

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Office of Conservation and Coastal Lands
Honolulu, Hawaii

Board of Land and Natural Resources
Department of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

FILE NO.: CDUA KA-3454
REF: OCCL: MC
Acceptance Date: February 11, 2008
180 Exp. Date: August 9, 2008

July 25, 2008

REGARDING: Landscaping, Trailwork, and Roadwork

APPLICANT: Kukui`ula Development Corporation LLC
PO Box 280, Kōloa, Kaua`i 96756

AGENT: Frances Yamada, Wilson Okamoto Corporation
1907 S. Beretania St., Suite 400, Honolulu, HI 96826

LOCATION: Kōloa, Kaua`i

TMK: (4) 2-6-02:12 and 2-6-03:3 & 20 and portions of Lāwa`i Road.

AREA OF USE: Approximately 6.4 acres

PROJECT AREA: 10 acres

SUBZONE: Limited

DESCRIPTION OF AREA:

The proposed project area runs along the makai side of Lāwa`i Road in the Kōlo`a District of Kaua`i, between Spouting Horn Park and the National Tropical Botanical Garden (NTBG). A portion of the project area continues along the NTBG Tram Road. **Exhibit 1** shows the Tax Map Key parcels involved in the proposal. The project area is in the Limited Subzone of the State Land Use Conservation District. **Exhibit 2** shows the Conservation District boundaries in the area.

Approximately 8.8 acres of the project area are owned by the applicant; the remaining 1.2 acres include the County-owned segment of Lāwa`i Road.

The project area consists of a rocky coastline vegetated primarily by weedy, alien species. Dominant species observed by OCCL staff on a site visit were ironwood (*Casuarina equisetifolia*), prickly pear cactus (*Opuntia ficus-indica*), the highly invasive Guinea grass

(*Panicum maximum*), pencil tree (*Euphorbia tirucalli*), and aloe (*Yucca aloifolia*). There was minimal canopy, and the scattered ironwoods provided the only scarce shade. Ironwoods are aleopathic – their roots produce an herbicide that kills other plant life – and the ground beneath the ironwoods was barren. The pencil trees, whose sap is caustic, formed dense impenetrable thickets.

The few natives found are herbaceous species such as 'uahloa, (*Waltheria indica* var. *Americana*); 'ihi'ae, or woodsorrel (*Oxalis* sp.); pa'u o hi'iaka, or morning glory (*Jacquemontia ovalifolia*); and 'ilima papa (*sida fallax*).

There is a nesting colony of 'ua'u kani, or wedge tailed shearwaters (*Puffinus pacificus*) in the project area. Although none were observed during surveys, the area is also a flyover area for the 'ua'u, Hawaiian petrel (*Pterodroma sandwichensis*); 'a'o, or Newell's Shearwater (*Puffinus auricularis newelli*); and 'ope'ape'a, or Hawaiian hoary bat (*Lasiurus cinereus semotus*),

Archaeological surveys have located three historic sites within the project area: two rock shelter caves that appear to have been looted, and a remnant of a coastal trail.

The area mauka of the project area is a former plantation that is scheduled for resort development. A golf course associated with the proposed 1002-acre Kukui'ula Development runs along the Conservation District perimeter.

The area is currently used by fishermen, 'opihi pickers, and gatherers. The rocky cliffs limit ocean access. Bikers and pedestrians also use Lāwa'i Road. Trams from the Botanical Garden use it to access the gardens.

Exhibit 3 (five pages) shows photographs from the project area.

PROPOSED PROJECT:

The applicant proposes to undertake trail construction, roadwork, and landscaping to 6.4 acres of land. The project is part of a larger pedestrian and bicycle trail system that the applicant is developing as part of the adjacent Kukui'ula Development. The proposed improvements are designed to fulfill Condition No. 15 f) of Zoning Ordinance No. M-2004-370 for the development¹.

The proposal involves:

- developing a 1700-foot linear turf-grass pedestrian trail on the makai side of Lāwa'i Road;
- developing three new gravel parking areas within the makai shoulder of the Lāwa'i Road right-of-way;

¹ The condition states: *The Applicant shall provide public pedestrian access easements to the shoreline areas west of Spouting Horn Park owned by the Applicant consistent with the Project's Conceptual Trails Master Plan*

- clearing non-native and invasive species in the rocky areas adjacent to and makai of Lāwa`i Road and the NTBG Tram Road;
- planting indigenous and Polynesian-introduced species in the makai areas;
- maintaining the vegetation along the mauka side of Lāwa`i Road and the Tram Road; and
- resurfacing a 700-foot asphalt section of the paved NTBG Tram Road.

The proposal calls for the development of a 16,000 foot (approximately 0.3 acre) test area in the Western portion of the project to test the proposed vegetation removal and replanting schemes.

The applicant will be dedicating easements to the County for the pedestrian and bike trail network within the development, including the segment covered in this application. The applicant will be responsible for the long-term maintenance of the network.

The pedestrian trail would run adjacent to the pavement's edge, and would range from four to eight feet in width. The trail will start at Spouting Horn and run for 1700 feet. The proposal calls for a turf grass trail, but leaves the option open for a gravel trail if long-term maintenance becomes an issue. **Exhibit 4** shows a cross-section of the trail. A future trail will run mauka of Lāwa`i Road and connect this pedestrian trail to the adjacent Kukui`ula development.

