to impede the flow of groundwater in a straight downward makai course from the Waikoloa Village facilities. This assumption may not be justified, however. A recent study of the impacts of the Lahaina wastewater treatment plant done by the U.S. Geological Survey determined that geological features underground caused the injectate from the wastewater treatment plant injection wells to be diverted in a southerly direction, resulting in the impacts to coastal water being found further south than had been expected. (See: Scientific Investigations Report 2009-5253, *A Multitracer Approach to Detecting Wastewater Plumes from Municipal Injection Wells in Nearshore Marine Waters at Kihei and Lahaina, Maui, Hawai`i,* by Charles D. Hunt Jr., and Sarah N. Rosa, USGS, 2010.)

The limited testing done by Nance is hardly sufficient to justify claims that the impact of the nutrients that will be contributed to groundwater as a result of the proposed project will be nil or de minimis – or even beneficial. We share the concern of our neighbor, the Mauna Lani Resort (MLR), that wells drilled on `Aina Le`a land for irrigation purposes may cause increased salinity in the groundwater presently tapped by MLR. This could have dire consequences for MLR.

Furthermore, the potable water average usage per lot at Puako is 1500 gpd. Puako has 14,000 square foot lots for a total of 161 lots. The projected usage of 600 gpd for single family market homes at `Aina Le`a appears unrealistic.

Sewage Treatment

Appendix D1 explains how the wastewater generation totals were calculated. The occupancy density of the townhomes (affordable units) is figured at 4 persons per unit. Given that the units have three or four bedrooms, it would seem as though the occupancy density estimate is too low. If so, the estimate of wastewater generated by the affordable units is also too low.

The DEIS is silent as to the fate of the sewage sludge produced by the wastewater plant. Will it be landfilled? Composted?

The permanent treatment plant (for phases 2 and 3) is proposed to be on land in the state Agriculture District. Is this a permitted or permissible use?

Finally, there is no discussion of the impact, if any, of the unpermitted temporary wastewater system installed to serve the first two apartment buildings in the affordable-housing area. Will the use of this system (which needs to be described) or its removal have environmental impacts?

Regarding this leach field/temporary wastewater system, we find it disturbing and incredible in the Office of State Planning findings that "Petitioner did not have a permit from the Department of Health and received a field citation for the violation of law. Petitioner both violated the law and misrepresented the facts during the last [LUC] site

visit." The EIS should explain this violation and confirm that no such illegal acts will happen in the future.

Runoff

The DEIS says that "drainage facilities will be designed for the 10 year or 50 year storm as required by the County." Which is it? The DEIS references several potential ways to mitigate runoff, but commits to none. An approved plan for storm water runoff should be prepared and evaluated before further construction is permitted. Also, a worst-case-scenario with storm water entering the near-shore reef ecosystem should be evaluated and mitigated.

The SSFM International Consultant's Flood Mapping Section 3.6 states: "COH requires that any new development be protected from flooding resulting from a 100-year storm. The project storm drain system is designed for a 50-year storm. During a 100-year storm the Urban District storm drain system capacity would be exceeded. Major streams must be analyzed and the 100-year floodplain identified. The development must meet the conditions of Chapter 27, Flood Control. The development should not encroach on the 100-year floodplain. And, the development must be elevated **above** the 100-year base flood elevation." The EIS should include 100 Year Flood Mapping.

The DEIS anticipates the use of retention ponds and drywells to deal with storm runoff. However, recently the U.S. Geological Survey studied the impact of drywells in the County of Hawai`i. The study ("Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai`i," by Scot Izuka *et al.*) notes: "Some of the water that flows into the dry wells comes from runoff that would otherwise have flowed to the ocean through surface-drainage systems. Dry wells reroute this water from the surface system to the groundwater flow system. Most of the water still ultimately flows to the ocean, but it is subject to processes in the groundwater system and in most cases will discharge in a different location in the ocean than it would have if it remained in the surface system. Drywells also receive some water that would otherwise have infiltrated the ground over a broad area and inject this water at point locations. Because drywells are excavations through surface soil and into the underlying rock, they allow water to bypass the natural filtering properties of surface soil and vegetation and shorten the distance through which infiltrating water must percolate before reaching the water table. The water table is the top of the saturated aquifer; thus, any water or contaminants that reach the water table become part of the saturated groundwater system. Recently, concern has been raised that storm runoff entering the drywells may transport contaminants from roads and adjacent urbanized areas to groundwater and affect drinking-water sources and coastal ecological systems that are dependent on groundwater…" While the impact of runoff on drinking water sources in this area is not a concern, the potential impact of runoff into drywells on coastal water quality should be addressed.

Project District Zoning

Several community benefits were made part of conditions of earlier development plans. These included Municipal Rate Golf – either a municipal golf course or equivalent number of plays; a 1200 foot wide highway buffer; a pedestrian and/or bicycle path; and other benefits. We are very concerned that the proposed commercial area appears to

encroach on the highway buffer. Keeping the Queen Kaahumanu Highway a scenic highway is critical. We do not want to see Project District Zoning used as a means to curtail any of the original community assessment benefits.

Time Shares

We see little reference to time shares in the DEIS despite 750 time share units contemplated by the developer. The Puako Community has been opposed to time shares from day one. The South Kohala Community Development Plan prohibits time shares mauka of the Queen K highway.

Facilities District Financing

The reliance on Facilities District financing to provide funds for infrastructure seems farfetched. There are no homeowners or lot owners to assess. This scheme needs a detailed explanation as to how it will be implemented specifically for this project.

The recent articles in the West Hawaii Today describing the failure of the developer to pay for work done on the affordable homes is very worrisome and leads us to believe the present "owners" may never get sufficient financing to complete the project. Furthermore, the high cost money raising scheme in Singapore is another example of the weak financial position of the "owners."

Effects on Neighboring Communities, Social Impacts

The Draft EIS states that the development will be "an integral and contributing part of the Puako, Mauna Lani and Waikoloa communities." Yet, the plan does little to define and address the anticipated adverse impacts on these communities.

For example, the DEIS does not address the impact of an estimated 5,780 new residents seeking recreational opportunities in the coastal resorts and communities of South Kohala. Provision of additional urban park space within the `Aina Le`a development will do nothing to satisfy increased demand for diverse nearshore recreation. The developer should be required to mitigate impacts to coastal recreation areas by providing additional infrastructure and services (e.g. parking, bathroom, enforcement, interpretive signs, etc.)

Fugitive dust: The DEIS suggests that coastal water quality will not be impacted by fugitive dust due to distance from the coastline. Residents of Puako and Mauna Lani have good reason to question this assumption, based on the history of dust problems from adjacent lands.

Wildland Fire: The coastal communities and resorts of South Kohala and the Waikoloa community have all been threatened on several occasions by wildfire. There is good reason to question the adequacy of fire protection strategies that are addressed so briefly in the DEIS.

Intersection Improvements: Perhaps the most important community benefit which would indeed contribute to the communities of South Kohala and the public in general would be the signalization and full channelization of the intersection at the Mauna Lani Resort and Queen K Highway. This improvement needs to be done no matter what happens to this project and it must be done in Phase I.

SMS Consultants: To the best of our knowledge no one interviewed members of the board of the PCA or community leaders at the Mauna Lani Resort Association to

determine their opinions about the Villages at `Aina Le`a. Had the consultant taken the time to review the voluminous past testimony, petitions, etc., to the County Council and the Land Use Commission in matters dealing with the development over the years one would have discovered a pattern of opposition and distrust our coastal communities have expressed about the project time after time.

Ordnance

It is not clear from the DEIS how the risks associated with unexploded ordnance will be adequately mitigated.

Solid Waste

The DEIS indicates that the Puako transfer station will be available for use by the additional 2,462 residential units in the new development. The Puako transfer station is already near its potential capacity for both residential and green waste, so this "plan" is unworkable.

Alternatives and Consistency with Other Plans

The DEIS devotes only token consideration to viable project alternatives. At the very least, the option of " development at lower densities" should be seriously evaluated.

The DEIS references several State and County planning documents that stress the need to preserve and restore significant natural resources, including coastal waters. Yet, the DEIS does not adequately consider the potential impacts of this project on the very rich nearshore reef ecosystem in South Kohala.

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Peter Hackstedde, President
Puako Community Association
P.O. Box 44315
Kawaihae, HI 96743

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Hackstedde:

Thank you for your letter of July 7, 2010 (attached) in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

*Comment: **EIS Preparation Notice.** In December 2007, an EISPN was published for a project that was to occupy all 3,000 acres of land then owned by Bridge `Aina Le`a. The project anticipated at that time was vastly different from that proposed in this DEIS. In many cases, the comments received on the EISPN do not pertain to this project. Also, had a new EISPN been published for this project, it is likely that more pertinent (and timely) concerns would have been raised.*

We question, therefore, whether this substantially revised project can piggyback on the EISPN prepared for a different developer, by a different consultant, and for a different project.

Response: While there has been a change to the property ownership and to the consultants used in the preparation of the EISPN and the Draft EIS for this project, these aspects are not relevant to meeting the environmental review objectives of Chapter 343 of the Hawaii Revised Statutes (HRS), and the requirements and procedures of the Environmental Impact Statement Rules set forth in Title 11, Chapter 200 of the Hawaiʻi Administrative Rules (HAR). With regards to the change to the project scope, the Project, through the sale of the predominately urban core of the original 3,000 acres, is reduced in the size and scale. The Project location has not changed and the conceptual development plan for this central portion of the project site has not changed between that described in the EISPN and the Draft EIS. Further, the description of the affected environment, potential impacts, and mitigation requirements; relationship to land use

plans, policies and regulations; alternatives; and findings contained within the EISPN are not changed by the reduction of the size and scope of the Project.

Comment: ***Statements of Ownership.*** *Throughout the DEIS, statements are made that DW `Aina Le`a (DWAL) purchased the property in either 2008 or 2009. According to Hawai`i County Real Property Tax Office records, all the TMK parcels that make up the project area belong to Bridge `Aina Le`a except for one – the parcel where affordable housing units are in the process of being constructed. This sole parcel, TMK (3) 6-8-001:036, is owned by `Aina Le`a LLC and more than 300 individuals with addresses in Singapore.*

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The DEIS should at the very least correct the mis-statements that DW `Aina Le`a owns the land. Paragraph 12 of the agreement of sale does give Buyer (DWAL) "exclusive possession of the Urban Land" and authorizes DWAL "to take all actions and do all things … to develop the Urban Land." So long as title to the lands remains with Bridge `Aina Le`a, however, any statement that DWAL "owns" the land is incorrect and misleading.

Moreover, that same agreement of sale gives DWAL authority to develop land in the Urban District alone. Several elements of the project area lie outside the Urban district, including the site for wastewater treatment plant, parks, a portion of the golf course, and the 32 acres for schools. Also, the proposed development of the emergency access road into a connector road to Waikoloa Village's Hulu Street assumes authority over lands in the Agriculture District. Inasmuch as all these proposals imply that DWAL has authority over at least some portion of Agriculture lands still owned by Bridge `Aina Le`a, and not a part of the agreement of sale, we question the inclusion of such proposals in any Environmental Impact Statement that does not include Bridge `Aina Le`a (or successor owner of the Agriculture land) as an applicant as well.

Given that the owner is `Aina Le`a LLC plus 319 (at last count) individuals, the question arises: what authority does DW `Aina Le`a have to speak for those individuals? The DEIS does state that `Aina Le`a LLC is a subsidiary of DW `Aina Le`a , but it is silent on the relationship between the individuals and `Aina Le`a LLC.

We believe that it would be irresponsible for any authority to accept an EIS that did not offer some sort of proof of the ability of the EIS preparer to develop the property in the manner proposed. If the preparer is the sole owner, there's no problem. If the preparer holds some kind of development rights (as the agreement between Bridge `Aina Le`a and DW `Aina Le`a , included in the appendix purports to show), then maybe that would satisfy this need. But when you have `Aina Le`a PLUS more than 300 individuals owning one of the parcels, we think you would need to show that those individuals sign off on the development proposal as well. After all, the Bureau of Conveyances has recorded their ownership of undivided fractional shares of the property; they are not merely members of some LLC that, in turn, owns the land.

We request that the EIS explain what in fact is the relationship between DWAL and Bridge Capital, LLC. Bridge Capital, LLC's current website appears to describe all

3000 acres of the `Aina Le`a lands as being available for purchase in their entirety. How serious is DWAL about completing this project when it's all up for sale? http://www.bccnmi.com/property-listings-hawaii.html

Response: To answer to your questions regarding the ownership of the lands and other investment interests in the Property, DW 'Aina Le'a Development, LLC and Relco Corp. (DWA) are owners of the approximately 1,092-acre property comprising primarily the Urban designated lands through an amended purchase and sale agreement (Agreement) in which Bridge assigned the rights, title and interest in the property to DWA through an installment sale; that is, installment payments on an established schedule. As you noted, a redacted copy of this purchase and sale agreement is contained in Appendix A of the EIS. There is also a Joint Development Agreement between Bridge 'Āina Le'a (Bridge) and DW 'Āina Le'a Development, LLC (DW) which allows for DW to cross Bridge lands and further allows Bridge to add capital to the wastewater treatment plant and/or the water wells to have them expanded at their cost for future development. The Joint Development Agreement also allows for DW's use of portions of the Bridge lands for utility purposes, and for the planned wastewater treatment plant and active park development. With regard to the investment interests in Parcel 36 of the Property, each investor, who has a tenants-in-common ownership interest in this parcel, has signed a statement that they will not occupy the land and each has given full power of attorney to DWA and the builder to develop the property without any interference by or in consultation with the tenants-in-common owners. The tenants-in common ownership interest for each of the investors will expire following the approximately 30-month investment period. To help clarify this point, an expanded description of the ownership interests in the property will be included in Section 1.5 of the Final EIS.

Comment: ***Subject Land.*** *Figure 2 of the Draft EIS contains errors. The correct configuration for Parcel 36 (now 61-plus acres) is not shown on Figure 2. What is labeled as Parcel 36 is now included in Parcel 25, as a result of a consolidation and resubdivision carried out in 2009.*

Response: You are correct regarding the reconfiguration of Parcels 36 and 25. The TMK Parcel map in Figure 1 had been prepared based on the County TMK maps that were available at the time and had not been updated to reflect the more recent re-subdivision. Figure 2, TMK Parcels, will be updated and corrected in the Final EIS.

Comment: ***Conservation, Energy Efficiency, Solar Power.*** *In an early presentation to the Puako Community Association (PCA), Bridge`Aina Le`a representatives listed several themes and benefits which the Villages of `Aina Le`a would incorporate to provide a "responsible environmental and energy sensitive development." Among the themes were roads, tree lined on each side with trees in the median strips, creating a canopy effect; side walks, cart and bike paths; extensive landscaping; solar energy generation and promotion of electric vehicles. Benefits would include: Solar Power – Commercial photo-voltaic generation; Electric Vehicles (& golf cart) – Special Access through out all of `Aina Le`a; High Speed Data Access – cable, ADSL, ISDN.*

The DEIS indicates that the project will "encourage use of solar" power. However, the applicant's commitment seems to be limited to the role of cheerleader exhorting buyers of lots to do their best, but not imposing any requirement that conservation and energy efficiency goals be met. Given the location of this development, the developer should be required to use photovoltaic panels on all structures or, alternatively, in a community-scale power system incorporated into the development.

There is no discussion in the DEIS about how the project will incorporate designs and technologies that ensure efficiency and conservation with respect to energy and water. Section 2.4.1 contains a generic list of items that generally promote sustainable development, but for the most part the only commitment is to encourage others down the road to adopt them. In an attached letter to Maurice Kaya of the Department of Business, Economic Development, and Tourism, the statement is made that the developer recognizes "the need for actions to enhance the sustainability of the development" and that "the applicant understands the value of sustainable development and will encourage the application of energy and resource efficient guidelines throughout the project." However, the construction that has occurred to date in the affordable housing units belies this commitment. There is no solar-energy installation to heat water. There is no plumbing designed to accommodate solar hot-water heating if it should be retrofitted onto the affordable units.

Response: While it is true that solar water heating systems were not included in the design and construction of the affordable housing units, the developer has indicated a commitment to the application of energy and resource efficient guidelines by incorporated several energy and water conservation measures as part of the design of the town home units, including water conserving fixtures and toilets, use of Energy Star appliances, insulated walls and ceilings, and the use of double-paned glass throughout. Although solar water heating was not included for these buildings they are "plumbed" so that solar water heating could be added at a future time. The Applicant is also seeking LEED Certification for these buildings.

Comment: ***Transportation.*** *In this same vein, there is no provision for public transportation in the design – no transportation hub, no park-and-ride lots, no bus terminals. There is no proximity to arterial roads that would allow for use of public transportation by occupants. Every part of the plan assumes that personal vehicles will be the primary mode of transportation to destinations outside the project area. Since the DEIS anticipates that many residents will be part of the Kona-Kohala workforce, there should be some provision made for mass transit options.*

Response: As noted in Section 2.3.8, Project Access, Circulation and Roads, the only public transit currently serving the area of Waikoloa Village is a single bus route provided by the Hawai‘i County Mass Transit Agency between the Village and Kailua-Kona with a single morning pick-up and afternoon drop-off at the Waikoloa Post Office. In response to your comment regarding the provisions for public transportation in the design, it will be noted in Section 2.3.8 in the Final EIS that the primary Project roads will be planned to accommodate bus use, which could include pick-up and drop-off locations, and park-and-ride facilities, should this service be extended to the project. Section 2.3.8 will also be expanded to note that the Applicant is committed to working

with County transit officials to include the Project as a potential bus stop for those commuting to Kailua-Kona, when justified by a sufficient number of residents within the development.

Comment: ***Affordable Housing.*** *In 2.1.5, the statement is made that construction of the first phase (the affordable housing) will take place over three years (February 2009 through February 2012). Under the Land Use Commission's conditions, however, construction of 385 units of affordable housing must be completed (with certificates of occupancy in hand) by November 17, 2010. Please address this apparent contradiction.*

The Bridge `Aina Le`a developer described his project to the Land Use Commission as one that would mix market homes and affordable units in the same neighborhoods, blending the two so as to prevent what has happened with the ghetto-like nature of the present 54 affordable 8-plexes all grouped in a single area.