The applicant will build three new gravel parking areas, which will provide for parking for ten vehicles total. The proposed locations are currently being used for parking along the unpaved shoulder along Lāwa`i Road. Low, single "no parking" signs will be placed strategically along the makai sides of the trail to discourage vehicles from parking on the trail.

The clearing of invasive species will occur within a 2.8 acre section extending along the length of the coastal lands adjacent to and makai of Lāwa`i Road and the Tram Road. The makai limits of the clearing will extend from between fifteen and 100 feet from the right of way. The applicant removed twenty dead ironwoods in November, 2005 with the approval of DLNR.

Adjacent to this the applicant would like to remove select large invasive tree species from an approximately three acre area.

The applicant proposes to re-vegetate this area with indigenous and Polynesian-introduced shrubs and groundcover. Proposed plants include naio papa, or bastard sandalwood (*Myoporum sandwicense*), `akoko (*Euphorbia spp.*); pa`u o hi`iaka, or morning glory (*Jacquemontia ovalifolia*); `ilima papa (*sida fallax*); and pōhinahina, or beach vitex (*Vitex ovata*).

In addition to this, the applicant proposes to remove select large invasive trees from three acres in areas makai of the main clearing and in areas mauka of the road.

Conservation of the three archaeological areas will take the form of avoidance and protection. All are outside the project's work area.

The work will commence in January, 2009 and be completed by March 2011. The improvements will occur in three phases:

First Phase: January-March 2009

Construct a 16,000 square-foot test area within the Western portion of the project site. The applicant will coordinate with the State DLNR, OCCL the County, and other appropriate agencies to review the results of this test. The construction portion of this and each subsequent phase is scheduled to be completed by March, prior to the return of the wedge tailed shearwaters.

Second Phase: December 2009-March 2010

Construction of the improvements to the west of the NTBG gate.

Third Phase: December 2010-March 2011

Construction of the improvements to the east of the NTBG gate.

The use of large equipment will only occur during the initial stages of the project during vegetation clearing and the hauling of green waste off site. Hand tools and chainsaws will be used during the clearing. On-going maintenance will include weekly work on the turf-grass trail and quarterly removal of invasive vegetation. Fertilizer will be applied by injecting bio-fertilizer into the irrigation system, which should result in minimal fertilizer runoff.

The applicant is not proposing any grading activities. There will be some ground disturbance along the trail route in order to prepare the soil for the turf grass, and a permanent below-grade 3-inch irrigation line will run from the Kukui`ula Development to the trail. A temporary above-ground drip irrigation system will be used on the re-vegetated areas.

AGENCY COMMENTS:

The CDUA and Draft Environmental Assessment were referred for review and comment to the DLNR – Division of Forestry and Wildlife, Historic Preservation Division, Land Division, Division of Aquatic Resources, Division of Conservation and Resource Enforcement, and Na Ala Hele; the State Department of Health Environmental Management Division; the County of Kaua`i Department of Planning; the Kaua`i Invasive Species Committee; the National Tropical Botanical Garden; The Kaua`i Group Sierra Club; and the County of Kaua`i Open Space Commission.

A copy of the CDUA and DEA were available for review at the Līhu`e Public Library .

A notice of the application was placed in the Office of Environmental Quality Control's *Environmental Notice* on February 23, 2008. OCCL issued a FONSI and noticed this in the May 8, 2008 edition.

The following comments were received:

DLNR Historic Preservation Division (HPD)

HPD believes that no historic properties will be affected by this undertaking as previous grubbing and grading has altered the land.

HPD also notes that they had previously reviewed this project, and that mitigation work has not been completed. A preservation plan as reviewed and approved by HPD for the three archaeological sites; HPD is awaiting implementation to verify if the plan has been completed.

Applicant Response

The applicant acknowledges that mitigation has not been completed as the Department is awaiting implementation of the approved preservation plan. In the event that historic resources, including ancestral iwi, are uncovered, construction activities will stop in the immediate area and HPD will be notified.

DLNR – Land Division

No comments

Department of Health, Clean Water Branch (CWB)

CWB notes that any project must meet the State's antidegradation policy, which requires that existing uses and the level of water quality necessary to protect the existing use be maintained; and the State's water quality criteria.

CWB also states that the project is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters. For some discharges (listed by CWB in their letter) the applicant can submit a Notice of Intent (NOI).

Applicant Response

The applicant acknowledges and will comply with the requirements of the Department.

US Department of the Interior, Fish and Wildlife Service (Service)

The Service notes that, because no lighting is being proposed with this project, there will probably be little impact on the species that use the area as a flyover. However, they are concerned with the potential impact on the nesting colony of wedge tailed shearwaters.

The Service feels that the DEA did not adequately address the protection of this colony, and notes that the major ground work was scheduled to occur between September and November 2008. This would place the re-vegetation activities into direct conflict with the breeding season, which runs from March to mid-November.

The Service recommends amending the conditions of the permit to read:

Prior to initiating removal of the existing vegetation and prior to re-vegetation, a qualified biologist will be retained by the Applicant to survey the Project Site to ascertain the location and number of wedge tailed shearwater burrows that may be

present. These activities will not be initiated until after the wedge tailed shearwaters have fledged in late November.

The Service would support the Environmental Assessment's conclusions if this recommendation is included.

Applicant Response

The applicant acknowledges that there will be no artificial lighting, and therefore will not impact the Newell's shearwater or the Hawaiian petrel.

The applicant will amend the construction schedule so that each active phase of the project occurs between January and March, and that activities will cease during the wedge tailed shearwater nesting season. Long term maintenance will also take the nesting season into consideration.

During the breeding season a qualified biologist will map the seabird nesting colonies that may be present within the project area each year. The boundaries will be delineated and staked into the ground, and maintenance activities will be restricted in these areas until the birds have fledged.

The applicant amended the final EA to reflect the above comments, and will work with DLNR and the Service to develop a wedge tailed shearwater colony management plan.

The applicant believes that the project will be a net benefit to the colony.

DLNR – Division of Forestry and Wildlife (DOFAW)

DOFAW provided the following recommendations:

- That a survey of wedge tailed shearwaters be conducted by a qualified biologist during 2008 to scientifically delineate where the protected seabirds are nesting both mauka and makai of the existing road;
- That night time construction activities be avoided during the nesting season;
- That vegetation removal and planting should be avoided during the nesting season;
- That a ten-foot buffer of native vegetation be established on the mauka side of the wall to minimize seabird disturbance from golf carts;
- That the project implement avoidance and minimization measures such as seabird awareness training to workers and the establishment of a seabird rescue protocol.

Applicant Response

*Most of these issues were discussed in the response to the US Fish and Wildlife Service. In addition, the applicant will establish a ten-foot buffer consisting of naupaka (*Scaevola sericea*), beach heliotrope (*Tournefortia argentea*), and true kamani (*Calophyllum inophyllum*) on the mauka side of the rock wall fronting the 15th green of the proposed golf course². The applicant*

² OCCL is encouraged by this response, but notes that this area lies outside the Conservation District.

further agrees to have all personnel associated with the project attend a seabird awareness program, and they will establish a seabird rescue protocol for the construction and maintenance phases of the project.

Sierra Club, Kaua'i Group

The Sierra Club provided extensive commentary on the proposal. The Group concludes that the project will have a significant effect on the environment as:

- There will be a loss of a self-supporting ecosystem established by kama'aina families;
- Removing shade trees will make it more uncomfortable for local families to enjoy the coastline;
- It conflicts with the State's environmental policies by removing naturalized species with historic value, plants low-growing species, and irrigates and fertilizes sensitive shoreline areas;
- It will affect the social welfare of the community;
- The fertilizer will affect recreational users who have chemical sensitivities;
- The significant population increase caused by the Kukui'ula Development will degrade the site;
- Water resources will be diverted for irrigation and degrade the environment;
- This "hidden gem" will be exposed at the same time as there is an influx of new residents and vacation-home owners;
- The CDUA does not discuss the endangered Newell's shearwater;
- The increase in traffic and decrease in vegetation will affect ambient noise levels; and
- Plants that stabilize the soil will be removed in a flood zone.

Applicant Response

The applicant believes that replacing invasive species with a native species will have a positive impact on the community and on the environment.

Given the extensive nature of both the Sierra Club's comments and the applicants response, OCCL has opted to include both in their entirety as Exhibit 5.

Office of Hawaiian Affairs (OHA)

OHA comments that it is unclear if public access to the project area will be restricted or prevented while the proposed improvements are occurring. OHA seeks assurances that the cultural practices occurring in the area are not impacted.

OHA applauds the efforts to remove alien vegetation from portions of the project area and the replanting with indigenous and Polynesian-introduced species. However, OHA remains unconvinced that there will be no side effects from the action. OHA urges caution in the use of spray-on herbicide, and wishes to know if the applicant plans to use herbicide in the upkeep and maintenance of the area.

OHA would also like to know of alternatives to the turf grass, which will require extensive maintenance, irrigation, fertilizer, and herbicide use.

OHA urges the applicant to insure that the trail does not fix or harden the shoreline in any way, and that the trail route be designed to a rolling contour that avoids the fall line of flowing water.

Applicant Response

The project improvements will be constructed in phases, so there will be continued recreational use and public access of the site. The applicant states that the project will enhance recreational and traditional uses by providing pedestrian access to the area.

In the event that historic resources, including ancestral iwi, are uncovered, construction activities will stop in the immediate area and HPD will be notified.

Fertilizer to the turf grass trail and new vegetation will be applied by injecting it into the irrigation system, which should largely eliminate surface runoff. Herbicides will be applied to cut vegetation with a brush- or wipe-on technique, minimizing drift overspray. The herbicides will be EPA certified for use in sensitive areas.

The applicant will remove approximately 55 ironwoods and 50 pencil trees. The removal of these non-natives will help to foster a plant community that is more conducive to users of the area and will help to restore a more appropriate native coastal ecosystem. The applicant has added three more tree species, discussed above, to the native plant palette.

The drought tolerant "seashore paspalum" will be used on the pedestrian trail. A light application of fertilizer will be applied to the trail once or twice a year. No herbicides will be used on the trail. Should long-term maintenance become a concern the applicant proposes the retaining the option to convert this into a granular trail.