With excess affordable/workforce housing inventory in Waikoloa Village it is doubtful that sufficient qualified affordable buyers will purchase units at `Aina Le`a and the units will eventually be offered on the open market to any willing buyer. The `Aina Le`a affordable units are priced on the high end of the affordable scale. These unfortunate factors defeat the purpose of providing truly affordable housing to those who work in the resort areas of South Kohala.

Response: Regarding the timing for construction of the affordable housing units, the description and timing of the Phase 1 improvements found in Section 2.5.1 of the Draft EIS was intended to cover all of the Phase 1 improvements, including the 385 affordable housing units. As stated in Section 2.3.3, Affordable Housing Units, the Applicant was expecting to complete the first increment of 32 affordable townhouse units by March of 2010 and the full 385 units by November 2010 in compliance with the amended Condition 1 of the State Land Use Commission (SLUC) Decision and Order. The description of the Phase I improvements in Section 2.5.1 will be reworded so that it is clear that construction of the 385 affordable units is planned to be completed by November 2010.

Regarding your comment as to the grouping of the affordable housing units into a single area rather than being spread throughout the phased development, the timing for construction of these units is largely dictated by the conditions of the Land Use Commission Decision and Order. We should note, however, that additional market town house units are planned in the area of the 385 "affordable" town house units, which will be nearly identical in terms of size and design. We, therefore, disagree with your characterization of the "ghetto-like nature" of the planned affordable housing townhouse buildings, which will be indistinguishable from the adjacent market units. In terms of the affordability of the units, the pricing and conditions for sale of the affordable housing unites will need to meet the affordable housing guidelines set by the County for units of this size.

Comment: ***School Site.*** *The DEIS anticipates that 32 acres in Agriculture land will be dedicated to the Department of Education for school purposes. However, the Land Use*

Commission condition relating to this clearly states that 16 acres are to be provided "within the property" subject to the redistricting petition (i.e., Urban land).

Response: The proposed school site location is being discussed with the Department of Education (DOE) to determine how it would best meet the DOE requirements in terms of size, topography, and vehicular access. You are correct that the proposed school site differs from that envisioned at the time of the initial redistricting of property, and further amendments to the LUC's conditions of approval and other land use approvals will be required in order to allow for the school use in the Agricultural district. The Applicant has filed a motion with the State Land Use Commission to modify the public schools site condition to allow either the maximum 16-acre site within the urban classified land or a 32 acre site outside that area on terms and conditions acceptable to the Applicant and the DOE. The motion is tentatively set for hearing on November 4, 2010. A discussion of the additional land use approvals required for the proposed school use within the Agricultural District will be included in Section 4.12.5 of the Final EIS.

Comment: ***Potable Water and Groundwater.*** *The DEIS briefly describes a dual water system where non potable water would be used for irrigation and mentions the need for a "water reuse plan." This plan should be prepared and thoroughly reviewed before further construction is permitted. Regarding potable water demand, on page 3-17, this is given at 1.323 million gallons a day (mgd). Two pages later, however, potable water demand is said to be between .29 and .63 mgd. ("It is estimated that 35% of the 0.29-0.63 mgd potable water use for the project would become wastewater.") This mis-statement results in a gross under-estimate of the volume of wastewater – at most, it would be .22 mgd if the potable water use ranged from between .29 and .63 mgd. On the other hand, if the 1.323 mgd cited two pages earlier is used as the basis for calculating wastewater generation, the figure is .46 mgd (again assuming 35 percent ends up as wastewater).*

The DEIS states (Section 3.5), that "nutrient levels down-gradient of the Waikoloa Village golf course and Waikoloa WWTPs are lower than levels up-gradient." The Nance Assessment concludes that this lack of an identifiable impact from Waikoloa Village generally and its disposal of wastewater specifically on regional groundwater quality is "significant."

This conclusion assumes that there is nothing to impede the flow of groundwater in a straight downward makai course from the Waikoloa Village facilities. This assumption may not be justified, however. A recent study of the impacts of the Lahaina wastewater treatment plant done by the U.S. Geological Survey determined that geological features underground caused the injectate from the wastewater treatment plant injection wells to be diverted in a southerly direction, resulting in the impacts to coastal water being found further south than had been expected. (See: Scientific Investigations Report 2009-5253, A Multitracer Approach to Detecting Wastewater Plumes from Municipal Injection Wells in Nearshore Marine Waters at Kihei and Lahaina, Maui, Hawai`i, by Charles D. Hunt Jr., and Sarah N. Rosa, USGS, 2010.)

The limited testing done by Nance is hardly sufficient to justify claims that the impact of the nutrients that will be contributed to groundwater as a result of the proposed project will be nil or de minimis – or even beneficial. We share the concern of our neighbor, the Mauna Lani Resort (MLR), that wells drilled on `Aina Le`a land for irrigation purposes may cause increased salinity in the groundwater presently tapped by MLR. This could have dire consequences for MLR.

Furthermore, the potable water average usage per lot at Puako is 1500 gpd. Puako has 14,000 square foot lots for a total of 161 lots. The projected usage of 600 gpd for single family market homes at `Aina Le`a appears unrealistic.

Response: The review and approval of Water Reuse Plan (Plan) for a project that is planning to use reclaimed water as part of the irrigation system is a requirement of the State Department of Health (DOH). Additionally, the entire irrigation system must be approved by the State Department of Health in conformance with the requirement of the Hawaii Administrative Rules (HAR) Title 13, Chapter 62, Wastewater Treatment Systems.

Regarding your comment on the Project's potable water use, the figure on Page 3-19 referring to the Project's estimated potable water use as being between 0.29-0.63 mgd is an error. That will be changed in the Final EIS to the correct number of 1.322 mgd. Regarding your question pertaining to the statement in the Draft EIS from the Nance report regarding the lack of identifiable impacts to the groundwater down gradient of Waikoloa Village as being significant, we note that although Waikoloa Village has two wastewater treatment plants, these only receive wastewater from condominiums, apartments, commercial development, and a relatively few single family residences that were recently developed and in close proximity to the plants. The vast majority of the single-family residences in Waikoloa Village dispose of their wastewater individually in cesspools or in septic tanks with leach fields. Given this widespread disposal of wastewater across the entire area of Waikoloa Village, and the fact that nutrient levels in wells down-gradient of Waikoloa Village are similar to or even lower than in wells up-gradient of Waikoloa Village, Nance's statement would appear justified. The study that you cite pertains to the injectate from wastewater treatment plant injection wells as opposed to the widespread disposal of wastewater across the Waikoloa area that Nance was referring to and, therefore, would not appear applicable in this case.

Regarding your comment on the adequacy of the testing performed by Nance as a basis for the report findings, as shown in the Nance Report this was taken from multiple sampling of over a dozen wells in the area of the Project site, including those in the Mauna Lani Resort. This involved extensive testing over several years that provided an extensive data set from wells in and around the Project area and that, according to the water resource engineer, provides a statistically valid basis for the conclusions of the report.

The 600 GPD/unit potable water use rate for the Project is the actual average use rate for single-family residential units in Waikoloa Village. Since it is anticipated that the Project residences will be similar to those in Waikoloa Village, the 600 GPD/unit use rate would appear to be a reasonable standard to use.

*Comment: **Sewage Treatment**. Appendix D1 explains how the wastewater generation totals were calculated. The occupancy density of the townhomes (affordable units) is figured at 4 persons per unit. Given that the units have three or four bedrooms, it would seem as though the occupancy density estimate is too low. If so, the estimate of wastewater generated by the affordable units is also too low.*

The DEIS is silent as to the fate of the sewage sludge produced by the wastewater plant. Will it be landfilled? Composted?

The permanent treatment plant (for phases 2 and 3) is proposed to be on land in the state Agriculture District. Is this a permitted or permissible use?

Finally, there is no discussion of the impact, if any, of the unpermitted temporary wastewater system installed to serve the first two apartment buildings in the affordable-housing area. Will the use of this system (which needs to be described) or its removal have environmental impacts?

Regarding this leach field/temporary wastewater system, we find it disturbing and incredible in the Office of State Planning findings that "Petitioner did not have a permit from the Department of Health and received a field citation for the violation of law. Petitioner both violated the law and misrepresented the facts during the last [LUC] site visit." The EIS should explain this violation and confirm that no such illegal acts will happen in the future.

Response: The wastewater flow projections contained within the Phase I WWTP Basis of Design Report (Report), Appendix DI, were based on the rates that are higher than the standards used by the County of Honolulu for town home units. The occupancy rates are also higher than those found for townhomes of this size in the area and would appear to provide a conservative estimate as a basis of design. The dewatered sludge from the WWTP would be dried and either recycled with compost or shipped to an appropriate disposal facility in a manner meeting Department of Environmental Management and State Department of Health regulations and requirements. Because of the technology of the membrane bioreactor system that is planned for the Project, the dewatered sludge produced by the WWTP system will be minimal. The self-contained septic tank was intended as a temporary installation to serve two model units in one building for use by the Applicant and its contractor. The use of the system ceased as soon as the Applicant was notified by the DOH of the permit requirement. Failure to obtain a DOH permit before the use began was the result of a miscommunication the Applicant and its consultant and will not be repeated. The self-contained septic tank has since been removed with little or no environmental impacts.

Comment: ***Runoff.*** *The DEIS says that "drainage facilities will be designed for the 10 year or 50 year storm as required by the County." Which is it? The DEIS references several potential ways to mitigate runoff, but commits to none. An approved plan for storm water runoff should be prepared and evaluated before further construction is permitted. Also, a worst-case-scenario with storm water entering the near-shore reef ecosystem should be evaluated and mitigated.*

The SSFM International Consultant's Flood Mapping Section 3.6 states: "COH requires that any new development be protected from flooding resulting from a 100-year storm. The project storm drain system is designed for a 50-year storm. During a 100-year storm the Urban District storm drain system capacity would be exceeded. Major streams must be analyzed and the 100-year floodplain identified. The development must meet the conditions of Chapter 27, Flood Control. The development should not encroach on the 100-year floodplain. And, the development must be elevated above the 100-year base flood elevation." The EIS should include 100 Year Flood Mapping.

The DEIS anticipates the use of retention ponds and drywells to deal with storm runoff. However, recently the U.S. Geological Survey studied the impact of drywells in the County of Hawai`i. The study ("Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai`i," by Scot Izuka et al.) notes: "Some of the water that flows into the dry wells comes from runoff that would otherwise have flowed to the ocean through surface-drainage systems. Dry wells reroute this water from the surface system to the groundwater flow system. Most of the water still ultimately flows to the ocean, but it is subject to processes in the groundwater system and in most cases will discharge in a different location in the ocean than it would have if it remained in the surface system. Drywells also receive some water that would otherwise have infiltrated the ground over a broad area and inject this water at point locations. Because drywells are excavations through surface soil and into the underlying rock, they allow water to bypass the natural filtering properties of surface soil and vegetation and shorten the distance through which infiltrating water must percolate before reaching the water table. The water table is the top of the saturated aquifer; thus, any water or contaminants that reach the water table become part of the saturated groundwater system. Recently, concern has been raised that storm runoff entering the drywells may transport contaminants from roads and adjacent urbanized areas to groundwater and affect drinking-water sources and coastal ecological systems that are dependent on groundwater…" While the impact of runoff on drinking water sources in this area is not a concern, the potential impact of runoff into drywells on coastal water quality should be addressed.

Response: The County drainage standards require that certain on-site drainage facilities are to be designed for the 100-year storm and other on-site drainage facilities are to be designed for the 50-year storm. The on-site project drainage facilities would be designed as required by the Storm Drainage Standard, Department of Public Works, County of Hawaii (COH), October 1970.

Regarding your comment that an approved plan for storm water runoff should be prepared and evaluated before further construction is permitted, the Conceptual Master Plan Drainage Report will be supplemented by Final Design Reports for each development increment within the Project site. These reports are required to obtain permits from the County for clearing, grading construction of streets and storm-drains, and for issuance of a National Pollutant Discharge Elimination System (NPDES) permit (issued by the State Department of Health). These permits are required before site work can begin on the property. These permits also require best management practices to ensure runoff is contained during construction.

In regards to your comment that a worst-case scenario with storm water entering the near-shore reef ecosystem should be evaluated and mitigated, the potential for the Project's contribution to stormwater runoff was evaluated. As stated in Section 3.5 of the Draft EIS , the design intent of the Preliminary Master Drainage Plan is to utilize retention basins and drywells throughout the project so that there is no increase to the runoff leaving the site as a result of the development. In evaluating the potential impacts to water quality from surface runoff, the Nance Assessment concludes that given the high permeability of the ground surface and the relatively sparse nature of the planned development, this objective of the drainage plan seems achievable and there should be no

change in the quantity or impact to the water resources as a contribution of surface runoff leaving the site.

Regarding your statement that the project storm drain system is designed for a 50-year storm, and during a 100-year storm the Urban District storm drain system capacity would be exceeded, as noted above, the onsite drainage system will be designed so that there is no increase in the amount of runoff from the site. While the system is design for a 50-year storm, any excess flows would be directed to detention and retention areas within the project site, not to the existing drainage ways. Regarding the 100-year flood mapping, the two gulches located within the Urban District are not located in defined FEMA Flood Hazard Areas. Under these circumstances, the 100-year flood mapping would be completed during the Final Design Report for Project site.

In regards to your comment that the potential impact of runoff into drywells on coastal water quality should be addressed, we should note that the Project site is located over a mile and a half from the shore and at elevations ranging from approximately 100 to 700 feet above mean sea level (msl). To help put this in perspective, the Project engineers point to a USGS study entitled "Reconnaissance Assessment of the Potential for Roadside Dry Wells to Affect Water Quality on the Island of Hawai‘i" (Assessment Report) which states, in part:

> *"The County of Hawai‘i DPW operates 2,052 dry wells. Compiling an inventory of these dry wells and sorting it on the basis of presence or absence of urbanization in the drainage area, distance between the bottom of the dry well and the water table, and proximity to receiving waters helps identify the dry wells having greatest potential to affect the quality of receiving waters so that future studies or mitigation efforts can focus on a smaller number of dry wells.*
>
> *"Drainage areas of some DPW dry wells encompass high-intensity development, which could be a source of contaminants related to urban land use. Some dry wells in low-lying areas penetrate close to or through the water table, thus eliminating or substantially reducing opportunities for contaminant attenuation between the ground surface and water table.*
>
> *"Some DPW dry wells are 0.5 mile or less from the coast, placing them near coastal receiving waters. Some of these dry wells have drainage areas that include high-intensity development or penetrate to near the water table. On the basis of the analyses in this study, these dry wells have the highest potential to conduct contaminants from urban land use quickly to the water table and affect the quality of groundwater in coastal areas."*

The key parameters identified from the Assessment Report in determining a potential for impacting coastal waters included the distance to the shoreline and depth to the water table from the bottom of the lowest elevation drywell. The values for these parameters, as they apply to the Project site, are as follows:

Distance to shoreline (Source: Appendix E, Fig1-2 USGS Map)

- The Project site is approximately 1.5 miles from the shoreline at its closest point.
- The center of the Project site is approximately 2.3 miles from the shoreline.

Depth to the water table from bottom of lowest elevation drywell (Source: Appendix E, Fig 1-2 & 1-4, USGS Map & Appendix F, Fig 1 and Table 6.)

- The Ground elevation at north entrance road drywell location is approximately 160 feet (minimum elevation drywell).
- Maximum depth of drywell would be approximately 50 feet.
- In this case, the elevation of bottom of drywell would be approximately 110 feet.
- Ground water elevation at north entrance to project is approximately 2 feet to 3 feet.
- Depth from bottom of drywell to groundwater level would be approximately 107 feet.
- All other drywells on the project would be installed at or above the elevation of the north entrance road drywell.

Based on published information by the USGS, the distance of the Project drywells from the shoreline, plus the elevation difference between the bottom elevation of the Project drywells and the groundwater surface elevation, point to an insignificant potential impact from the Project-related drywells on ocean near-shore water quality.

Comment: ***Project District Zoning.*** *Several community benefits were made part of conditions of earlier development plans. These included Municipal Rate Golf – either a municipal golf course or equivalent number of plays; a 1,200-foot wide highway buffer; a pedestrian and/or bicycle path; and other benefits. We are very concerned that the proposed commercial area appears to encroach on the highway buffer. Keeping the Queen Kaahumanu Highway a scenic highway is critical. We do not want to see Project District Zoning used as a means to curtail any of the original community assessment benefits.*

Response: The potential visual impacts of the proposed development are addressed in Section 4.9 of the EIS, including the relative scale of the commercial buildings when viewed from the Highway. It should be noted that any development within the highway buffer area that differs from that allowed by the conditions of State Land Use Commission Decision and Order (LUC D&O) would require further approval from the State Land Use Commission, including a possible amendment to the applicable condition of the LUC D&O. Also, as a condition of the existing zoning for the Property, any use within the buffer area would require prior Plan Approval from the County Planning Director. We note that any concerns regarding the use of the Project District Zoning to curtail portions of the original community assessment benefits can be expressed at the many public hearings associated with the zoning approval process.

Comment: ***Time Shares****. We see little reference to time shares in the DEIS despite 750 time share units contemplated by the developer. The Puako Community has been*

opposed to time shares from day one. The South Kohala Community Development Plan prohibits time shares mauka of the Queen K highway.

Response: No timeshares are planned as part of the Project.

Comment: ***Facilities District Financing****. The reliance on Facilities District financing to provide funds for infrastructure seems farfetched. There are no homeowners or lot owners to assess. This scheme needs a detailed explanation as to how it will be implemented specifically for this project.*

The recent articles in the West Hawaii Today describing the failure of the developer to pay for work done on the affordable homes is very worrisome and leads us to believe the present "owners" may never get sufficient financing to complete the project. Furthermore, the high cost money-raising scheme in Singapore is another example of the weak financial position of the "owners."

Response: A more complete description of the Community Facilities District financing process will be included in Section 2.5.2 of the EIS. Your comments on the viability of the Project financing and the ability of the owners to develop the project are noted.

Comment: ***Effects on Neighboring Communities, Social Impacts.*** *The Draft EIS states that the development will be "an integral and contributing part of the Puako, Mauna Lani and Waikoloa communities." Yet, the plan does little to define and address the anticipated adverse impacts on these communities.*

For example, the DEIS does not address the impact of an estimated 5,780 new residents seeking recreational opportunities in the coastal resorts and communities of South Kohala. Provision of additional urban park space within the `Aina Le`a development will do nothing to satisfy increased demand for diverse nearshore recreation. The developer should be required to mitigate impacts to coastal recreation areas by providing additional infrastructure and services (e.g. parking, bathroom, enforcement, interpretive signs, etc.)