Runoff mitigation measures will be addressed with the DOH permits, and best management practices will be used during construction.

The applicant does not believe that the trail will harden or fix the shoreline, and assures OHA that the trail will follow the natural contours of the land.

Office of Conservation and Coastal Lands

In our acceptance letter OCCL raised three concerns that we wanted addressed by the applicant:

- OCCL noted that the re-vegetation scheme utilizes groundcovers and herbaceous shrubs, but no native trees. While all the current trees are invasive and nuisance species, they do provide possible ecological functions (e.g. erosion prevention, providing nesting areas for shorebirds, providing a canopy, etc.). OCCL would like to see a discussion on whether there are any indigenous trees that would be appropriate to include in the re-vegetation scheme.

- As discussed in the application, the shoreline area is used by fishermen and gatherers. OCCL would like to know whether these recreational users rely on defined shoreline access points, and if so where those paths are and how they would be affected by the new pedestrian path.
- The application states that work would be scheduled around the nesting season for the 'u'au kani. OCCL would like to see a more detailed work schedule detailing what construction and maintenance activities will and will not occur during specific times.

Applicant Response

The landscaping plan was amended to include three coastal tree species: hala, hau, and naio. These trees will have the same ecological function as the existing non-native trees in the project area.

There are currently four defined shoreline access points used by the public that originate from the makai edge of Lāwa`i Road. Each of these areas is located near areas used unofficially for parking along the mauka edge of Lāwa`i Road, except for one that is located east of the NTBG gate. The shoreline access points are shown on the site plan, and will not be impeded by the project.

As discussed above, the applicant adjusted the work schedule to accommodate the colony's breeding season.

OCCL also received the following comments from community members after the Final Environmental Assessment was published:

Ms. Barbara Childers, Kekaha

Ms. Childers is concerned with runoff from the new development, and points out that more vegetation will be needed along the coast to minimize soil and water runoff during hard rains. She is also concerned about the loss of trees for erosion and shade control.

Ms. Marge Freeman, Kapa`a

Ms. Freeman favors the existing mix of plants as is, and points out that this mix is not found anywhere else. She does not favor the leveling of the vegetation in favor of new, small native plants. She points out that the site now offers solitude, lovely views, shelter, shade, and protection for fishermen; removal of the vegetation will result in a bare landscape. She feels that the true reason for the project is to allow people to see the ocean from the development, or without having to leave their cars.

OCCL was notified that Kaua`i Historic Preservation Review Commission had comments on the proposal, but had not received comments prior to the writing of this report.

ANALYSIS:

Following review and acceptance for processing, the applicant was notified, by letter dated February 12, 2008 that:

1. The proposed use was an identified land use in the Limited Subzone of the Conservation District, pursuant to Hawai'i Administrative Rules (HAR) §13-5-23, *Identified Land Uses in the Limited Subzone*, L-4 LANDSCAPING AND REMOVAL OF NOXIOUS PLANTS; that this use required a permit from the DLNR; and that the final decision as to whether to grant or deny the permits lay with the Board of Land and Natural Resources (BLNR).
2. Pursuant to HAR §13-5-40, a Public Hearing was not required;
3. Pursuant to HAR §13-5-31 *Permit applications*, the permit required that an environmental assessment be carried out. The draft environmental assessment (DEA) for the project was submitted to the Office of Environmental Quality Control (OEQC) and published in the February 23, 2008 issue of the *Environmental Notice*. A Finding of No Significant Impact (FONSI) was published in the *Environmental Notice* on May 8, 2008. The 30-day challenge period for the FONSI ended June, 2008 without a challenge.

§13-5-30 CRITERIA:

The following discussion evaluates the merits of the proposed land use by applying the criteria established in HAR §13-5-30.

- 1) *The proposed use is consistent with the purpose of the Conservation District.*

The objective of the Conservation District is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare.

The proposed use is an identified land use in the Conservation District. Invasive and nuisance species will be replaced with appropriate indigenous and Polynesian-introduced species, and the applicant will be responsible for the on-going maintenance of the site.

- 2) *The proposed land use is consistent with the objectives of the Subzone of the land on which the use will occur.*

The objective of the Limited Subzone is *to limit uses where natural conditions suggest constraint on human activities.*

Staff notes that the area is currently used by pedestrians, and also provides shoreline access and ocean-entry points for fishermen and other recreational users. Staff does not believe that the project alone will increase the intensity of use of the area. The trail and landscaping will promote transient use of the area, and may lead to an increase in pedestrians and gathering; staff is of the opinion that these uses are consistent with the objectives. Staff does not think that a large development mauka of the project area will likely lead to an increase in activities on the parcel; however, this increase will occur irrespective of the outcome of this proposal.

- 3) *The proposed land use complies with the provisions and guidelines contained in Chapter 205A, HRS entitled "Coastal Zone Management", where applicable.*

Staff is of the opinion that the project complies with the policies and objectives of the Coastal Zone Management Program. The removal of invasive species and the replanting of native species should have a positive affect on the local ecosystem, and the trail network fits in with the recreational provisions of the CZM program.

The County of Kaua'i Planning Department approved a Special Management Area Use Permit (SMA (U)-2008-11) for the project on March 11, 2008.

- 4) *The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.*

Staff notes that the proposed project will not have any adverse impact to existing natural resources within the surrounding area. There are few native species at the site, construction activities will not occur during shearwater breeding season, and the project will avoid identified archaeological sites.

The pedestrian path could lead to an increase in recreational use of the area; staff is of the opinion that this will not have a significant impact on the existing natural resources.

- 5) *The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.*

The surrounding area is undergoing a transition from plantation lands to resort development. The land uses on the subject parcels will remain low impact.

Staff is of the opinion that a turf or gravel pedestrian trail is an appropriate use for the rocky shoreline areas.

- 6) *The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable.*

Staff notes the project has the potential to enhance the natural beauty of the subject parcel. Staff has some concerns that more trees are being removed than being planted; this will be addressed in the Discussion.

- 7) *Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.*

The proposed project does not involve subdivision of Conservation District land.

- 8) *The proposed land use will not be materially detrimental to the public health, safety and welfare.*

The proposed action will not be materially detrimental to the public health, safety and welfare. Staff concurs with the applicant.

DISCUSSION:

The applicant is requesting a permit to develop a pedestrian trail along the makai side of Lāwa'i Road and the NTBG Tram Road, and to remove invasive species from the area and to landscape with indigenous and Polynesian-introduced species. Associated work includes repaving a 700-foot section of the NTBG Tram Road and developing three gravel parking areas in the Lāwa'i Road right-of-way.

The applicant proposes to undertake this project in conjunction with the 1002-acre Kukui'ula development located mauka of the project area, on former McBryde Sugar Company plantation lands. This development calls for the creation of 1500 residential units, a resort, an 18-hole golf course, recreational and commercial facilities, 75 employee housing units, and 60 'affordable housing units.' This development is one of many large-scale projects in progress that is transforming southern Kaua'i into a resort-dominated region.

Condition No. 15 f) of Zoning Ordinance No. PM-2004-370 for the Kukui'ula Development states that *The Applicant shall provide public pedestrian access easements to the shoreline areas west of Spouting Horn Park owned by the Applicant consistent with the Project's Conceptual Trails Master Plan.* The project area is one part of the Conceptual Path and Trail Plan that was developed in accordance with this condition. The wider trail system is shown in **Exhibit 6**.

There has been some community opposition to the proposed project. The opposition revolves around three interrelated complaints: 1) the project's association with the large-scale developments that are occurring in the Kōloa and Po'ipū area; 2) a belief that the proposal values scenic views over ecological functions; and 3) a belief that the current vegetation was of historic significance.

OCCL acknowledges residents' concerns with the impact of development upon the local community. However, staff notes that DLNR's jurisdiction in land use does not extend beyond the boundaries of the Conservation District. In the project area the Conservation District lands are all makai of Lāwa'i Road, while the developments are mauka of the road. In evaluating this proposal, OCCL looked at the project in and of itself and not on the larger developments in the area.

After assessing the project, OCCL did not find that the proposed roadwork or landscaping would increase development pressure on the land, nor increase the public use of the land. Staff notes that the trail-work and landscaping is designed to mitigate some of the effects of the on-going development in the region; and to provide a potential benefit to the community at large, and not just to residents of the new development.

Some residents complained that the initial proposal would replace too many mature trees with shrubs and groundcover. The Sierra Club representative stated that the project was not so much a restoration project as a plan to *open up views to the ocean for the proposed golf course across the street*.

OCCL shared this concern, and in our original acceptance letter requested that more indigenous trees be incorporated into the landscaping plans. OCCL noted that, though the current trees are invasive and nuisance species, they do provide a variety of ecological functions; these include but are not limited erosion prevention, providing nesting areas for shorebirds, and providing a canopy.

The applicant amended their original proposal to include hala, hau, and naio in the plan. OCCL appreciates this³, but notes that the revised plan includes approximately 23 new trees, but the removal of over 50 ironwoods and 50 pencil trees.

Exhibit 7 shows the Conceptual Site Plan, which details the landscaping scheme. OCCL remains concerned that the plan appears to focus more on beautification and the creation of a view-plane for the resort than on the restoration of the coastal habitat; it has the appearance of a well-tended native garden rather than a functioning ecosystem. OCCL is of the opinion that landscaping in the Conservation District should move beyond planting individual native trees and shrubs, and should aim instead for the development of a more complete ecosystem.

In order to achieve this groundcover, shrubs, and canopy should be co-located rather than each assigned to its own parcel. OCCL is of the opinion that the diversity of proposed plantings needs to be *significantly* increased, and that many more trees should be included in the plans.

The applicant is proposing to construct a 16,000 square-foot test area as the first phase of the project, and has proposed reviewing the results of the test with DLNR, County, and other relevant agencies prior to proceeding with the second phase. *OCCL will recommend that a condition of the permit be that the applicant get OCCL approval for the landscaping after the testing phase is complete and prior to the implementation of phases two and three.* The applicant should understand that OCCL approval will be based upon how well the revised landscaping plans incorporates an ecosystem-based approach.