Response: As noted in the Draft EIS, the Applicant recognizes that there are indirect impacts to the coastal recreational and natural resources in the area. The nature of these indirect impacts to various coastal areas from the potential residents in any new development in the region, other than directed impacts from coastal developments, would be difficult to assess with any degree of accuracy. These are part of the general impacts of a growing population in the area, of which the proposed project would be a part. The potential impacts to the coastal resources from the areas growing population and the provision for facilities in areas of coastal access, not only at Puako but throughout the region, are part of a broader set of coastal management issues that are best addressed in a comprehensive fashion by the State and County. Section 4.12.1 of the Final EIS contains an expanded discussion of this issue. The Applicant is committed to participating with the State, County, community groups and other stakeholders in the area to address these concerns and will be working with local coastal management groups to further enhance the community outreach and marine resource protection efforts in the area.

Comment: ***Fugitive dust.*** *The DEIS suggests that coastal water quality will not be impacted by fugitive dust due to distance from the coastline. Residents of Puako and Mauna Lani have good reason to question this assumption, based on the history of dust problems from adjacent lands.*

Response: The statement regarding the potential impact to coastal areas from fugitive dust is based on the extensive distance between the coastline and the Project, which is over a mile and a half from the coast at its nearest point. The State air pollution control regulations require that there be no visible fugitive dust emissions at the property line and, while construction of portion of the Project infrastructure and affordable townhomes has been ongoing, neither the Applicant nor its contractor is aware of any violations of these permit requirements. We note that construction company has implemented ongoing measures for controlling fugitive dust during this construction phase including regular watering of active construction areas, stockpiles and roads, and covering open-bodied trucks bringing loose soil to or from the site.

Comment: ***Wildland Fire.*** *The coastal communities and resorts of South Kohala and the Waikoloa community have all been threatened on several occasions by wildfire. There is good reason to question the adequacy of fire protection strategies that are addressed so briefly in the DEIS.*

Response: Your concerns regarding the adequacy of the proposed measures to provide for the control of wildfires in the area are noted and any suggestions you might have to improve upon these plans would be welcomed.

Comment: ***Intersection Improvements.*** *Perhaps the most important community benefit which would indeed contribute to the communities of South Kohala and the public in general would be the signalization and full channelization of the intersection at the Mauna Lani Resort and Queen K Highway. This improvement needs to be done no matter what happens to this project and it must be done in Phase I.*

Response: As noted in Section 4.6 of the DEIS, the signalization of the Mauna Lani intersection is part of the planned Phase I improvements at the intersection with Queen Ka‘ahumanu Highway and Mauna Lani Drive.

Comment: ***SMS Consultants.*** *To the best of our knowledge no one interviewed members of the board of the PCA or community leaders at the Mauna Lani Resort Association to determine their opinions about the Villages at `Aina Le`a. Had the consultant taken the time to review the voluminous past testimony, petitions, etc., to the County Council and the Land Use Commission in matters dealing with the development over the years one would have discovered a pattern of opposition and distrust our coastal communities have expressed about the project time after time.*

Response: According to the SMS Research and Marketing Services, which prepared the Social Impact Assessment for the Project, members of the Mauna Lani and Puako Communities were interviewed as part of their interviews with community

representatives and public officials in the area. While these interviews took place some time ago, the Applicant recognizes that more could be done and is committed to developing a better dialogue with the Puako and Mauna Lani Communities.

Comment: ***Ordnance****. It is not clear from the DEIS how the risks associated with unexploded ordnance will be adequately mitigated.*

Response: The Applicant and its contractors are coordinating with the U. S. Army Corps of Engineers (USACE) on an ongoing basis in the USACE systematic survey of the Project area for the presence of Unexploded Ordinance (UXO) that may be present. As noted in Section 4.5 of the EIS, based on discussions with the USACE Military Munitions Response Program Manager, a contract was issued in the latter half of 2009 and the task of surveying the property is ongoing and will be phased so as to precede the phases of development.

Comment: ***Solid Waste****. The DEIS indicates that the Puako transfer station will be available for use by the additional 2,462 residential units in the new development. The Puako transfer station is already near its potential capacity for both residential and green waste, so this "plan" is unworkable.*

Response: The capacity limitation of the current solid waste transfer station at Puako will be noted in Section 4.11.3 of the Final EIS. In terms of the proposed mitigation measures aimed at minimizing the potential impact to the available solid waste management facilities in the area, the Applicant has committed to provide for curbside pick-up throughout the Project, which would include space for multiple bin pick-up for recycling purposes. A statement to this effect will be included in Section 4.11.3 of the Final EIS. We also note that the Applicant will also be preparing a Solid Waste Management Plan according the Department of Environmental Management's (DEM) Solid Waste Management Plan Guidelines and will submit it for the DEM approval. The goal of the Solid Waste Management Plan is to estimate and monitor solid waste generation within a development and the amount of additional energy used for solid waste disposal, and to promote and implement waste recycling and recycling programs within the development. It should also be noted that the Applicant will be making a fair-share contribution to the County, per the requirements of its zoning approval, to address the Project's impacts to the County's solid waste facilities and services in the area.

Comment: ***Alternatives*** *. The DEIS devotes only token consideration to viable project alternatives. At the very least, the option of " development at lower densities" should be seriously evaluated.*

Response: The alternatives presented in the Draft EIS represent a broad range of alternative development scenarios, including a development at lower densities. Alternative 5.4 specifically included an analysis of a lower density alternative to the proposed development, however, given the considerable community infrastructure planned as part of the Project, including expanding the County water system in the area, construction of a new wastewater treatment plant, highway intersection improvements, new roads and parks, and the provision of affordable housing, the lower density

alternative was found be an infeasible alternative. Nevertheless, the preferred alternative represented in the Draft EIS, in allowing for a more efficient use of the land and a development that would be more responsive to the site conditions, represents a lower overall density than the original master plan (Alternative 5.2) or a development that would follow the existing zoning (Alternative 5.3).

Comment: ***Consistency with Other Plans.*** *The DEIS references several State and County planning documents that stress the need to preserve and restore significant natural resources, including coastal waters. Yet, the DEIS does not adequately consider the potential impacts of this project on the very rich nearshore reef ecosystem in South Kohala.*

Response: As noted above, regarding your comment pertaining to the potential effects on neighboring communities, the potential indirect impacts of the Project to natural coastal resources, including coastal waters, is addressed in Section 7.2 of the Draft EIS where it is noted that there are indirect impacts to the coastal recreational and natural resources in the area as a result of the Project that are part of the general impacts from the growing population in the area of which the proposed Project would be a part. This potential impact of the growing population to area beaches and reefs will be expanded upon within Section 4.12.1, Recreation, within the Final EIS.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ʻĀina Leʻa Development, LLC
Steve Dunnington, DW ʻĀina Leʻa Development, LLC

LINDA LINGLE
Governor

JAMES R. AIONA, JR.
Lieutenant Governor

THEODORE E. LIU
Director

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

ORLANDO "DAN" DAVIDSON
Executive Officer

BERT K. SARUWATARI
Planner

SCOTT A.K. DERRICKSON, AICP
Planner

FRED A. TALON
Drafting Technician

RILEY K. HAKODA
Chief Clerk

July 7, 2010

Mr. James M. Leonard, AICP
J.M. Leonard Planning, LLC
1100 `Āinalako Road
Hilo, Hawai`i 96720

Dear Mr. Leonard:

Subject: LUC Docket No. A87-617 DW `Āina Le`a (Bridge `Āina Le`a)
Draft Environmental Impact Statement (DEIS)
The Villages of `Āina Le`a
Waikoloa, South Kohala, Island of Hawai`i
Tax Map Keys: (3) 6-8-001: 25, 36, 37 (por.), 38, 39 and 40 (por.), and
(3) 6-8-002: 19 (por.)

We have reviewed the subject DEIS for the proposed development and have the following comments:

In the Executive Summary (p. vii), it is stated "In February 2009, DW `Āina Le`a Development, LLC and RELCO Corp. purchased approximately 1,092 acres of the 3,000 acres." We presume that the 1,092 acres is the land in the State Urban District. The FEIS should provide definitive proof of ownership and control for the land in the State Urban District. In addition, the FEIS should identify and detail ownership interests (fractional or otherwise) held by Singapore investors.

Several of the development components discussed in the DEIS are subject to conditions imposed by the State Land Use Commission (LUC) in its original Decision and Order (dated January 7, 1989) and Amended Decisions and Orders (dated July 9, 1991 and November 25, 2005) in LUC Docket No. A87-617. In particular, conditions pertaining to affordable housing completion, wastewater treatment facilities, and required setbacks from the highway should be discussed and an explanation given as to how the actions described within the DEIS are or are not in compliance with these conditions.

1) **Phasing and Timetable for Completion of Affordable Housing.** The timeframe given for the completion of the affordable housing units is 2012 (DEIS p. 2-20,

235 SOUTH BERETANIA STREET ❁ SUITE 406 ❁ HONOLULU, HAWAI`I 96813 ❁ TEL (808) 587-3822 ❁ Fax (808) 587-3827❁ EMAIL: luc@dbedt.hawaii.gov
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Development Phasing and Timetable). Pursuant to LUC Condition 1b of the LUC's A87-617 Decision and Order (November 25, 2005), 385 affordable units are to be ready for occupancy in November 2010.

The information provided appears to be non-compliant with required LUC conditions. The Final EIS needs to address this issue by providing a more detailed schedule for the development of both the affordable housing component and total project showing compliance with LUC Condition 1b.

2) **Wastewater Treatment and Disposal.** The FEIS should discuss how the proposed method of wastewater treatment and disposal is consistent with Conditions 5 and 9 of the LUC's Decision and Order (dated January 7, 1989). Particularly, the "Eight (8) Conditions Applicable to This Golf Course Development", prepared by the State Department of Health dated April, 1990 (Version 3).

3) **Commercial Village Boundary.** The proposed setback for the commercial village is approximately 500 feet from Queen Ka'ahumanu Highway (pg. 2-11, Commercial Village and Mixed Use Center). The 500-foot setback does not comply with Condition 3 of the Decision and Order for LUC Docket A87-617 (dated January 7, 1989), which imposed a 1,200-foot setback from the highway. The FEIS should clarify how this will be addressed. Further, the FEIS should identify how the buffer area will be preserved in perpetuity as required under Condition 3 of the LUC's Decision and Order (dated January 7, 1989).

4) The FEIS should discuss conformance with the State land use district standards in Chapter 205, HRS.

We have no further comments to offer at this time. Thank you for the opportunity to comment on the subject DEIS.

Should you have any questions, please feel free to call me at 587-3822.

Sincerely,

ORLANDO DAVIDSON
Executive Officer

c: Office of Environmental Quality Control
Hawai`i County Planning Department
State Office of Planning
DW 'Āina Le'a Development, LLC

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Orlando Davidson, Executive Officer
State Land Use Commission
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, HI 96804

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Davidson:

Thank you for your letter of July 7, 2010 (attached) in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

Comment: In the Executive Summary (p. vii), it is stated "In February 2009, DW 'Aina Le'a Development, LLC and RELCO Corp. purchased approximately 1,092 acres of the 3,000 acres." We presume that the 1,092 acres is the land in the State Urban District. The FEIS should provide definitive proof of ownership and control for the land in the State Urban District. In addition, the FEIS should identify and detail ownership interests (fractional or otherwise) held by Singapore investors.

Response: The 1,092 acres purchased by DW 'Aina Le'a Development, LLC and RELCO Corp. (DW) are predominately those lands within the SLUC Urban District. A summary of the DW property, by TMK parcel, and the corresponding SLUC District classifications is found in Section 2, Table 1 of the Draft EIS. Evidence of ownership of these lands is provided with the Draft EIS, in the form of the Amended and Restated Purchase and Sale Agreement that is included as Appendix A. A description of the ownership interests in Parcel 36 by other investors will be included in Section 1.5 of the Final EIS.

*Comment**:** **Phasing and Timetable for Completion of Affordable Housing**. The timeframe given for completion of the affordable housing units is 2012 (DEIS p2-20, Development Phasing and Timetable). Pursuant to LUC Condition 1b of the LUC's A87-617 Decision and Order (November 25, 2005), 385 affordable units are to be ready for occupancy in November 2010.*

Response: The description and timing of the Phase 1 improvements found in Section 2.5.1 of the Draft EIS was intended to cover all of the Phase 1 improvements, including the 385 affordable housing units. As stated in Section 2.3.3 Affordable Housing Units, the Applicant was expecting to complete the first increment of 32 affordable townhouse units by March of 2010 and the full 385 units by November 2010 in compliance with the amended Condition 1 of the State Land Use Commission (SLUC) Decision and Order. The description of the Phase I improvements in Section 2.5.1 will be reworded so that it is clear that the 385 affordable units are planned to be completed by November 2010.

Comment: ***Wastewater Treatment and Disposal.*** *The FEIS should discuss how the proposed method of wastewater treatment and disposal is consistent with Conditions 5 and 9 of the LUC's Decision and Order (dated January 7, 1989). Particularly, the "Eight (8) Conditions Applicable to This Golf Course Development, prepared by the State Department of Health dated April, 1990 (Version 3).*

Response: While a discussion of the Project's current status and compliance with all conditions of approval would be beyond the scope of the EIS, as is noted in Section 4.11.2 of the Draft EIS, the method of wastewater treatment and disposal will be in compliance with State and County rules and regulations. Condition 5 of the LUC's Decision and Order (dated January 7, 1989) states:

> "5. Petitioner shall design, locate and construct a sewage treatment plant as may be required by the County of Hawaii and the State Department of Health so as to minimize adverse impacts on adjoining properties."

In this respect, the proposed sewerage treatment plant, as described in the EIS, is being located and planned with ample buffer areas so as to minimize potential adverse impacts on adjoining properties. The proposed location of the plant within the adjoining lands was selected with this objective in mind.

The "Eight (8) Conditions Applicable to This Golf Course Development (8 Conditions), prepared by the State Department of Health dated April, 1990 (Version 3) pertain to the establishment of a monitoring system for the Project golf course, which is aimed at minimizing the potential for chemicals used on the golf course from impacting the underlying groundwater. Condition 5 of the "8 Conditions" states that, should effluent reuse become the choice of wastewater disposal, the owner/developer shall adhere to a Wastewater Reuse Plan. This condition also provides general management responsibilities and recommendations for the Wastewater Reuse Plan. The Applicant has committed to adhering to the conditions of the SLUC Decision and Order, including adherence to the DOH's "8 Conditions." The requirement that the development of golf course must adhere to DOH's "8 Conditions" in the development and operation of the Project golf course will be noted within Section 3.5 of the Final EIS.

Comment: ***Commercial Village Boundary.*** *The proposed setback for the commercial village is approximately 500 feet from Queen Ka'ahumanu Highway (pg. 2-11,*

Commercial Village and Mixed Use Center). The 500-foot setback does not comply with Condition 3 of the Decision and Order for LUC Docket A87-617 (dated January 7, 1989), which imposed a 1,200-foot setback from the highway. The FEIS should clarify how this will be addressed. Further, the FEIS should identify how the buffer area will be preserved in perpetuity as required under condition 3 of the LUC's Decision and Order (dated January 7, 1989).

Response: The Conceptual Master Plan, shown as Figure 3 in Section 1.3 of the Draft EIS, is reflective of the Applicant's current plans for development, which has changed from those plans presented by Nansay during the time of their initial State Land Use boundary Amendment Petition. The proposed commercial uses indicated on the Conceptual Master Plan would be located in the State Land Use Urban District but, as you point out in your letter, would be within the 1,200-foot buffer area described in Condition 3 of the initial State Land Use Decision and Order (Docket No A87-617) and therefore, would require an amendment to Condition 3 of the LUC Decision and Order by the State Land Use Commission to be developed as shown. To help clarify this point, a further description of the additional approvals required for proposed commercial development within the buffer area, if developed as shown, along with the responsibilities for preservation of the buffer area in perpetuity, will be included within Section 6.9 of the FEIS.

*Comment: **State Land Use District Standards.** The FEIS should discuss conformance with the State Land Use District standards in Chapter 205, HRS.*

Response: A discussion of the Project's current State Land Use classifications, and more recent SLUC actions relating to the project allowing for the project to proceed with its Project District Zoning Application, is found in Section 6.4 of the Draft EIS. Section 6.4 will be expanded in the Final EIS to address the Project's conformance to the State Land Use District standards in Chapter 205, HRS.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ʻĀina Leʻa Development, LLC
Steve Dunnington, DW ʻĀina Leʻa Development, LLC

LINDA LINGLE
GOVERNOR

BRENNON T. MORIOKA
DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
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JIRO A. SUMADA

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

IN REPLY REFER TO:

STP 8.0155

July 7, 2010

Ms. Bobby Jean Leithead-Todd
Director
Planning Department
County of Hawaii
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720-3043

Dear Ms. Leithead-Todd:

Subject: The Villages of Aina Lea
Draft Environmental Impact Statement (DEIS)

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project's DEIS.

DOT understands that the proposed 1,092 acre project will include; 790 single-family homes sites, 1,047 multiple-famly units, 125 mixed use units and up to 500 affordable/workforce housing units. Also included are a 340,000 square feet commercial village, 80,000 square feet of mixed-use areas, one golf course, a golf lodge of up to 40 units, golf academy and clubhouse. Proposed access to the project is from the State's highway facility, Queen Kaahumanu Highway, and will be phased via two access points. The initial access will be at the project's intersection with Mauna Lani Resort, which will be fully channelized and signaled. The second access road to the north is proposed to provide a mauka-makai connection with the Waikoloa Vilage community at Hulu Street.

Given the location of the subject project and the proposed two access points to the Queen Kaahumanu Highway, State highway facilites will be impacted. Appropriate intersection improvements, traffic mitigation and consideration for regional transportation effects and plans will need to be addressed.

The DOT Highways Division is reviewing the DEIS and the Traffic Impact Analysis Report (TIAR) and will provide further and additional comments upon completion of its review.

DOT appreciates the opportunity to provide comments. If there are any questions, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 587-2356.