The third complaint was that the ironwoods and other vegetation were planted by Robert and Greg Allerton in the 1940's and were thus of historic importance and should not be removed. OCCL notes that the nearby 100-acre National Tropical Botanical Garden was formed out of the old Allerton Estate, and that this was the site of the Allerton's more significant landscaping. OCCL does not accept that the ironwoods, pencil trees, and other scrub vegetation along Lāwa`i Road share the same historical significance as the Garden.

There is a nesting colony of `ua`u kani, or wedge tailed shearwaters (*Puffinus pacificus*) in the project area. The ground-burrowing birds nest from March to November. The applicant has

³ Although OCCL notes that hau (*Hibiscus tiliaceus*), while valuable for indigenous Hawaiians, is a plant that requires extensive maintenance lest it form an impenetrable monotypic thicket; we question whether this is the best choice as a landscaping plant.

proposed to undertake a number of measures to protect against adverse impacts to the colony, including not undertaking vegetation removal and planting during the breeding season, developing a colony management plan with the US Fish and Wildlife Service, requesting that personnel involved in the project participate in seabird awareness program, establishing a seabird rescue protocol.

The US Fish and Wildlife Service has recommended that a biologist survey the site for nesting burrows prior to the start of vegetation clearing and re-vegetation, and that these activities do not commence until the shearwaters have fledged in November. *OCCL supports this, and will recommend that it be made a condition of the permit.*

OCCL will also recommend a further condition be that the applicant provide a copy of the Colony Management Plan and the Seabird Rescue Protocol prior to undertaking any ground disturbance.

The applicant proposes passive mitigation measures for protecting the area's archaeological sites, with a focus on avoidance. The remnants of the coastal trail occur outside the project area, and no stabilization or restoration of the trail is being proposed. A 20-foot buffer zone has been designated on either side of the trail during the vegetation removal phase of the project. The rock shelters / caves are also well outside the project area, and near the cliff bluffs. A 20-foot buffer zone will also be maintained around both of these caves during re-vegetation. An archaeological monitor will be on-site during vegetation removal activities in the buffer zone.

OCCL will recommend that having the monitor be on-site during work in the buffer zone be made an official condition of the permit.

Concerns were raised by OHA regarding the use of turf grass for the 1700-foot long trail. The turf grass will require a level of maintenance, and a corresponding level of impact, that a gravel trail will not have. As OHA pointed out in their comments, a turf grass trail will require an irrigation system and the regular application of fertilizer. OCCL also notes that the proposed grass, Seashore paspalum (*Paspalum vaginatum*), received a "high" risk score as an introduced, invasive species in Hawai'i from the Pacific Islands Ecosystems at Risk (PIER) program⁴. *OCCL recommends that the plan be amended to incorporate a loose-gravel rather than turf-grass trail.*

Therefore, staff recommends the following:

RECOMMENDATION:

That the Board of Land and Natural Resources APPROVE CDUA KA-3445 for the proposed trailwork, roadwork, and landscaping at Kōloa, Kaua'i, TMKs (4) 2-6-02:12, 2-6-03:3, and 2-6-03:20, and portions of Lāwa'i Road and the NTBG Tram Road, subject to the following terms and conditions:

⁴ The PIER database and assessment can be accessed at www.hear.org/pier/index

1. The applicant shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, State and county governments, and the applicable parts of Section 13-5-42, HAR;
2. The applicant, its successors and assigns, shall indemnify and hold the State of Hawai'i harmless from and against any loss, liability, claim or demand for property damage, personal injury or death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors and agents under this permit or relating to or connected with the granting of this permit;
3. The applicant shall comply with all applicable Department of Health administrative rules. Particular attention should be paid to Hawai'i Administrative Rules (HAR), Section 11-60.1-33, "Fugitive Dust" and to Chapter 11-46, "Community Noise Control," and Chapter 11-54 National Pollutant Discharge Elimination System;
4. Any work or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have been approved by the Department;
5. The applicant shall notify the Office of Conservation and Coastal Lands in writing prior to the initiation, and upon completion, of the project;
6. Where any interference, nuisance, or harm may be caused, or hazard established by the use, the applicant shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard;
7. The applicant will use Best Management Practices for the proposed project;
8. The applicant will give preference towards using native plants all landscaping work;
9. The applicant understands and agrees that this permit does not convey any vested rights or exclusive privilege;
10. In issuing this permit, the Department and Board have relied on the information and data that the applicant has provided in connection with this permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Department may, in addition, institute appropriate legal proceedings;
11. In the event that unrecorded historic remains (i.e., artifacts, or human skeletal remains) are inadvertently uncovered during construction or operations, all work shall cease in the vicinity and the applicant shall immediately contact the State Historic Preservation Division;
12. The applicant shall provide documentation (i.e. book/page document number) that this approval has been placed in recordable form as a part of the deed instrument, prior to submission for approval of subsequent construction plans;