Very truly yours,

BRENNON T. MORIOKA, Ph.D., P.E.
Director of Transportation

c: Robert Wessels, DW Aina Lea Development, LLC
James M. Leonard, J M Leonard Planning, LLC

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Brennon T. Morioka, Ph.D., P.E.
Director of Transportation
Hawai‘i Department of Transportation
8669 Punchbowl Street
Honolulu, HI 96813-5097

SUBJECT: THE VILLAGES OF ‘ĀINA LE‘A DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Morioka:

Thank you for your letter of July 7, 2010 (attached) in which you provide your comments to the Villages of ‘Āina Le‘a Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ‘Āina Le‘a Development, LLC, we are responding to your comments.

Comment: Given the location of the subject project and the proposed two access points to the Queen Kaahumanu Highway, State highway facilities will be impacted. Appropriate intersection improvements, traffic mitigation and consideration for regional transportation effects and plans will need to be addressed. The DOT Highways Division is reviewing the DEIS and the Traffic Impact Analysis Report (TIAR) and will provide further and additional comments upon completion of its review.

Response: We understand that the DOT Highways Division is reviewing the DEIS and the Traffic Impact Analysis Report (TIAR) and look forward to receipt of any comments that you might have upon completion of your review. Unfortunately, any comments to the Draft EIS received after the formal review deadline of July 7, 2010 will not be reflected within the Final EIS. We also understand that preliminary engineering plans for the Highway intersection improvements at the Mauna Lani Drive/‘Āina Le‘a Project intersection, as generally described in Section 4.6 of the Draft EIS and recommended by the TIAR, are currently with your Department for preliminary review.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

G E O R G E H. R O B E R T S O N

July 7, 2010

Mr. Robert Wessels, Managing Partner, DW Aina Le'a Development, LLC
Ms. Bobby Jean Leithead Todd, Planning Director, Hawaii County Planning Department
Mr. J.M. Leonard, Consultant, J.M. Leonard Planning, LLC

Re: DEIS Comments: The Villages of Aina Lea

Dear Mr. Wessels, Ms. Leithead Todd, and Mr. Leonard:

I would like to know what the caption means in the "Villages of Aina Lea" website "Progress Video" where in the second photo frame it says:

"No Construction visible from the highway"

Construction sure looks visible from the highway to me.

What will happen to the promised 1200 foot highway buffer strip running for 2.3 miles (SLUC condition #3, Nansay Hawaii letter to Harold Masumoto dated March 2, 1993)? One of the DEIS maps and the DEIS text indicates that the commercial area will reach within 500 feet of the highway. This is unacceptable.

Aloha,

George H. Robertson

P.O. Box 44490 Kawaihae, Hawaii 96743 Telephone/Fax 808 882-7598

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

George H. Robertson
P.O. Box 44490
Kawaihae, HI 96743

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Robertson:

Thank you for your letter dated July 7, 2010 (attached) in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

Comment: I would like to know what the caption means in the "Villages of Aina Lea" website "Progress Video" where in the second photo frame it says: "No Construction visible from the highway" Construction sure looks visible from the highway to me.

Response: First, although the comment is not pertinent to the Draft EIS being reviewed, we should note that the particular video clip on the Villages of ʻĀina Leʻa Website that you refer to was taken earlier in the construction process and the caption "No Construction Visible from the Highway" was included in response to an article that appeared in the West Hawaii Today around that same time in which the reporter noted that they could see no construction from the Highway. The construction that was ongoing at the time was primarily focused on construction of the access road, utilities, and building pads and had not progressed as far as vertical construction. Portions of the 32 townhouse units that have since been completed and the additional buildings that are in various states of construction are visible from Queen Kaʻahumanu Highway

Comment: What will happen to the promised 1,200 foot highway buffer strip running for 2.3 miles (SLUC condition #3, Nansay Hawaii letter to Harold Masumoto dated March 2, 1993)? One of the DEIS maps and the DEIS text indicates that the commercial area will reach within 500 feet of the highway. This is unacceptable.

Response: The Conceptual Master Plan shown as Figure 3 in Section 1.3 of the Draft EIS is reflective of the Applicant's current plans for development, which has changed from those plans presented by Nansay during the time of their initial State Land Use boundary Amendment Petition. The proposed commercial uses indicated on the Conceptual Master Plan would be located in the State Land Use Urban District but, as you point out in your letter, such uses would be within the 1,200-foot buffer area described in Condition 3 of the initial State Land Use Decision and Order (Docket No A87-617). Condition 3 states, in part:

> "The buffer area shall be comprised of approximately two hundred twenty-five (225) acres and shall extend inland from the Queen Kaahumanu Highway right—of-way to a depth of approximately one thousand two hundred (1,200) feet. The depth of the buffer area may vary and the actual boundary lines of the buffer area may meander to a lesser or greater depth to accommodate the Project's development plan and preservation of natural open space and scenic views. Exceptions shall be made for infrastructure improvements or corridors that may be necessary to service the developed portions of the Property. The approximate boundaries of the natural open space buffer area are reflected in Petitioner's Exhibit LL, which is attached hereto and incorporated herein as Exhibit B."

As noted in Condition 3, some variation to the boundary of the Buffer Area had been envisioned to accommodate the Project's development plan and preserve the open space and scenic views, and exceptions would be made for infrastructure improvements or corridors that may be necessary to serve the development. The notion of certain uses extending into the 1,200-foot buffer area is reflected in the County Zoning Ordinance (Ordinance No. 96-153) affecting the property. Condition D of Ordinance No. 96-153 states:

> "The applicant shall obtain plan approval from the Planning Director for all uses within 1,200 feet of Queen Kaahumanu Highway right of way."

While the above condition allows for the depth of the buffer area to vary to accommodate the Project's development plan, any development within the buffer area that substantially deviates from that presented in the initial Decision and Order would require prior approval of the development plan and, depending on the nature of the improvements, possible amendment to Condition 3 of the LUC Decision and Order by the State Land Use Commission, as well as Plan Approval by the Planning Director. To help clarify this point, a further description the additional approvals required for proposed commercial development within the buffer area will be included within Section 6.9 of the FEIS.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

J M Leonard Planning, LLC 1100 Ainalako Road Hilo Hawaii 96720

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GOVERNOR
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DIRECTOR
ABBEY SETH MAYER
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Ref. No. P-13052

July 7, 2010

Mr. Robert Wessels
DW 'Āina Le'a Development, LLC
68-4747 Queen Ka'ahumanu Highway
Kamuela, Hawai'i 96743

Ms. Bobbie Jean Leithead-Todd
Planning Department
County of Hawai'i
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

Mr. James Leonard, AICP
JM Leonard Planning, LLC
1100 Ainalako Road
Hilo, Hawai'i 96720

Dear Sirs and Madam:

Subject: The Villages of 'Āina Le'a, LUC Docket No. A87-617
Draft Environmental Impact Statement
TMK(s) (3) 6-8-001: 025, 036, 037 (por.), 038, 39, and 40 (por.), and
(3) 6-8-002: 019 (por.)
South Kohala, Hawai'i

The Office of Planning (OP) has reviewed the Draft Environmental Impact Statement (DEIS) for the above referenced project for a planned residential golf community and supporting facilities and infrastructure on approximately 1,128 acres of land, of which 1,060 acres was redistricted to the State Urban Land Use District by the State Land Use Commission (LUC) in 1989 (LUC Docket No. A87-617).

OP comments and concerns follow. OP's primary concern is that the DEIS does not adequately assess the cumulative and secondary impacts of the project because it lacks a comprehensive analysis of the additional impacts of development proposed for the adjacent lands still owned by Bridge 'Āina Le'a, LLC (Bridge), that are still part of the larger Project site.

1. **Change in Scope of DEIS.** The original scope as set forth in the November 2007 Environmental Impact Statement Preparation Notice was for the Villages of Aina Lea, covering approximately 3,000 acres of land. The current DEIS covers only a portion of the Villages of Aina Lea, over approximately 1,128 acres. The DEIS states it is not intended to support development of the approximately 863 residential agricultural lots, golf courses, and related infrastructure on the remaining lands of the original 3,000-acre project. However, the two projects are inextricably linked through a Joint Development Agreement between Bridge and DW 'Āina Le'a (Applicant) and there is a reliance on common infrastructure, such as primary roads and access points, potable and non-potable water systems, drainage and stormwater infrastructure, schools, utilities, etc.

   The failure to include the proposed Bridge development in assessing the potential impacts and mitigation required for infrastructure and facilities that will serve the entire property renders the DEIS inadequate. Planned development on the adjacent lands is not incorporated in much of the technical studies prepared despite having County entitlements for residential lots and golf courses. For example, the two primary roads and access points proposed for the Applicant's project are also the primary roads and access points for the adjacent Bridge lands, thus, the Traffic Impact Analysis Report (TIAR) should include trips that would be generated on Bridge lands under full build out. The assessment of cumulative and secondary impacts is inadequate without a comprehensive analysis of potential impacts of development of the entire Project site, including the Bridge lands.

   Section 11-200-7, Hawaii Administrative Rules provides that "[a] group of actions proposed by an agency or an applicant shall be treated as a single action when: (A) The component actions are phases or increments of a larger total undertaking; [or] (B) An individual project is a necessary precedent for a larger project."

   The Villages of Aina Lea is located over 3,000 acres, not just the 1,128 acres covered by the DEIS. The development of the remaining 1,872 acres is dependent upon the infrastructure described in the DEIS. Accordingly, the DEIS' failure to cover the entire 3,000 acres is a fatal flaw that must be corrected. See e.g., Sierra Club v. Department of Transportation, 115 Hawaii 299, 336-338 (Hawaii 2007). Given the enormity of this failure and the amount of new information that must be added to the FEIS, we believe a new DEIS should be drafted and the entire notification period should start again.

2. **Timetable for Completion of Affordable Housing.** The timeframe given for the completion of the affordable housing units is 2012. OP notes that under Condition 1b of the LUC's A87-617 Decision and Order, 385 affordable units are to be ready for occupancy in November 2010. The DEIS fails to discuss the additional Land Use Commission approval needed to amend the existing Decision and Order, and the social impact of the resulting loss of public confidence in the land use entitlement process, and in government in general. See p. xiii of the DEIS. LUC approval of an amended Decision and Order is not guaranteed, . Accordingly, the DEIS also needs to discuss what would be needed, along with any additional possible impacts of accelerated development, in order to comply with the existing November 17, 2010 deadline.

3. **Commercial Village Boundary—Conformance with LUC Conditions, County Plan Designations.** The proposed setback for the commercial village is approximately 500 feet from Queen Ka'ahumanu Highway (pg. 2-11), and the makai boundary does not conform to the General Plan land use designation boundary in Figure 5, *Hawaii County General Plan*. The 500-foot setback does not comply with Condition 3 of the Decision and Order for LUC Docket A87-617, which imposed a 1,200-foot setback from the highway. The FEIS should clarify how this will be resolved and whether a General Plan land use map amendment would be required for the reduced setback. LUC approval of an amended Decision and Order is not guaranteed. Accordingly, the DEIS also needs to discuss what alternatives exist to comply with the existing Decision and Order, and if the amended Decision and Order was issued, what social impacts would result from the loss of public trust in the integrity of the state land use entitlement process. The FEIS should also identify how the buffer area will be preserved in perpetuity as required under Condition 3 of the LUC's Decision and Order.

4. **Development Phasing and Timetable.** The information provided does not provide a clear picture of the timeframe and phases of development. The FEIS should be supplemented with estimated timeframes for each phase and a map showing the proposed phases with respect to the conceptual master plan.

5. **Impact on Queen Ka'ahumanu Highway.** The FEIS should discuss any State Department of Transportation's (DOT) plans to increase capacity along the affected sections of Queen Ka'ahumanu Highway, as well as concerns and recommendations raised by DOT with respect to the proposed project improvements at the Mauna Lani and northern/emergency evacuation road access points. As stated above, the traffic impact analysis should include the full development of the 3,000 acres of the Villages of Aina Lea.

6. **Timeframe for Completion of the Northern/Emergency Evacuation Road.** The timeframe for completion of the proposed mauka-makai road is unclear. Various sections of the DEIS and the TIAR state the road will be built in Phase I; other sections link the completion of the road with financing through the Community Facilities District (CFD) bonds. The FEIS needs to clarify when the mauka-makai road is to be constructed and completed. Timing in relation to project build-out is essential to understand the traffic impacts of the development.

7. **Community Facilities District.** Additional information on the CFD, project components that will use CFD bond financing, and the current status and schedule for CFD bond financing is needed in the FEIS.

8. **Energy and Electrical Demand.** The FEIS must include a more detailed description of the energy conservation and efficiency and renewable technologies that will be incorporated into the project. Commercial energy demand should be included in the FEIS' estimates of electrical energy use. In addition to a discussion of the impacts of increased carbon emissions and continued reliance upon fossil fuels as a primary or secondary result of this project, the FEIS must examine the mitigation alternatives which can reduce fossil fuel use. Section 11-200-17(M), HAR, states:

> "M. The draft EIS shall consider mitigation measures proposed to avoid, minimize, rectify, or reduce impact, including provision for compensation for losses of cultural, community, historical, archaeological, fish and wildlife resources, including the acquisition of land, waters, and interests therein. Description of any mitigation measures included in the action plan to reduce significant, unavoidable, adverse impacts to insignificant levels, and the basis for considering these levels acceptable shall be included. Where a particular mitigation measure has been chosen from among several alternatives, the measures shall be discussed and reasons given for the choice made. Included, where possible and appropriate, should be specific reference to the timing of each step proposed to be taken in the mitigation process, what performance bonds, if any, may be posted, and what other provisions are proposed to assure that the mitigation measures will in fact be taken."

Accordingly, even if the mitigation alternatives are determined to be too expensive or inappropriate for this site, the analysis must be conducted to allow the appropriate decision-makers to make an informed decision. Although the

DEIS generally mentions sustainable guidelines or principles, it does not conduct the analysis to determine how these guidelines or principles are implemented, specifically for this project. So, there is no adequate description of the mitigation measures included in the action plan to reduce impacts to insignificant levels, the basis for considering these levels acceptable, or a discussion on why certain alternatives were chosen over other alternatives.

9. **Invertebrate Survey.** The DEIS does not include information on invertebrate species on or in proximity to the project site or in any lava tubes or caves on the property that may be impacted by project development. The FEIS should provide information on whether any species of concern are present at the property or have been identified as being present in the region, such as the blind cave spider, and propose mitigation efforts if discovered even inadvertently.

10. **Archaeological and Historic Resources.** The FEIS Volume I should include a map that displays the general location and alignment of the historic cattle trail with respect to the project's conceptual master plan, and set forth the process that will be followed if remains are discovered during development.

11. **Drainage and Stormwater Management.** Volume I of the FEIS should include a map that displays and labels the major drainage systems, streams, and gulches referred to in Volume I, including the approximate location of stream or gulch crossings. The FEIS should also clarify whether the on-site drainage facilities will be designed to the 10-year or 50-year storm.

    The FEIS should discuss the relationship of both surface and subsurface runoff or stormwater flows from or across the property to the Puakō flood plain, designated Zone A in the Flood Insurance Rate Maps. If runoff from or through the property contributes to discharges to the Puakō flood plain, then it is not clear why stormwater flows and drainage for the project were not evaluated with respect to 100-year flood events.

    The FEIS should examine the use of Low Impact Development (LID) techniques to manage the quantity and quality of stormwater and runoff on and offsite. The absence of any analysis renders the DEIS incomplete.

12. **Water.** Please clarify which land use the golf lodge is included in with respect to potable water demand in Table 8. Is the potable water demand for parks/open space for fixtures and drinking water or irrigation or both? Furthermore, the DEIS should include a discussion as to how the additional water use will impact the salinity levels of the water leaking into the coastal waters, and whether there

are any sensitive environmental locations that may be affected, such as anchialine ponds.

13. **Wastewater Treatment and Disposal.** Please clarify whether injection wells will or will not be used in conjunction with the wastewater treatment plant. The FEIS Volume I should identify how the Applicant plans to dispose of wastewater sludge since it can't be disposed of at Kealakehe Wastewater Treatment Plant. Although the re-use of sewage effluent does result in the conservation of water, the DEIS should also include a more in-depth discussion on the impact of the higher nutrient loads leaking into the near shore waters from the Project site, and the possible usefulness of additional monitoring wells.

14. **Solid Waste.** The County's Department of Environmental Management, Solid Waste Division commented that the Puakō transfer station is not sized for the project's residential garbage, and that because of the project's size, the Applicant should institute a garbage collection and recycling program to serve the planned development. This should be reflected in the body of the FEIS. Reference on page 4-26 to individual households taking garbage to the transfer station should be deleted. The DEIS also includes only a passing reference to the preparation of a solid waste management plan review for the Department of Public Works, and the inclusion of an educational component for residents. It fails to include any actual analysis on alternatives to reduce solid waste disposal. The DEIS's focuses upon the availability of landfill space, rather than the potential to reduce the need for landfill space.

15. **Residential Component.** Passing reference is made to marketing of the project to the second home market. Please provide a clearer description of the project's targeted market groups, the types of residential products envisioned for the project, and the expected price ranges for the different product types.

    The FEIS should also describe the workforce housing referenced in the DEIS, the nature of the partnerships the Applicant is seeking to provide workforce housing, and how the workforce housing units will be distributed among the different housing types.

16. **School and Community Facilities.** The Applicant proposes to provide sites on Agricultural District lands owned by Bridge for a public school site, regional community center, and an active park. It would be helpful to the user to map the general location of these sites with respect to the project's conceptual master plan.

    The FEIS should also note that a district boundary amendment or a State Special Permit would be required for a school or community center that is proposed for

Agricultural District lands. The Department of Education (DOE) should be consulted, and their comments incorporated in the FEIS, as to whether they would accept a school site that is classified Agricultural. It is probable that the project will be subject to DOE's impact fee authority. The body of the FEIS should state DOE's position regarding the impacts and mitigation required for the project. The DEIS also fails to discuss whether additional Land Use Commission approval will be sought to site the school on agricultural land, contrary to the original representations before the LUC and the existing Decision and Order, and also fails to discuss the resulting loss of public confidence in the land uses entitlement processes. See p. xiii of the DEIS. The FEIS should also include an analysis of the school on-site as an alternative proposal in case the LUC does not amend the Decision and Order.

The DEIS also proposes that the ten-acre community park will be enlarged to sixteen acres, but built after Phase I is completed, contrary to existing county requirements. The FEIS should discuss the social and community impacts on the affordable housing units if the construction of the sixteen acre park is delayed.

Comments on Sections 5, 6, and 7

17. **Section 5, Alternatives**, does not provide an alternative conceptual development plan to the original or the proposed project, i.e., an alternative to a residential golf community. The preferred alternative and Alternatives 5.3 and 5.4 represent variants of the original golf community proposal of Alternative 5.2.

18. **Section 6.2** does not include a discussion of the State Functional Plans, Chapter 226, HRS.

19. **Section 6.4** should discuss conformance with the State land use district standards in Chapter 205, HRS.

20. **Section 6.6**, the discussion on page 6-16 following General Policy 5 is not consistent with statements made elsewhere that the long-term impact of planned development on groundwater resources in the mauka-makai corridor is problematic, and will require a coordinated strategy to assure resource protection. The text should be modified to reflect this.

21. **Section 7.1**, Foreclosure of future options. The residential golf community model forecloses the option of a more compact, mixed use village that has a smaller footprint and better integration of different land uses within a community or regional center, such as is contemplated in the transit oriented development (TOD) nodes that are to guide and shape growth in the Kona Community

Development Plan area. The FEIS should include the consideration of a mixed-use village as an alternative.

22. **Section 7.2**, Cumulative and Secondary Impacts. The project as designed continues the region's reliance on the visitor industry to drive economic development and job opportunities.

23. **Section 7.4**, paragraph 1, page 7-5, OP recommends deletion of "minimal" in the sentence discussing the loss of natural open space and the impacts on existing viewsheds. While the profile of the planned development may be low and landscaped, the project will fill a broad swath of land with structures and manmade landscaping, which will be much more evident at night.

24. **Section 7.4**, Project development will also harden the landscape, increasing impermeable area and contributing to urban heat island effects. The DEIS must analyze these impacts, and what types of mitigation efforts can be made.

Other Comments

25. As a precautionary measure, OP recommends the FEIS reflect a stronger commitment to establishing and preserving the 500-foot buffer area for the red 'ilima and the preservation of the identified burial site at the outset of the project. This will ensure that encroachment on these sensitive resource areas is prevented during the field and construction phases of the project and its support facilities.

26. OP notes that the establishment of essentially two commercial/service centers in the conceptual master plan, one within the project and one on the edge of the project near the highway, will result in more dispersed traffic patterns, greater reliance on motorized vehicles to access goods and services, and lower the potential for the mixed use area to really function as the "heart" of the community.

27. The DEIS contemplates several violations of the Land Use Commission's Decision and Order. The DEIS needs to fully and complete list and describe all past and contemplated future violations of the LUC conditions and representations made before the LUC, and must discuss the social impacts of the erosion of public trust in land use regulatory processes, and in government in general, should the LUC allow these violations through either amendments to its Decision and Order or through non-enforcement.

28. Table 1 describes the affordable housing units as being built upon TMK 6-8-001:36. But Figure 4 appears to place the affordable units on a separate TMK

parcel, possibly TMK 6-8-001:39. The FEIS needs to include a photograph of the area with a TMK overlay to demonstrate upon what parcel the affordable units are being built.

Clarifications/Corrections for FEIS

29. Purchase years for the property appear to be inconsistent. Please correct or add language that clarifies the different years cited (e.g., pp. vii and 1-1).

30. On page 3-19, a much lower figure for potable water use is used. Please clarify.

31. It would aid the user if the viewpoint location and direction were displayed to assist the user in orienting themselves to the simulated views in Figure 15.

32. Please use consistent terms for the Waikoloa Wastewater Treatment Plant.

33. References in the DEIS and Appendix P of the use of State tax revenues generated by project construction and buildout to offset the cost of fire, police, and emergency protective services should be revised, since it is typically County tax revenues that pay for these services.

34. Please replace the definition of the Coastal Zone Management (CZM) area on page 6-4 with the following definition provided in Section 205A-1, Hawai'i Revised Statutes (HRS): "...all lands of the State and the area extending seaward from the shoreline to the limit of the State's police power and management authority, including the United States territorial sea."

35. Tables 8-10 of the TIAR uses 340 units for trip generation for affordable housing for 2012. The number of units should be 385. Please correct the inconsistency or explain why the lower number was used.

The Office of Planning appreciates the opportunity to comment on the DEIS. If you have any questions, please call the Land Use Division at (808) 587-2846.

Sincerely,

Abbey Seth Mayer
Director

c: Mr. Orlando Davidson, LUC

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Abby Seth Mayer, Director
Office of Planning
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, HI 96804

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Mayer:

Thank you for your letter of July 7, 2010 (attached) in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

General Comment: OP's primary concern is that the DEIS does not adequately assess the cumulative and secondary impacts of the project because it lacks a comprehensive analysis of the additional impacts of development proposed for the adjacent lands still owned by Bridge 'Aina Le'a, LLC (Bridge), that are still part of the larger Project site.

Response: The potenial development of the adjoining lands has been into account in assesssing the potential cumulative impacts of the development. For instance, the Assessment of Potential Impact on Water Resources, perpared by Tom Nance Water Resource Engineering, included the potenial uses and impacts to the water resources from the Project combined with the development of the adjacent Bridge ʻAina Leʻa, LLC (Bridge) lands. Existing and projected water use from all know water well developments in the region were also taken into account in projecting the cummulative impacts on the water resources in the area. Additionally, the potential traffic impacts analyzed in theTraffic Impact Analysis Report (TIAR), prepared by SSFM International takes into account not only the projected traffic to be generated by development of nearby properties, but also all known entitled projects that might be developed in the general Waikoloa Village/Mauna Lani region. The TIAR notes that research with the landowners, as well as the County of Hawaii, verified that the owners of the adjacent land

parcels currently have no definite development schedules, however, the TIAR analysis assumes that the adjacent land parcels are to be developed by the year 2020, the year the Villages of ʻĀina Leʻa is scheduled for full build-out. The projected traffic volumes contained in the TIAR Report also served as a basis for the both the air and noise quality impact analysis that is contained in the EIS. In this sense, analysis of Project-related impacts has taken into account development of the adjacent lands to the degree that is practicable. The TIAR, however, incorrectly assumed that, with the sale of the predominately Urban lands to DW ʻĀina Leʻa Development, LLC (DWA), the Project as described in the Draft EIS encompassed the complete scope of development for the full 3,000 acres, including the surrounding Bridge lands. The TIAR Report has since been updated to account for the potential development of the surrounding Bridge lands. It should be noted that the conclusions and recommendatons for traffic mitigation measures for the Project remain the same with this information included and re-analysis of the traffic impacts. A copy of the updated TIAR Report is included as Appendix M in the Final EIS and will be forwarded to the State Department of Transportation for their review with the construction plans for the Project's Queen Kaʻamanu Highway improvements.

Comment: 1. ***Change in Scope of DEIS****. The original scope as set forth in the November 2007 Environmental Impact Statement Preparation Notice was for the Villages of Aina Lea, covering approximately 3,000 acres of land. The current DEIS covers only a portion of the Villages of Aina Lea, over approximately 1,128 acres. The DEIS states it is not intended to support development of the approximately 863 residential agricultural lots, golf courses, and related infrastructure on the remaining lands of the original 3,000-acre project. However, the two projects are inextricably linked through a Joint Development Agreement between Bridge and DW 'Aina Le'a (Applicant) and there is a reliance on common infrastructure, such as primary roads and access points, potable and non-potable water systems, drainage and storm water infrastructure, schools, utilities, etc.*

Response: The proposed development of the Villages of ʻĀina Leʻa and development of the remaining lands of the original 3,000 acres are not "inextricably linked," as you suggest. The Joint Development Agreement between Bridge ʻĀina Leʻa and DW ʻĀina Leʻa Development, LLC (DW) allows for DW to cross Bridge lands and further allows Bridge to add capital to the wastewater treatment plant and/or the water wells to have them expanded at their cost for future development. They are not involved in the development of the DW's Urban lands, nor does DW have any say in the timing or nature of development of the Bridge's lands. Further, the potable and non-potable water systems, drainage and storm water infrastructure, and utilities are being designed solely for the planned Villages of ʻĀina Leʻa development. The fact that future development of adjacent lands might benefit from the access and regional utility improvements, as well as the public facilities that might be developed for the Project, does not imply that development of the properties are linked. It could be said that all nearby properties could derive some benefit from some aspect of the planned improvements to the regional infrastructure that would be implemented as part of the Villages of ʻĀina Leʻa development.

Comment: The failure to include the proposed Bridge development in assessing the potential impacts and mitigation required for infrastructure and facilities that will serve the entire property renders the DEIS inadequate. Planned development on the adjacent lands is not incorporated in much of the technical studies prepared despite having County entitlements for residential lots and golf courses. For example, the two primary roads and access points proposed for the Applicant's project are also the primary roads and access points for the adjacent Bridge lands, thus, the Traffic Impact Analysis Report (TIAR) should include trips that would be generated on Bridge lands under full build out. The assessment of cumulative and secondary impacts is inadequate without a comprehensive analysis of potential impacts of development of the entire Project site, including the Bridge lands.

Response: As noted above in response to your initial comment with regards to the cumulative and secondary impacts, the projected traffic generation from development in the area of the Project, as well as the potential development of the lands in the Waikoloa/Mauna Lani region, were taken into account in assessing the projected traffic volumes and necessary traffic-related improvements for this Project. The TIAR has been updated to include the trips that would be potentially generated by the potential development of the Bridge lands.

Comment: Section 11-200-7, Hawaii Administrative Rules provides that "[a] group of actions proposed by an agency or an applicant shall be treated as a single action when: (A) The component actions are phases or increments of a larger total undertaking; [or] (B) An individual project is a necessary precedent for a larger project."

The Villages of Aina Lea is located over 3,000 acres, not just the 1,128 acres covered by the DElS. The development of the remaining 1,872 acres is dependent upon the infrastructure described in the DElS. Accordingly, the DElS' failure to cover the entire 3,000 acres is a fatal flaw that must be corrected. See e.g., Sierra Club v. Department of Transportation, 115 Hawaii 299,336-338 (Hawaii 2007). Given the enormity of this failure and the amount of new information that must be added to the FEIS, we believe a new DEIS should be drafted and the entire notification period should start again.

Response: In reference to compliance with Section 11-200-7 (1) HAR, the Project described in the Draft EIS is not part of a larger total undertaking and all components of the proposed Project are considered and addressed in the EIS, and is, therefore compliant with this Section. DW's entire project is to develop the approximately 1,128-acre Project, as described in the Draft EIS. There will be no later phase by DW to develop the balance of the agriculturally zoned lands. DW also has no say as to the schedule or plans for their development of the remaining 3,000 acres that make up the balance of the Bridge lands. If and when Bridge proceeds with development of its lands, it will need to address the infrastructure requirements for its planned development at that time, as well as any additionals regulatory requirments, including compliance with Chapter 343, HRS.

Comment: 2. ***Timetable for Completion of Affordable Housing****. The timeframe given for the completion of the affordable housing units is 2012. OP notes that under Condition 1b of the LUC's A87-617 Decision and Order, 385 affordable units are to be ready for occupancy in November 2010. The DEIS fails to discuss the additional Land Use Commission approval needed to amend the existing Decision and Order, and the social impact of the resulting loss of public confidence in the land use entitlement process, and in government in general. See p. xiii of the" DEIS. LUC approval of an amended Decision and Order is not guaranteed. Accordingly, the DEIS also needs to discuss what would be needed, along with any additional possible impacts of accelerated development, in order to comply with the existing November 17,2010 deadline.*

Response: As stated in Section 2.3.3, Affordable Housing Units, the Applicant planned to complete the first increment of 32 affordable townhouse units by March of 2010 and the full 385 units by November 2010 in compliance with the amended Condition 1 of the State Land Use Commission (SLUC) Decision and Order. The description and timing of the Phase 1 improvements found in Section 2.5.1 of the Draft EIS, which refers to the 2012 completion date was intended to cover all of the Phase 1 improvements, which the affordable housing units are a part of. The description of the Phase I improvements in Section 2.5.1 will be reworded so that it is clear that the 385 affordable units, which are part of the Phase I improvements and are scheduled to be constructed by November 2010.

We note that although DW has completed construction of the first 32 affordable units, delays in the completion of the Project EIS has postponed the submittal of applications to the State and County to permit construction of the planned wastewater treatment plant and obtain construction plan approval for the required Highway intersection improvements. Since completion of key components of Phase 1 depends on the acceptance of the final EIS, DW is reviewing potential modifications to various components of the Project, including a possible request to the Land Use Commission (LUC) for a modification to the affordable housing condition imposed by the LUC so that DW can complete the minimum 385 affordable housing units and make those available for purchase by qualified families. The decision as to whether to allow such modifications and the conditions under which such modification would be allowed, however, is that of the LUC. DW will also request that the LUC allow such terms that will improve the prospects for Hawaii residents who are within the priority group of first time home buyers to obtain the three and four bedroom units. A discussion of the additional land use approvals required, including a request for potential modifications to the conditions imposed by the SLUC, will be included within Section 6.4 of the Final EIS.

Comment: 3. ***Commercial Village Boundary-Conformance with LUC Conditions, County Plan Designation****. The proposed setback for the commercial village is approximately 500 feet from Queen Ka'ahumanu Highway (pg. 2-11), and the makai boundary does not conform to the General Plan land use designation boundary in Figure 5, Hawaii County General Plan. The 500-foot setback does not comply with Condition 3 of the Decision and Order for LUC Docket A87- 617, which imposed a 1,200-foot setback from the highway. The FEIS should clarify how this will be resolved and whether a General Plan land use map amendment would be required for the reduced setback. LUC*

approval of an amended Decision and Order is not guaranteed. Accordingly, the DEIS also needs to discuss what alternatives exist to comply with the existing Decision and Order, and if the amended Decision and Order was issued, what social impacts would result from the loss of public trust in the integrity of the state land use entitlement process. The FEIS should also identify how the buffer area will be preserved in perpetuity as required under Condition 3 of the LUC's Decision and Order.

Response: The proposed Project, as described in the Draft EIS and shown in the Conceptual Master Plan, Figure 3 in Section 1.3, is reflective of the Applicant's current plans for development, which has changed from those plans presented by Nansay during the time of their initial State Land Use boundary Amendment Petition. The proposed commercial uses indicated on the Conceptual Master Plan would be located in the State Land Use Urban District but, as noted in your letter, such uses would be within the 1,200-foot buffer area described in Condition 3 of the initial State Land Use Decision and Order (Docket No A87-617). Condition 3 states, in part:

> "The buffer area shall be comprised of approximately two hundred twenty-five (225) acres and shall extend inland from the Queen Kaahumanu Highway right—of-way to a depth of approximately one thousand two hundred (1,200) feet. The depth of the buffer area may vary and the actual boundary lines of the buffer area may meander to a lesser or greater depth to accommodate the Project's development plan and preservation of natural open space and scenic views. Exceptions shall be made for infrastructure improvements or corridors that may be necessary to service the developed portions of the Property. The approximate boundaries of the natural open space buffer area are reflected in Petitioner's Exhibit LL, which is attached hereto and incorporated herein as Exhibit B."

As noted in Condition 3, some variation to the boundary of the Buffer Area had been envisioned to accommodate the Project's development plan and preserve the open space and scenic views, and exceptions would be made for infrastructure improvements or corridors that may be necessary to serve the development. The notion of certain uses extending into the 1,200-foot buffer area is also reflected in the County Zoning Ordinance (Ordinance No. 96-153) affecting the property. Condition D of Ordinance No. 96-153 states:

> "The applicant shall obtain plan approval from the Planning Director for all uses within 1,200 feet of Queen Kaahumanu Highway right of way."

While the above condition allows for the depth of the buffer area to vary to accommodate the Project's development plan and would allow for exceptions for infrastructure improvements or corridors, any development within the buffer area that substantially deviates from that presented in the initial Decision and Order would require prior approval of the development plan and, depending on the nature of the improvements, possible amendment to Condition 3 of the LUC Decision and Order by the State Land Use Commission. Also, as noted above, any improvements within the Buffer Area would also require Plan Approval by the Planning Director. The Applicant is aware that the development of the proposed commercial use within the Buffer area, as shown in the

Conceptual Master Plan would required a petition to amend Condition 3 of the LUC Decision and Order. Alternately, the Applicant may decide to restrict the commercial development in this area so as to be outside the 1,200 foot buffer area. In either case, any use in this area would adhere to State Land Use requirements for the area.

You note in your letter that the proposed commercial village use would extend into the area generally shown on the County General Plan, Land Use Pattern Allocation Guide (LUPAG) as "Open" use. The land uses designated on the LUPAG Map, however, are intended to serve as a general guide to development. As stated in the County General Plan regarding purpose of the LUPAG: "(t)he land use pattern is a broad, flexible design intended to guide the direction and quality of future development in a coordinated and rational manner." The General Plan Land Use Pattern Allocation Guide (LUPAG) Map indicates the general location of various land uses in relation to each other." The General Plan is implemented by the County Zoning Code and any use in the buffer area would need to adhere to the underlying zoning for the affected area.

A further description the additional approvals required for the proposed commercial village development within the buffer area will be included within Section 6.9 of the FEIS.

Comment: 4. ***Development Phasing and Timetable****. The information provided does not provide a clear picture of the timeframe and phases of development. The FEIS should be supplemented with estimated timeframes for each phase and a map showing the proposed phases with respect to the conceptual master plan.*

Response: Per your suggestion, a more detailed description of the Project phases with timeframe for the phases of development and a map showing the proposes phases in respect to the conceptual master plan will be included in Section 2.5.1, Development Phasing and Timetable of the Final EIS.

Comment: 5. ***Impact on Queen Ka'ahumanu Highway****. The FEIS should discuss any State Department of Transportation's (DOT) plans to increase capacity along the affected sections of Queen Ka'ahumanu Highway, as well as concerns and recommendations raised by DOT with respect to the proposed project improvements at the Mauna Lani and northern/emergency evacuation road access points. As stated above, the traffic impact analysis should include the full development of the 3,000 acres of the Villages of Aina Lea.*

Response: Department of Transportation (DOT) plans for improvements to increase capacity along the affected sections of Queen Ka'ahumanu Highway were considered in the preparation of in the Traffic Impact Analysis Report (TIAR) included as Appendix M of the EIS, and are noted in Section 4.6 of the Draft EIS. Those concerns raised by the DOT pertaining to the Draft EIS will be addressed in the Final EIS. The TIAR does takes into account the potential development of area of the Project as well as the Waikoloa Village/Mauna Lani region in the analysis of future traffic conditions and their recommendations for traffic-related improvements to mitigate the Project impacts. As

noted above, the TIAR has been updated to include the potential development of the surrounding Bridge lands.