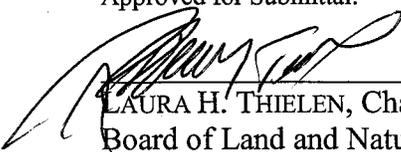
13. The applicant will contact OCCL for any permitting requirements should they change the scope of the project;
14. Prior to removal of the existing vegetation and re-vegetation, a qualified biologist will be retained by the Applicant to survey the Project Site to ascertain the location and number of wedge tailed shearwater burrows that may be present. These activities will not be initiated until after the wedge tailed shearwaters have fledged in late November.
15. The applicant will provide OCCL with a copy of the Shearwater Colony Management Plan and the Seabird Rescue Protocol prior to initiating removal of the existing vegetation and prior to re-vegetation;
16. Before proceeding with any work authorized by the department or the board, the applicant shall submit four copies of the construction plans and specifications to the chairperson or his authorized representative for approval for consistency with the conditions of the permit and the delectations set forth in the permit application. Three of the copies will be returned to the applicant. Plan approval by the chairperson does not constitute approval required from other agencies.
17. The applicant will present its findings from the first phase of the project, the 16,000 square-foot testing area, to the public and relevant agencies; the applicant will revise the landscaping plans based upon the results of the testing and secure OCCL approval prior to proceeding with the second and third phases of the project.
18. The applicant will have an archaeological monitor on-site during vegetation clearing and replanting in the 20' buffer zones surrounding the three known archaeological sites;
19. The applicant will amend the proposal to include a gravel rather than a turf-grass trail;
20. Other terms and conditions as may be prescribed by the Chairperson; and
21. That failure to comply with any of these conditions may render this Conservation District Use Permit null and void.

Respectfully Submitted,

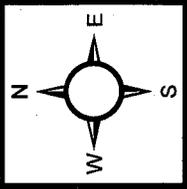
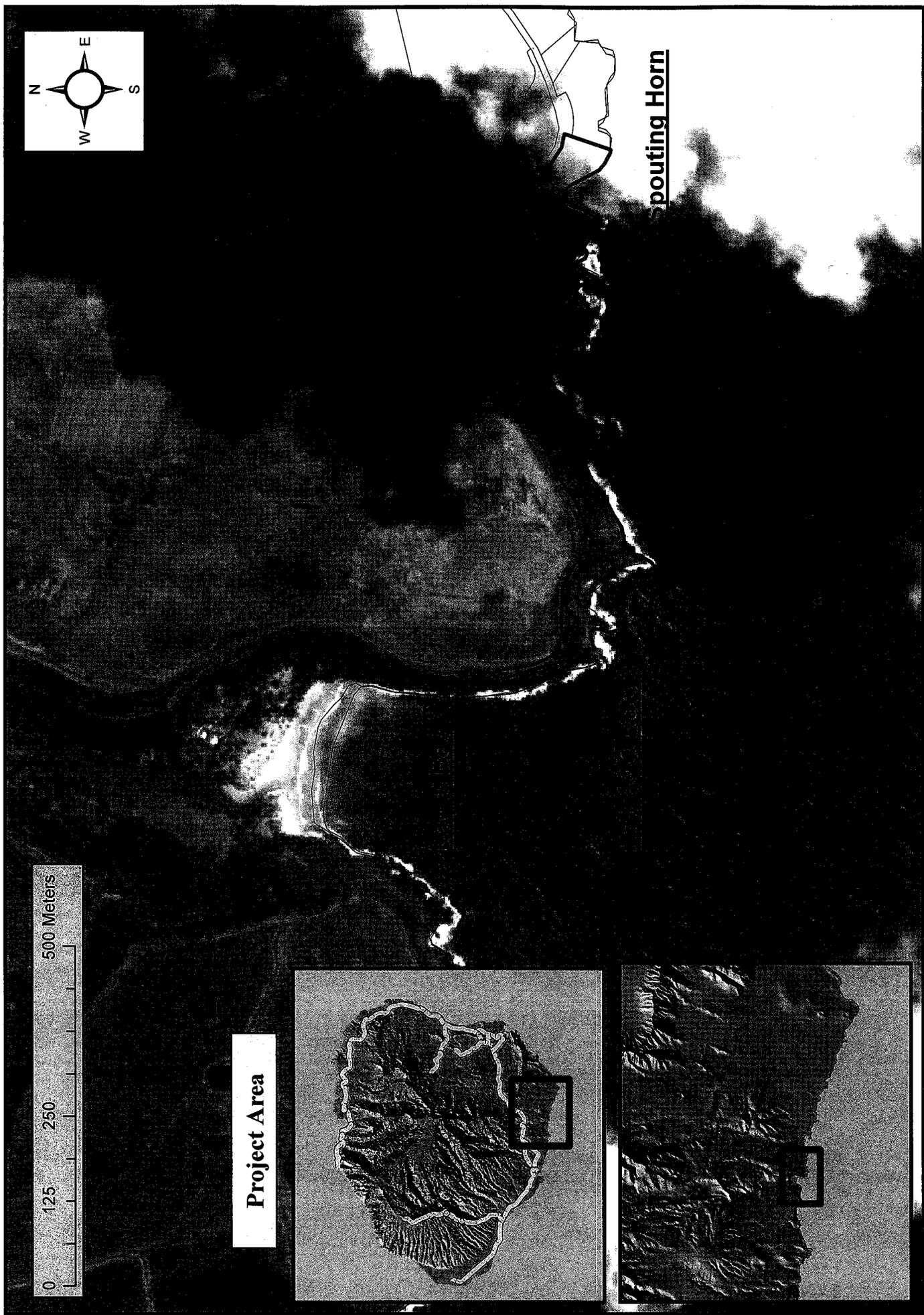