Comment: 6. ***Timeframe for Completion of the Northern Emergency Evacuation Road****. The timeframe for completion of the proposed mauka-makai road is unclear. Various sections of the DEIS and the TIAR state the road will be built in Phase I; other sections link the completion of the road with financing through the Community Facilities District (CFD) bonds. The FEIS needs to clarify when the mauka·makai road is to be constructed and completed. Timing in relation to project build-out is essential to understand the traffic impacts of the development.*

Response: As noted in the DEIS, construction of the Mauka-Makai Road is linked with the planned Community Facilities District (CFD) financing. The Applicant is working with the County in obtaining the remaining County approvals required for establishing the proposed CFD, including the Ordinance of Formation and Bond Ordinance approval, which are expected by the end of 2001. Issuance of the CFD bonds is expected in the following year, in 2011. Construction of the mauka-makai road is to be completed with the Phase I improvements, which are scheduled to be completed by 2012. A clarification regarding the timetable for the CFD financing and construction of the mauka-makai road will be included in Sections 2.5.2 and 7.5.5 of the Final EIS.

Comment: 7. ***Community Facilities District****. Additional information on the CFD, project components that will use CFD bond financing, and the current status and schedule for CFD bond financing is needed in the FEIS.*

Response: The general timetable for the CFD financing is noted above in relation to your previous question regarding the construction schedule for the planned mauka-makai road. As noted, a clarification on the timetable for the CFD financing and construction of the mauka-makai road will be included in Sections 2.5.2 and 7.5.5 of the Final EIS.

Comment: 8. ***Energy and Electrical Demand****. The FEIS must include a more detailed description of the energy conservation and efficiency and renewable technologies that will be incorporated into the project. Commercial energy demand should be included in the FEIS' estimates of electrical energy use. In addition to a discussion of the impacts of increased carbon emissions and continued reliance upon fossil fuels as a primary or secondary result of this project, the FEIS must examine the mitigation alternatives, which can reduce fossil fuel use. Section 11- 200-17(M), HAR, states:*

> *"M. The draft EIS shall consider mitigation measures proposed to avoid, minimize, rectify, or reduce impact, including provision for compensation for losses of cultural, community, historical, archaeological, fish and wildlife resources, including the acquisition of land, waters, and interests therein. Description of any mitigation measures included in the action plan to reduce unavoidable, adverse impacts to insignificant levels, and the basis for considering these levels acceptable shall be included. Where a*

particular mitigation measure has been chosen from among several alternatives, the measures shall be discussed and reasons given for the choice made. Included, where possible and appropriate, should be specific reference to the timing of each step proposed to be taken in the mitigation process, what performance bonds, if any, may be posted, and what other provisions are proposed to assure that the mitigation measures will in fact be taken."

Accordingly, even if the mitigation alternatives are determined to be too expensive or inappropriate for this site, the analysis must be conducted to allow the appropriate decision-makers to make an informed decision. Although the DEIS generally mentions sustainable guidelines or principles, it does not conduct the analysis to determine how these guidelines or principles are implemented, specifically for this project. So, there is no adequate description of the mitigation measures included in the action plan to reduce impacts to insignificant levels, the basis for considering these levels acceptable, or a discussion on why certain alternatives were chosen over other alternatives.

Response: A more detailed description of the Project's projected energy demand and proposed mitigation measure will be added to the discussion on energy use in Section 4.11.5 of the Final EIS. These measures include specific energy and waters conservation measures that have been part of the design and construction of the existing affordable town home units, the installation of photovoltaic panel arrays in the area of the town homes, and the implementation of a electric recharge program for electric vehicles within the Project.

Comment: 9. ***Invertebrate Survey****. The DEIS does not include information on invertebrate species on or in proximity to the project site or in any lava tubes or caves on the property that may be impacted by project development. The FEIS should provide information on whether any species of concern are present at the property or have been identified as being present in the region, such as the blind cave spider, and propose mitigation efforts if discovered even inadvertently.*

Response: The Draft EIS did not include a survey of invertebrate species on or in the proximity of the Project site because it did not appear to be warranted, as those rare and endangered invertebrate species are generally associated with native vegetation that are completely absent from this property. With regard to the cave spider, this is not a listed or candidate endangered species. Also, it is worth noting that there have been several archaeological surveys of the complete property through which no lava tubes or natural caves were found, other than one relatively small and shallow cave located mauka of the Project site, which was used as a burial site. This lack of supportive native vegetation and suitable habitat would appear to present an extremely poor and unlikely habitat for the blind cave spider. Also, in that the blind cave spider is not a listed or candidate endanger species, further mitigation measures in the event that lava tubes are encountered during the course of construction do not appear warranted.

Comment: 10. ***Archaeological and Historic Resources****. The FEIS Volume I should include a map that displays the general location and alignment of the historic cattle trail with respect to the project's conceptual master plan, and set forth the process that will be followed if remains are discovered during development.*

Response: A map with the alignment of the cattle drive trail is included with the Cultural Impact Assessment Addendum, Appendix L1. Visible remnants of the trail were found in the extreme northern-makai portion of the Project Site, predominately in the 1,200 foot buffer area fronting the Highway and an area planned for single-family development. Prior to development in the area, a pedestrian reconnaissance survey of the trail alignment will be conducted to identify any visible portions of the trail that might be impacted by development. The Applicant will work with its archaeological and cultural specialists to develop an appropriate interpretive plan for those portions to be preserved. We should note that the trail has not been designated as an archaeological site for preservation. The State Historical Preservation Division, in their October 26, 1992 letter notes that because the trail is recent in age, it does not constitute ad significant historic site and hence, not worthy of further recordation, data recovery, or preservation. The trail, however, is considered of some cultural importance and the Applicant has elected to preserve those portions that might be potentially impacted by the planned development as a means of providing a linkage to this cultural history of the area.

Comment: 11. ***Drainage and Storm water Management****. Volume I of the FElS should include a map that displays and labels the major drainage systems, streams, and gulches referred to in Volume J, including the approximate location of stream or gulch crossings. The FElS should also clarify whether the on-site drainage facilities will be designed to the 10-year or 50-year storm. The FEIS should discuss the relationship of both surface and subsurface runoff or storm water flows from or across the property to the Puako flood plain, designated Zone A in the Flood Insurance Rate Maps. If runoff from or through the property contributes to discharges to the Puako flood plain, then it is not clear why storm water flows and drainage for the project were not evaluated with respect to 100-year flood events.*

The FEIS should examine the use of Low Impact Development (LID) techniques to manage the quantity and quality of storm water and runoff on and offsite. The absence of any analysis renders the DEIS incomplete.

Response: The major drainage systems, streams, and gulches revered to in the Conceptual Master Plan Drainage Report (Report) are shown in Figure 2-4 of the Report. The location of all drainage crossings are not known until the planned roads for these crossings are known and their final alignment is determined, and therefore can not be provided at this time. The County drainage standards require that certain on-site drainage facilities are to be designed for the 10-storm and other on-site drainage facilities are to be designed for the 50-year storm. The on-site project drainage facilities would be designed as required by the Storm Drainage Standard, Department of Public Works, County of Hawaii (COH), October 1970.

With regards to the potential discharges to the Puako flood plain, as noted in Section 3.5, Hydrology and Water Resources, the intent of the Preliminary Master Drainage Plan is there is no increase to the runoff leaving the site as a result of the development so there should be no change in the quality or impact to the water resources.

Regarding the use of Low Impact Development (LID) techniques to manage storm water flows, we understand that use of LID's to be a storm water management approach modeled after nature that seek to manage rainfall at the source using uniformly distributed and decentralized points of controls. LID's goal is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source. While not a required by the County standards, aspects of the LID approach have been incorporated into the preliminary drainage planning for the Project through the use of distributed and decentralized drainage detention/retention areas, including portions of the adjacent golf course, were practicable. It is too early in the design process to point to other site-specific examples, however, LID's can lend useful technique for storm water management and will be evaluated in the further planning and design of the project drainage system.

Comment: 12. ***Water.*** *Please clarify which land use the golf lodge is included in with respect to potable water demand in Table 8. Is the potable water demand for parks/open space for fixtures and drinking water or irrigation or both? Furthermore, the DEIS should include a discussion as to how the additional water use will impact the salinity levels of the water leaking into the coastal waters, and whether there are any sensitive environmental locations that may be affected, such as anchialine ponds.*

Response: The planned golf lodge units are included with the "mixed-unit" counts with respect to the potable water demand shown in Table 8. Also, the potable water demand shown in Table 8 under the parks and open space land use category reflects both the projected potable and irrigation water demand. With regards to the potential impact to the salinity levels of the groundwater, as noted in Section 3.5 of the DEIS, the projected total decrease in groundwater flow, accounting for both the estimated Project and Uses on the surrounding Bridge lands and accounting for irrigation water returned to the groundwater, is estimated to be 3 percent of the corridor's total groundwater flow rate, well below the levels that would result in a potential increase in salinity levels. Consequently, no increase to groundwater salinity levels near the shore are predicted as a result of the brackish water use for the Project development. This point will clarified in the discussion on the Groundwater Flow Rate within Section 3.5 of the Final EIS.

Comment: 13. ***Wastewater Treatment and Disposal****. Please clarify whether injection wells will or will not be used in conjunction with the wastewater treatment plant. The FEIS Volume I should identify how the Applicant plans to dispose of wastewater sludge since it can't be disposed of at Kealakehe Wastewater Treatment Plant.*

Although the re-use of sewage effluent does result in the conservation of water, the DEIS should also include a more in-depth discussion on the impact of the higher nutrient loads

leaking into the near shore waters from the Project site, and the possible usefulness of additional monitoring wells.

Response: Wastewater from the WWTP will be treated to a R-1 level and then be combined with the irrigation water source to be used in the irrigation of the project landscape and golf course. The State Department of Health (DOH) requires that the system include an emergency alternative, which may included an injection well or collection pond. The dewatered sludge from the WWTP would be dried and either recycled with compost or shipped to an appropriate disposal facility in a manner meeting Department of Environmental Management and State Department of Health regulations and requirements. Because of the technology of the membrane bioreactor system that is planned for the Project's WWTP, the dewatered sludge produced by the system will be minimal.

A discussion of the potential nutrient additions to the ground water as a result of the Project is contained in Section 3.5 of the Draft EIS. With regard to ground water monitoring, it should be noted the primary use of the recycled wastewater will be on the project golf course which will be monitored as part of a golf course monitoring system, and use of the recycled wastewater would adhere to a DOH approved Wastewater Reuse Plan, both of which are required by the DOH's "Eight (8) Conditions Applicable to This Golf Course Development." Compliance with the DOH's conditions for golf course development is a requirement of the development per the State Land Use Decision and Order pertaining to this property (Docket A87-617, dated January 7, 1989, Condition 5). A further discussion on the golf course monitoring system and the Wastewater Reuse Plan, in accordance with the DOH requirements will be included in Section 3.5 of the Final EIS.

*Comment: 14. **Solid Waste**. The County's Department of Environmental Management, Solid Waste Division commented that the Puako transfer station is not sized for the project's residential garbage, and that because of the project's size, the Applicant should institute a garbage collection and recycling program to serve the planned development. This should be reflected in the body of the FEIS. Reference on page 4-26 to individual households taking garbage to the transfer station should be deleted. The DElS also includes only a passing reference to the preparation of a solid waste management plan review for the Department of Public Works, and the inclusion of an educational component for residents. It fails to include any actual analysis on alternatives to reduce solid waste disposal. The DElS's focuses upon the availability of landfill space, rather than the potential to reduce the need for landfill space.*

Response: The limited capacity of the existing Puako transfer station, as noted by the County's Department of Environmental Management, Solid Waste Division will be noted in Section 4.11.3 of the Final EIS. In regards to promoting the recycling of solid waste, the Applicant has committed to provide for curbside pick-up throughout the Project, which would include space for multiple bin pick-up for recycling purposes. A statement to this effect will be included in Section 4.11.3 of the Final EIS. Please note that the Applicant will also be preparing a Solid Waste Management Plan that will be prepared according the Department of Environmental Management's (DEM) Solid Waste

Management Plan Guidelines and submitted for the DEM approval. In addition, the Applicant will be making a fair-share contribution to the County, per the requirements of its zoning approval, to address the Project's impacts to the County's solid waste facilities and services in the area. A further analysis of alternatives to reduce the amount of project generated solid waste would be contained in the Solid Waste Management Plan, which would be prepared appropriately at a later stage in the planning process when there is a more definition to the densities and types of uses planned throughout the project.

Comment: 15. ***Residential Component****. Passing reference is made to marketing of the project to the second home market. Please provide a clearer description of the project's targeted market groups, the types of residential products envisioned for the project, and the expected price ranges for the different product types.*

The FEIS should also describe the workforce housing referenced in the DElS, the nature of the partnerships the Applicant is seeking to provide workforce housing, and how the workforce housing units will be distributed among the different housing types.

Response: In terms of the market groups and types of residential products envisioned for the project, the initial 432 town homes will be targeted to local buyers as their primary residence. The balance of the residential product, which would include a mix of lots, single-family homes, townhomes, condominiums and apartments, would be targeted to both local buyers and non-permanent residents. The single family homes are planned to be custom built by the individual lot owners or different developers and would be subject to design covenants. Currently it is estimated that 35 percent of the buyers would be local buyers and the remainder would be second-home buyers from off-island or out of State.

The workforce housing referred to in the DEIS is in reference to an commitment that the Applicant has made to the ILWU to provide workforce housing facility that would be managed by the Jack Hall Foundation, the location of which within the Project has not been determined. The facility would be an extended stay facility providing a living room, small galley-kitchen, and one room and one bath per occupant. There facility would also have a meeting/social room area. The ILWU is currently conducting a needs study to further define the facility requirements.

Comment: 16. ***School and Community Facilities****. The Applicant proposes to provide sites on Agricultural District lands owned by Bridge for a public school site, regional community center, and an active park. It would be helpful to the user to map the general location of these sites with respect to the project's conceptual master plan.*

Response: In that agreements with the State DOE on the location and nature of the school site, and with the community and County on the nature and location of the community center are ongoing, it would be premature and perhaps misleading to identify a site for these uses on a map. The Applicant has proposed a location and set aside lands for these uses, but final determination on the size and location for these facilities has yet to be made.

Comment: The FEIS should also note that a district boundary amendment or a State Special Permit would be required for a school or community center that is proposed for Agricultural District lands. The Department of Education (DOE) should be consulted, and their comments incorporated in the FEIS, as to whether they would accept a school site that is classified Agricultural. It is probable that the project will be subject to DOE's impact fee authority. The body of the FEIS should state DOE's position regarding the impacts and mitigation required for the project.

The DEIS also fails to discuss whether additional Land Use Commission approval will be sought to site the school on agricultural land, contrary to the original representations before the LUC and the existing Decision and Order, and also fails to discuss the resulting loss of public confidence in the land use entitlement processes. See p. xiii of the DEIS. The FEIS should also include an analysis of the school on-site as an alternative proposal in case the LUC does not amend the Decision and Order.

Response: The additional land use approvals required for the proposed school use within the Agricultural District and alternatives, should such approval not be received, will be included in Section 4.12.5 of the Final EIS. It is assumed that, regardless of the where the school is ultimately located, State and County land use regulatory procedures and requirements will be adhered to with no loss of public confidence in the land use entitlement process.

Comment: The DEIS also proposes that the ten-acre community park will be enlarged to sixteen acres, but built after Phase I is completed, contrary to existing county requirements. The FEIS should discuss the social and community impacts on the affordable housing units if the construction of the sixteen-acre park is delayed.

Response: As noted in Section 2.5.1 of the Draft EIS, the 10-acre active park will be built in the initial phase of development, as required by County Zoning approval (Ordinance 1993-001, Condition H). The applicant has proposed that this facility be expanded to16 acres in the area that would be adjacent to the proposed DOE school site so that there is sufficient area to meet the DOE's school playfield requirements, pending an agreement on the potential joint use of the park facilities. In this way, there could be a maximization of the available recreational facilities built in this area to the benefit of both the larger community and the DOE.

*Comment: 17. **Section 5**, Alternatives, does not provide an alternative conceptual development plan to the original or the proposed project, i.e., an alternative to a residential golf community. The preferred alternative and Alternatives 5.3 and 5.4 represent variants of the original golf community proposal of Alternative 5.2.*

Response: The alternatives presented in the Draft EIS represent a broad range of alternative development scenarios that were examined by the Applicant. Alternative 5.3 would not necessarily include golf use, and would be considerably different from the original or preferred alternatives. Also, in allowing for a more efficient land use, a development that is more responsive to the site conditions and potential changes in

market conditions, and one which represents a lower overall density, the Preferred Alternative differs markedly from the original master plan (Alternative 5.2) or a development that would follow the existing zoning (Alternative 5.3).

Comment: 18. ***Section 6.2*** *does not include a discussion of the State Functional Plans, Chapter 226, HRS.*

Response: The policies and objectives of the State Plan that direct the functional plans are addressed in Section 6.2. The State Functional Plans are defined in Chapter 226, HRS as "... setting forth the policies, statewide guidelines, and priorities within a specific field of activity, when such activity or program is proposed, administered, or funded by any agency of the State." As such, they provide guidance to State agencies in their carrying out the policies and objectives of the State Plan and are not especially relevant to the planning of a private development such as The Villages of ʻĀina Leʻa.

Comment: 19. ***Section 6.4*** *should discuss conformance with the State land use district standards in Chapter 205, HRS.*

Response*:* Response: Section 6.4 will be expanded within the Final EIS regarding the discussion on the Projects conformance with State Land Use District standards, as set forth in Chapter 205, HRS.

Comment: 20. ***Section 6.6****, the discussion on page 6-16 following General Policy 5 is not consistent with statements made elsewhere that the long-term impact of planned development on groundwater resources in the mauka-makai corridor is problematic, and will require a coordinated strategy to assure resource protection. The text should be modified to reflect this.*

Response: The discussion within Section 6.6 will be expanded in the Final EIS to reflect the Applicants efforts toward resource protection, as discussed previously in Section 3.5.

Comment: 21. ***Section 7.1****, Foreclosure of future options. The residential golf community model forecloses the option of a more compact, mixed use village that has a smaller footprint and better integration of different land uses within a community or regional center, such as is contemplated in the transit oriented development (TOD) nodes that are to guide and shape growth in the Kona Community Development Plan area. The FEIS should include the consideration of a mixed- use village as an alternative.*

Response: As shown in the Conceptual Master Plan and described in Sections 2.3.2 and 2.3.6 of the Draft EIS, a mixed-use village is included as part of the Villages of ʻĀina Leʻa that includes an integration of different land uses within a community center. The planned development will provide opportunities for use of mass transit in a manner appropriate to the location and scale of the development. A further discussion of the provisions for mass transit is found in Section 2.3.8, which will be expanded in the Final

EIS to note that the primary Project roads will be planned to accommodate bus use, which could include pick-up and drop-off locations, and park-and-ride facilities, should this service be extended to the project; as well as the Applicant's commitment to work the County transit officials to include the Project as a potential bus stop for those commuting to Kailua-Kona.

*Comment: 22. **Section 7.2**, Cumulative and Secondary Impacts. The project as designed continues the region's reliance on the visitor industry to drive economic development and job opportunities.*

Response: The statement found within Section 7.2 that the Island economy will continue to be driven primarily by growth in the visitor industry is based on the findings of the Socio-Economic Assessment within Appendix P. It is a statement regarding the nature of the Big Island economy, not on the nature of the Project itself.

*Comment: 23. **Section 7.4**, paragraph 1, page 7-5, OP recommends deletion of "minimal" in the sentence discussing the loss of natural open space and the impacts on existing view sheds. While the profile of the planned development may be low and landscaped, the project will fill a broad swath of land with structures and manmade landscaping, which will be much more evident at night.*

Response: The change to the character of the area from open lands to a landscaped, developed environment is noted in Section 7.4. For clarification, the statement regarding the impact to the view shed will be reworded in the Final EIS to state that the development will result in the loss of a natural open-space, as well as impacting the character of existing viewsheds.

*Comment: 24. **Section 7.4**, Project development will also harden the landscape, increasing impermeable area and contributing to urban heat island effects. The DEIS must analyze these impacts, and what types of mitigation efforts can be made.*

Response: While there will be the necessary infrastructure built as part of the Project, including roads and parking areas, we disagree with the statement that the Project development will contribute to "urban heat island effects." A well-landscaped development, especially with the integration of landscaped roads, golf course, and parks, as is proposed for this Project, often provides a cooler environment than is found in the surrounding open lands, as is evident nearby at the core of Waikoloa Village.

Comment: 25. As a precautionary measure, OP recommends the FEIS reflect a stronger commitment to establishing and preserving the 500-foot buffer area for the red 'ilima and the preservation of the identified burial site at the outset of the project. This will ensure that encroachment on these sensitive resource areas is prevented during the field and construction phases of the project and its support facilities.

Response: The Applicant has demonstrated a strong dedication the preservation of the area of the red ‘ilima with a commitment to resurvey the area after a period of heavy rains to determine if a seed bank or seedlings of this species are still present and, if located, implementing preservation protocols developed in consultation with DLNR and the U. S. Fish and Wildlife Service, prior to any land alteration in the associated development phase. The burial site is located on the adjacent Bridge lands and, at the closest point, is over 900 feet from the planned water utility corridor that would extend from the Project to the Waikoloa Village water system. As such there is little threat of this site being impacted by the proposed development. As an added precautionary measure, construction fencing has been placed around the burial site.

Comment: 26. OP notes that the establishment of essentially two commercial service centers in the conceptual master plan, one within the project and one on the edge of the project near the highway, will result in more dispersed traffic patterns, greater reliance on motorized vehicles to access goods and services, and lower the potential for the mixed use area to really function as the "heart" of the community.

Response: The Commercial Village and the Mixed-use Center are planned with walkways and bikeways to allow for connectivity to the Villages of ‘Āina Le‘a community. While the Commercial Village would be focused both on serving Project residents and regional demand, requiring accessibility from the Highway, the commercial uses within the Mixed-use Center would provide a greater focus to the needs of community resident in the type, diversity, and scale of the commercial uses, thereby functioning as the activity center and “heart” of the community.

Comment: 27. The DEIS contemplates several violations of the Land Use Commission's Decision and Order. The DEIS needs to fully and complete list and describe all past and contemplated future violations of the LUC conditions and representations made before the LUC, and must discuss the social impacts of the erosion of public trust in land use regulatory processes, and in government in general, should the LUC allow these violations through either amendments to its Decision and Order or through non-enforcement.

Response: The Project, as described in the Draft EIS, does not anticipate any violations to the LUC conditions. As discussed previously, those uses where an amendment to the existing LUC conditions or further approvals are required, will be described in the Final EIS. It is assumed that the proposed development would be in compliance with all State and County laws and regulations with no erosion of public trust in the land use regulatory process or government in general.

Comment: 28. Table 1 describes the affordable housing units as being built upon TMK 6-8- 001:36. But Figure 4 appears to place the affordable units on a separate TMK parcel, possibly TMK 6-8-001:39. The FEIS needs to include a photograph or the area with a TMK overlay to demonstrate upon what parcel the affordable units are being built.

Response: The affordable units are in TMK parcel 6.8.001:36 as described in Table I. The TMK Parcel map in Figure 1 was prepared prior to a recent re-subdivision and consolidation, which resulted in a change to the TMK Parcel maps. Figure 2, TMK Parcels, will be updated and corrected in the Final EIS.

Clarifications/Corrections for FEIS

Comment: 29. Purchase years for the property appear to be inconsistent. Please correct or add language that clarifies the different years cited (e.g., pp. vii and 1-1).

Response: The reference to February 2009 on Page vii is correct. The 2008 date on Page 1-1 is incorrect as it refers to an earlier agreement that was superseded by the 2009 document, and will be corrected in the Final EIS.

Comment: 30. On page 3-19, a much lower figure for potable water use is used. Please clarify.

Response: The figure on Page 3-19 referring to the Project's estimated potable water use as being between 0.29-0.63 mgd is in error. That will be changed in the Final EIS to the correct number of 1.322 mgd.

Comment: 31. It would aid the user if the viewpoint location and direction were displayed to assist the user in orienting themselves to the simulated views in Figure 15.

Response: Although the paragraph preceding Figure 15 notes that the viewpoint is from the Queen Ka‘ahumanu Highway looking mauka, a clarification will be added to show that the viewpoint is looking toward the east.

Comment: 32. Please use consistent terms for the Waikoloa Wastewater Treatment Plant.

Response: The phrase "Waikoloa Wastewater Treatment Plant" does not appear in the Draft EIS. There are numerous references to two West Hawai‘i Sewer Company facilities in Waikoloa, the ‘Auwaiakeakua wastewater treatment plant and the Kamakoa wastewater treatment plant, the former of which will be upgraded to provide R-1 treated wastewater for Project irrigation purposes. The references to the ‘Auwaiakeakua WWTP are consistent throughout the document.

Comment: 33. References in the DEIS and Appendix P of the use of State tax revenues generated by project construction and build-out to offset the cost of fire, police, and emergency protective services should be revised, since it is typically County tax revenues that pay for these services.

Response: The inaccurate reference to State tax revenues assisting in the development of additional fire and emergency services in Section 4.12.2 has been removed.

Comment: 34. Please replace the definition of the Coastal Zone Management (CZM) area on page 6-4 with the following definition provided in Section 205A-l, Hawai' i Revised Statutes (HRS): " ...all lands of the State and the area extending seaward from the shoreline to the limit of the State's police power and management authority, including the United States territorial sea."

Response: The definition of the CZM will be corrected in Section 6.3 of the Final EIS.

Comment: 35. Tables 8-10 of the TIAR uses 340 units for trip generation for affordable housing for 2012. The number of units should be 385. Please correct the inconsistency or explain why the lower number was used.

Response: The error in the number of affordable units shown in the Table 8-10 will be corrected. The total number of affordable units for the Project used in the TIAR report is correct but this was a typographical error within Table 8-10 that will be corrected with an update to the TIAR that will be included with the Final EIS.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

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7 July 2010

B.J. Leithead-Todd
Planning Director
Aupuni Center
101 Pauahi Street, Suite 3
Hilo, HI 96720

Dear Ms. Leithead-Todd:

The Nature Conservancy is writing to provide comments on the recently released DW Ainalea EIS.

While the terrestrial resources in the area proposed for this development may be adequately protected through the fencing actions proposed, we are writing to ensure that the health of the marine resources in the areas immediately seaward of the development are also considered, as they may be impacted by the following:

Residential Water Use and Disposal – Both modeling and coastal water quality analyses from Maui provide evidence that primary treated effluent injected below the freshwater aquifer can seep out into the ocean and contribute to coral habitat loss through elevated nutrient levels.[1] The coastal ecosystem will also be impacted if 5,780 new residents (as estimated in the DEIS) tap into the freshwater aquifer. However, both of these issues can be mitigated through the re-use of treated wastewater.

RECOMMENDATION 1: Construction of a functioning tertiary (R-1) treatment plant for wastewater reclamation and re-use utilizing the best available technology should become a top priority of this development.

RECOMMENDATION 2: DW Ainalea should include ongoing rigorous scientific monitoring before, during, and after construction to ensure that there is no negative impact from the development or management of human effluent on coral reef habitat or human health in Mauna Lani, Puakō, Waialea Bay, and Hapuna Beach State Park.

Increased Activity – As the resident population increases through this development, the number of recreational users at community beach access sites, as well as State and County Parks will likely increase. Although the maps included in the EIS identify the Mauna Lani Resort properties, where access and use are managed by private landowners, they do not identify the coastal resident community of Puakō immediately seaward, where there is no private management authority and no existing infrastructure for visitors and recreational users at any of the 11 public shoreline access sites. Since this community is immediately seaward of the proposed development, it will likely experience increased use, and the environmental effects of this use should be considered and mitigated.

Puakō is home to an extensive coral reef flat with some of the most vibrant shallow water coral formations in the state. To date, this shallow water coral has been able to survive due to the relatively limited

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[1] Dailer, M.L., et al. 2009. *Using d15N values in algal tissue to map locations and potential sources of anthropogenic nutrient inputs on the island of Maui, Hawai'i, USA*. Mar. Pollut. Bull. (2010), doi:10.1016/j.marpolbul.2009.12.021
Hunt, C.D., Jr. 2007. *Ground-Water Nutrient Flux to Coastal Waters and Numerical Simulation of Wastewater Injection at Kihei, Maui, Hawaii*: U.S. Geological Survey Scientific Investigations Report 2006–5283, 69 p.

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use of most of Puakō's reef by waders, snorkelers, and divers, and the responsible practices of residents who have a strong understanding of the importance of taking care of coral habitat. This shallow reef habitat is an important foraging area for threatened sea turtles (*honu*), parrotfishes, (*uhu*), and octopus (*he'e*) and several surgeonfish species, including *lau ipala, manini, umaumalei, naenae, palani, pualu,* and *mā'i'i'i* . These reef fish species are not only vital members of the complex coral reef ecosystem, but also valuable subsistence, cultural, and commercial resources for the residents of the region.

Fishing and gathering are likely to increase as the resident population increases and more people begin to utilize Puakō and the adjacent areas to catch fish for recreation, livelihood, trade, and consumption. This increase could have a negative impact on important reef fish species and the coral reef as a whole, and should be limited to ensure the level of use is sustainable and does not result in reduced reef fish populations. A lack of herbivorous fish species targeted by fishermen has been correlated to an increase in invasive algae and loss of coral reef habitat on O'ahu and Maui, where managers are now spending millions of dollars to clean up a problem that could have been avoided by foresight and prevention. DW Ainalea has the opportunity to avoid this problem by supporting increased protections for coastal and marine habitats in this region, and reducing the impacts of the increased human use likely to occur because of this development.

RECOMMENDATION 3: In addition to the biological surveys recommended above, DW Ainalea should fund human use surveys to determine the level of human use in the coastal regions before, during and after its development; and, if warranted by increased use, fund community outreach and compliance programs (e.g. Makai Watch) to enhance compliance with and enforcement of marine resource regulations.

A lack of restroom facilities at coastal access sites in Puakō has not deterred their use for activities such as picnicking, sunbathing, surfing, diving, and fishing, and there is ample evidence that users are relieving themselves in the water and at the coast due to the lack of facilities. The detrimental effects of human waste on human and coral reef health are well documented, and any increase in coastal and nearshore human use because of this development may lead to an increased risk of bacterial infection and habitat loss through coral mortality.

RECOMMENDATION 4: The negative impact on environmental and human health due to elevated levels of nutrients and bacteria from increased human use can be minimized by providing basic restroom facilities at the most heavily used access sites in the Puakō region.

Thank you for your thoughtful consideration of these comments and recommendations. The Nature Conservancy looks forward to working with the county, developer, and all stakeholders to ensure that the natural resources that make this region so special and desirable are protected and enhanced through appropriate development and mitigation measures.

Aloha,

Mark R. Fox

Mark Fox

Director, External Affairs

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J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Mark Fox, Director of External Affairs
Nature Conservancy of Hawaiʻi
923 Nuʻuanu Avenue
Honolulu, HI 96817

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Fox:

We received a copy of your July 7, 2010 letter (attached) in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments to the Draft EIS.

Comments: While the terrestrial resources in the area proposed for this development may be adequately protected through the fencing actions proposed, we are writing to ensure that the health of the marine resources in the areas immediately seaward of the development are also considered, as they may be impacted by the following: Residential Water Use and Disposal- Both modeling and coastal water quality analyses from Maui provide evidence that primary treated effluent injected below the freshwater aquifer can seep out into the ocean and contribute to coral habitat loss through elevated nutrient levels. The coastal ecosystem will also be impacted if 5,780 new residents (as estimated in the DEIS) tap into the freshwater aquifer. However, both of these issues can be mitigated through the re-use of treated wastewater.

RECOMMENDATION 1: Construction of a functioning tertiary (R-I) treatment plant for wastewater reclamation and re-use utilizing the best available technology should become a top priority of this development.

RECOMMENDATION 2: DW Ainalea should include ongoing rigorous scientific monitoring before, during, and after construction to ensure that there is no negative impact from the development or management of human effluent on coral reef habitat or human health in Mauna Lani, Puako, Waialea Bay, and Hapuna Beach State Park.

Response: Regarding your concern for the potential for treated wastewater effluent injected below the freshwater aquifer seeping out to the ocean and contributing to coral habitat loss through elevated nutrient levels, injection wells will not be used for the disposal of treated effluent. As noted in Section 4.11.2 of the Draft EIS, the Project's wastewater will be treated to an R-1 level and used for irrigation use, as per your recommendation.

Comments: ***Increased Activity*** *- As the resident population increases through this development, the number of recreational users at community beach access sites, as well as State and County Parks will likely increase. Although the maps included in the EIS identify the Mauna Lani Resort properties, where access and use are managed by private landowners, they do not identify the coastal resident community of Puako immediately seaward, where there is no private management authority and no existing infrastructure for visitors and recreational users at any of the II public shoreline access sites. Since this community is immediately seaward of the proposed development, it will likely experience increased use, and the environmental effects of this use should be considered and mitigated.*

Puako is home to an extensive coral reef flat with some of the most vibrant shallow water coral formations in the state. To date, this shallow water coral has been able to survive due to the relatively limited use of most of Puako's reef by waders, snorkelers, and divers, and the responsible practices of residents who have a strong understanding of the importance of taking care of coral habitat. This shallow reef habitat is an important foraging area for threatened sea turtles (honu), parrotfishes, (uhu), and octopus (he 'e) and several surgeonfish species, including lau ipala, manini, umaumalei, naenae, palani, pualu, and ma‘i‘i‘i. These reef fish species are not only vital members of the complex coral reef ecosystem, but also valuable subsistence, cultural, and commercial resources for the residents of the region.

Fishing and gathering are likely to increase as the resident population increases and more people begin to utilize Puako and the adjacent areas to catch fish for recreation, livelihood, trade, and consumption. This increase could have a negative impact on important reef fish species and the coral reef as a whole, and should be limited to ensure the level of use is sustainable and does not result in reduced reef fish populations. A lack of herbivorous fish species targeted by fishermen has been correlated to an increase in invasive algae and loss of coral reef habitat on O'ahu and Maui, where managers are now spending millions of dollars to clean up a problem that could have been avoided by foresight and prevention. DW Ainalea has the opportunity to avoid this problem by supporting increased protections for coastal and marine habitats in this region, and reducing the impacts of the increased human use likely to occur because of this development.

RECOMMENDATION 3: In addition to the biological surveys recommended above, DW Ainalea should fund human use surveys to determine the level of human use in the coastal regions before, during and after its development; and, if warranted by increased use, fund community outreach and compliance programs (e.g. Makai Watch) to enhance

compliance with and enforcement of marine resource regulations. A lack of restroom facilities at coastal access sites in Puako has not deterred their use for activities such as picnicking, sunbathing, surfing, diving, and fishing, and there is ample evidence that users are relieving themselves in the water and at the coast due to the lack of facilities. The detrimental effects of human waste on human and coral reef health are well documented, and any increase in coastal and near shore human use because of this development may lead to an increased risk of bacterial infection and habitat loss through coral mortality.

RECOMMENDATION 4: The negative impact on environmental and human health due to elevated levels of nutrients and bacteria from increased human use can be minimized by providing basic restroom facilities at the most heavily used access sites in the Puako region.

Response: As noted in the Draft EIS, the Applicant recognizes that there are indirect impacts to the coastal recreational and natural resources in the area. The nature of these indirect impacts to various coastal areas from the potential residents in any new development in the region, other than directed impacts from coastal developments, would be difficult to assess with any degree of accuracy. These are part of the general impacts of a growing population in the area, of which the proposed project would be a part. The potential impacts to the coastal resources from the areas growing population and the provision for facilities in areas of coastal access, not only at Puako but throughout the region, are part of a broader set of coastal management issues that are best addressed in a comprehensive fashion by the State and County. Section 4.12.1 of the Final EIS contains an expanded discussion of this issue. The Applicant is committed to participating with the State, County, community groups and other stakeholders in the area to address these concerns and will be working with groups, such as Makai Watch, to further enhance the community outreach and marine resource protection efforts in the area.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

J M Leonard Planning, LLC 1100 Ainalako Road Hilo Hawaii 96720

HI County Planning Department
Fax to: 1-808-961-8742

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850

2010 JUL 12 AM 10:50
PLANNING DEPARTMENT

In Reply Refer To:
2010-TA-0319
2008-TA-0063

JUL - 7 2010

Ms. B.J. Leithead Todd
Planning Director
Hawaii County Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Subject: Draft Environmental Impact Statement for the Villages of Aina Lea, South Kohala, Hawaii

Dear Ms. Leithead Todd:

We are in receipt of your May 21, 2010 letter, in which you requested comments for the Draft Environmental Impact Statement for the Villages of Aina Lea (DEIS), a residential golf community on 1,060 acres of land in the District of South Kohala, Hawaii. We provided comments to the preparation notice on January 7, 2008 (Service File 2008-TA-0063).

In our 2008 letter, we recommended additional botanical surveys be conducted, as the project impacts are based upon a 1991 survey. An additional botanical survey was conducted in February 2010, but assessed only the utility corridors, and not areas previously surveyed. Of particular concern is the status of *Abutilon menziesii*, a federally endangered plant. The only known population of *A. menziesii* on the Island of Hawaii was detected on the property during the 1991 surveys, but was not detected during an additional survey conducted in 2000. However, the seed bank for this species may still persist, and we recommend you not disturb the soil within 500 feet of where any *A. menziesii* were found. The DEIS states that a botanical survey of the property will be conducted following a period of extensive rainfall. We request that a copy of the report from this survey be submitted to our office. To offset impacts to *A. menziesii*, if detected, the developer has proposed to move the plants to a designated 5-acre preserve. We recommend that a management plan the preserve and for *A. menziesii* be developed.

We recommended surveys for several cave invertebrates, the Kaumana cave cricket (*Caconemobius varius*), volcanoes cave cricket (*Thaumatogryllus cavicola*), Doc Bellou cave oliarus planthopper (*Oliarus* spp.), Pahoa cave oliarus planthopper (*Oliarus* spp.) be conducted, and the DEIS does not contain reports of these surveys, or mention of potential impacts to these species. We also recommended surveys for the endangered Blackburn's sphinx moth (*Manduca blackburni*), and the DEIS does not contain a report, or address potential impacts to this species.

TAKE PRIDE IN AMERICA

We recommend that the aforementioned surveys be conducted prior to completing the FEIS. If additional listed species are observed, please contact our office for additional guidance, particularly if listed species are found within the project footprint. If you have questions about our comments, please contact Jeff Zimpfer, Consultation and Habitat Conservation Planning Program (phone: 808-792-9400, fax: 808-792-9581).

Sincerely,

for Loyal Mehrhoff
Field Supervisor

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Loyal Mehrhoff, Field Supervisor
Pacific Islands Fish and Wildlife Office
Fish and Wildlife Service
U.S. Department of Interior
300 Ala Moana Boulevard, Room 3-112, Box 50088
Honolulu, HI 96720

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Mehrhoff:

Thank your for your letter of July 7, 2010 (attached) in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments to the Draft EIS.

Comments: In our 2008 letter (January 7, 2008, Service File 2008-TA-0063), we recommended additional botanical surveys be conducted, as the project impacts are based upon a 1991 survey. An additional botanical survey was conducted in February 2010, but assessed only the utility corridors, and not areas previously surveyed. Of particular concern is the status of Abutilon menziesii, a federally endangered plant. The only known population of A. menziesii on the Island of Hawaii was detected on the property during the 1991 surveys, but was not detected during an additional survey conducted in 2000. However, the seed bank for this species may still persist, and we recommend you not disturb the soil within 500 feet of where any A. menziesii were found. The DEIS states that a botanical survey of the property will be conducted following a period of extensive rainfall. We request that a copy of the report from this survey be submitted to our office. To offset impacts to A. Menziesii, if detected, the developer has proposed to move the plants to a designated 5-acre preserve. We recommend that a management plan the preserve and for A. menziesii be developed.

Response: Regarding the protection of the area of the site where *A. menziesii* had previously been found, this is located within a 5-acre natural preserve set aside by the Applicant. The area of the previous find has been marked off with construction fencing and no development or disturbance is planned for the area of the surrounding 5-acre preserve. Additionally, as noted in the Draft EIS, the Applicant is committed to conduct

a further botanical survey of the area following a period of extensive rainfall to determine if a seed bank or seedlings of the species are still present. A copy of subsequent surveys of this area will be forwarded to the USFWS, as requested. Should this species be located as a result of the subsequent survey of the area, the USFWS will be consulted in the preparation of a management area for the preserve area and copy of the resulting management plan will be provided, as will be noted in Section 3.6 of the Final EIS.

Comment: We recommended surveys for several cave invertebrates, the Kaumana cave cricket (Caconemobius varius), volcanoes cave cricket (Thaumatogryllus cavicola), Doc Bellou cave oliarus planthopper (Oliarus spp.), Pahoa cave oliarus planthopper (Oliarus spp.) be conducted, and the DEIS does not contain reports of these surveys, or mention of potential impacts to these species. We also recommended surveys for the endangered Blackburn's sphinx moth (Manduca blackburni), and the DEIS does not contain a report, or address potential impacts to this species.

We recommend that the aforementioned surveys be conducted prior to completing the FEIS. If additional listed species are observed, please contact our office for additional guidance, particularly if listed species are found within the project footprint.

Response: Regarding your recommendation that the Applicant conduct a survey of the property for the presence of specific cave invertebrates, our understanding is that none of the cave species listed in your letter are either listed or candidate endangered species. Also, there have been several archaeological surveys of the complete property, during which no lava tubes or natural caves were found other than one relatively small and shallow cave, which was used as a burial site. As such, we believe that a survey for the presence of the cave invertebrates would not be justified in this case.

Regarding the Blackburn's sphinx moth *(Manduca blackburni)*, a survey of the property for the presence of this species had not been undertaken because the property was found to be absent of any of the native species that would be supportive of the moth, based on the botanical surveys of the property. More recently, however, the USFWS has noted that the Blackburn's Sphinx Moth may also feed on members of the Solanaceae family, which includes many garden and ornamental plant species, such as tomato (*Lycopersicon esculentum)*, eggplant (*Solanum melongena)*, sweet pepper (*Capsicum)*, and petunia (*Petunia)*, as well as some common roadside plants, such as jimsom weed (*Datura stramonium)* and tree tobacco (*Nicotiana gluaca*). Tree tobacco, in particular, is an aggressive species that is ubiquitous throughout the region and is regularly found along roadsides and newly disturbed areas, such as construction sites. As such, there is the possibility that some tree tobacco would be found on the Project site as development construction progresses. In discussing this issue with representatives of the USFWS and the County Department of Planning, the Applicant has agreed to survey the property for the presence of Blackburn's sphinx moth in association with tree tobacco prior to any further land alteration activities for the Project. Further, if evidence of the Blackburn's sphinx moth is found within the Project site as a result of the survey, the Applicant would work with the USFWS to prepare an appropriate management plan for the protection of this invertebrate species.

We note that the Applicant is committed to the protection and promotion of those native plant species that may be found on the property, including the red ‘ilima and other species that may have been common in the area, and looks forward to working with the USFWS on the preparation of a management plan for the natural preserve area including the development of a possible Safe Harbor Agreement to facilitate the use of the Preserve Area for endangered plant species.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
DEPUTY DIRECTOR - LAND

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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF AQUATIC RESOURCES
74-380B Kealakehe Pkwy.
Kailua-Kona, HI 96740

July 2, 2010

Subject: Draft Environmental Impact Statement for the Villages of Ania Le'a

DAR's primary concern regarding this project is the proposed use of injection wells to dispose of excess treated sewage effluent. The issue of wastewater treatment is addressed in Sections 2.3.9.3, 4.11.2 and Appendix D of the DEIS. As indicated, the development will be constructing its own wastewater treatment plant (WWTP) and will be upgrading one of the existing wastewater treatment plants serving Waikoloa Village so that effluent from both plants can be used to supplement the irrigation needs of the project. The WWTPs would use a membrane bioreactor (MBR) process to treat wastewater at an R-1 tertiary quality level to permit effluent reuse for golf course and landscape irrigation and future construction dust control.

DAR commends the Applicant's commitment to the use of membrane bioreactor technology (MBR). As noted by the EPA the effluent from MBRs contains low concentrations of bacteria, total suspended solids (TSS), biochemical oxygen demand (BOD), nitrogen and phosphorus. This facilitates high-level disinfection and effluents can be readily discharged to surface streams or used for irrigation (*EPA, 2007 Wastewater Management Fact Sheet – Membrane Bioreactors*).

The project site's western-most land is only two miles from the coast line at an elevation of 150-700'. The project is also sited on an area of substantial Submarine Groundwater Discharge (SGD) which flows into Makaiwa Bay and associated coastal fish ponds (*Johnson, 2007 Groundwater Discharge from the Leeward Half of the Big Island, Hawaii*). DAR has very real concerns over the potential impacts of wastewater injection wells on the health of Hawaii's coral reefs. While injection wells used for the subsurface disposal of wastewater, sewage effluent, or surface runoff are subject to environmental regulation and permitting under Hawaii Administrative Rules, Title11, Chapter 23,titled "Underground Injection Control" (UIC), historically there has been little attention or concern paid to the impact of these wells on coastal marine communities.

Monitoring of coral reefs Maui clearly show a correlation between wastewater injections, decreasing coral cover, and increased problems with invasive algae. Recent scientific reports have determined that wastewater from Maui County's injection wells are in fact entering the ocean and negatively impacting coastal resources (Dailer, et al. 2010 *Using d15N values in algal tissue to map locations and potential sources of anthropogenic nutrient inputs on the island of Maui, Hawai'i, USA.* and Hunt, 2009 *Multitracer Approach to Detecting Wastewater Plumes from Municipal Injection Wells in Nearshore Marine Waters at Kihei and Lahaina, Maui, Hawaii).* DAR feels that reduction and/or elimination of wastewater injection would greatly reduce the total nutrient loads on our coral reefs. Potential negative impacts to coastal ecosystems from this project are very real unless there is a strong commitment to eliminate the

sources of ground water nutrient enrichment. We thereby recommend that the project fully implement the wastewater treatment measures (i.e. MBRs) proposed in the DEIS and employ additional measures wherever possible to minimize and eliminate groundwater enrichment or contamination.

William Walsh Ph.D.
Aquatic Biologist

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

William Walsh, Ph.D., Aquatic Biologist
Department of Land and Natural Resources
Division of Aquatic Resources
78-380B Kealakehe Parkway
Kailua-Kona, HI 96740

SUBJECT: THE VILLAGES OF ʻĀINA LEʻA DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Walsh:

Thank you for your memo of July 2, 2010 (attached) to Charlene Unoki, Assistant Administrator, DLNR Land Division (attached), in which you provide your comments to the Villages of ʻĀina Leʻa Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ʻĀina Leʻa Development, LLC, we are responding to your comments.

Comment: DAR's primary concern regarding tlus project is the proposed use of injection wells to dispose of excess treated sewage effluent. The issue of wastewater treatment is addressed in Sections 2.3.9.3,4.11.2 and Appendix D of the DEIS. As indicated, the development will be constructing its own wastewater treatment plant (WWTP) and will be upgrading one of the existing wastewater treatment plants serving Waikoloa Village so that effluent from both plants can be used to supplement the irrigation needs of the project. The WWTP's would use a membrane bioreactor (MBR) process to treat wastewater at an R-1 tertiary quality level to permit effluent reuse for golf course and landscape irrigation and future construction dust control.

DAR commends the Applicant's commitment to the use of membrane bioreactor technology (MBR). As noted by the EPA the effluent from MBRs contains low concentrations of bacteria, total suspended solids (TSS), biochemical oxygen demand (BOD), nitrogen and phosphorus. This facilitates high-level disinfection and effluents can be readily discharged to surface streams or used for irrigation (EPA, 2007 Wastewater Management Fact Sheet – Membrane Bioreactors).

The project site's western-most land is only two miles from the coastline at an elevation of 150-700'. The project is also sited on an area of substantial Submarine Groundwater Discharge (SGD), which flows into Makaiwa Bay and associated coastal fish ponds (Johnson, 2007 Groundwater Discharge from the Leeward Half of the Big Island, Hawaii). DAR has very real concerns over the potential impacts of wastewater injection wells on the health of Hawaii's coral reefs. While injection wells used for the subsurface disposal of wastewater, sewage effluent, or surface runoff are subject to environmental regulation and permitting under Hawaii Administrative Rules, Title11, Chapter 23,titled "Underground Injection Control" (UIC), historically there has been little attention or concern paid to the impact of these wells on coastal marine communities.

Monitoring of coral reefs Maui clearly show a correlation between wastewater injections, decreasing coral cover, and increased problems with invasive algae. Recent scientific reports have determined that wastewater from Maui County's injection wells are in fact entering the ocean and negatively impacting coastal resources (Dailer, et al. 2010 Using d15N values in algal tissue to map locations and potential sources of anthropogenic nutrient inputs on the island of Maui, Hawai'i, USA. and Hunt, 2009 Multitracer Approach to Detecting Wastewater Plumes from Municipal Injection Wells in Nearshore Marine Waters at Kihei and Lahaina, Maui, Hawaii). DAR feels that reduction and/or elimination of wastewater injection would greatly reduce the total nutrient loads on our coral reefs. Potential negative impacts to coastal ecosystems from this project are very real unless there is a strong commitment to eliminate the sources of ground water nutrient enrichment. We thereby recommend that the project fully implement the wastewater treatment measures (i.e. MBRs) proposed in the DEIS and employ additional measures wherever possible to minimize and eliminate groundwater enrichment or contamination.

Response: In response to your comments and concerns regarding of the potential impacts to costal waters from the use of injection wells for the disposal of wastewater effluents, the Villages of ʻĀina Leʻa development does not plan to use injection wells as its primary means for the disposal of the treated effluent from its WWTP. As noted in Section 3.5 of the Draft EIS, the R-1 level treated effluent from the WWTP will be combined with its brackish water source to be used as part of the Project’s landscape irrigation. The DOH regulations, however, require the use of retention ponds and/or injections wells as potential contingency measures for disposal of WWTP effluent. We note that, if used, injection would be only be used for contingency purposes and for limited periods. Additionally, the injection wells would be at an elevation of over 250 feet above mean sea level (ASL), and located over a mile and a half from the coast at the nearest point. Therefore, the potential threat to the coastal ecosystems that you cite in your letter should not be a concern with this development.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

July 15, 2010

Mr. James M. Leonard
J M Leonard Planning, LLC
1100 Ainalako Road
Hilo, HI 96720

DRAFT ENVIRONMENTAL IMPACT STATEMENT
APPLICANT – DW 'ĀINA LE'A DEVELOPMENT, LLC
PROJECT: THE VILLAGES OF 'ĀINA LE'A
TAX MAP KEY 6-8-001:025, 036, 037, 038, 039, AND 040 AND 6-8-002:019

We have reviewed the subject Draft Environmental Impact Statement (DEIS) and have the following comments.

1. Our Department can confirm that the previous applicant for the subject project, Bridge 'Āina Le'a, LLC, had executed a Water Development Agreement ("Agreement") with the Water Board, which established the development of various wells, storage reservoirs, and transmission facilities needed provide potable water for the project.

2. Based on the information provided in the subject DEIS, the estimated average daily potable water demand for the project is approximately 1.32 million gallons per day (MGD) and the estimated average daily capacity of the wells developed pursuant to the Agreement is approximately between 1.61 and 1.96 MGD. Therefore, the applicant's estimated potable water demand is within the anticipated capacity of the water system to be constructed per the Agreement. It shall be noted that the actual capacity of the proposed water system is contingent on approved well pump tests and adequate water quality from the developed wells, as specified in the Agreement.

3. The applicant will be required to submit a Water Master Plan for review and approval, showing the estimated capacity of each well, the size of each proposed storage reservoir, transmission facilities, pressure reducing stations, tank inlet control valves, and any other water system appurtenances required. The Department shall make the final determination of the water system improvements that will be necessary.

4. Construction plans, prepared by a professional engineer licensed in the State of Hawai'i, shall be submitted for review and approval.

Should there be any questions, please contact Mr. Finn McCall of our Water Resources and Planning Branch at 961-8070, extension 255.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

FM:dfg

copy – Mr. Robert Wessels, DW 'Āina Le'a Development, LLC
Planning Department

J M Leonard Planning, LLC

1100 Ainalako Road • Hilo, HI 96720 • Tel (808) 896-3459 • E-mail: jmleonard@mac.com

September 30, 2010

Milton D. Pavao, P.E., Manager
Department of Water Supply
345 Kekūanaō‘a Street, Suite 20
Hilo, HI 96720

SUBJECT: THE VILLAGES OF ‘ĀINA LE‘A DRAFT ENVIRONMENTAL IMPACT STATEMENT: RESPONSE TO COMMENTS
TMKs: (3) 6-8-001: 25, 36, 37 (por.), 38, 39, and 40 (por.) and (3) 6-8-002:19 (por.)

Dear Mr. Pavao:

Thank you for your letter dated July 16, 2010 (attached) in which you provided your comments to the Villages of ‘Āina Le‘a Draft Environmental Impact Statement (EIS). As the planning consultant for the Applicant, DW ‘Āina Le‘a Development, LLC, we are responding to your comments.

We appreciate your providing confirmation of the existing Development Agreement (Agreement) with the Department of Water Supply and that the estimated potable water demand for the Project, as presented in the Draft EIS, is within the anticipated capacity of the planned water system per the Development Agreement. As you note in your letter, verification of the actual capacity of the proposed water system will be contingent on approved well pump tests and adequate water quality from the developed wells, as is specified in the Agreement.

Your letter also notes, of which the Applicant is aware, that a Water Master Plan will be required for your review and approval, in addition to the approval of construction plans, prepared by a professional engineer licensed in the State of Hawaii.

Thank you for your review and comments to the Draft EIS. Your letter and this response will be included in the Final EIS.

Sincerely,

James M. Leonard, AICP

c: Bob Wessels, DW ‘Āina Le‘a Development, LLC
Steve Dunnington, DW ‘Āina Le‘a Development, LLC

12 REFERENCES

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