Michael Cain
Staff Planner

Approved for Submittal:



LAURA H. THIELEN, Chairperson
Board of Land and Natural Resources

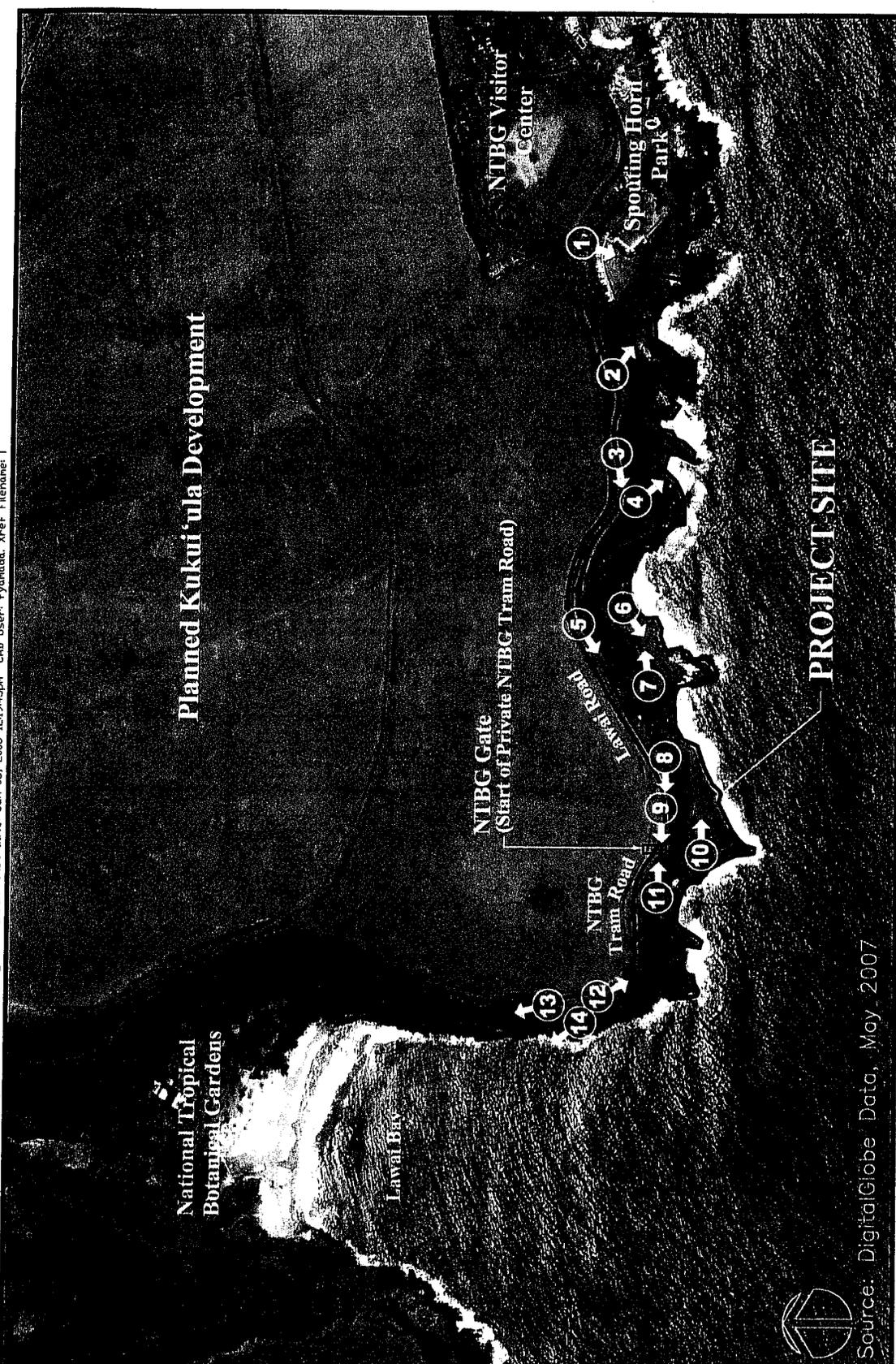


Project Area

Spouting Horn

Conservation District Subzones Along Lawai Road





Planned Kukui'ula Development

National Tropical Botanical Gardens

Lawai Bay

NTBG Visitor Center

Spouting Horn Park

NTBG Gate (Start of Private NTBG Tram Road)

Lawai Road

NTBG Tram Road

PROJECT SITE



Source: DigitalGlobe Data, May 2007

CONSERVATION DISTRICT IMPROVEMENTS KUKUI'ULA

Koloa, Kauai, Hawaii

Key Map Project Site Photos

Prepared for:
Kukui'ula Development Company (Hawaii), LLC

Prepared by:
Wilson Okamoto Corporation



2. Makai view of the coastline within the eastern portion of the Project Site looking southeast.



3. View of Lawai Road looking west.



1. View looking makai at the northeastern boundary of the Project Site (defined by the tall hedge planting to the right) from Spouting Horn Park (Spouting Horn Park vendors to the left).



4. Makai view of the coastline within the eastern portion of the Project Site looking southeast.



1-5-07

5. View of Lawai Road looking west.



1-5-07

7. View of the coastline within the central portion of the Project Site looking east.



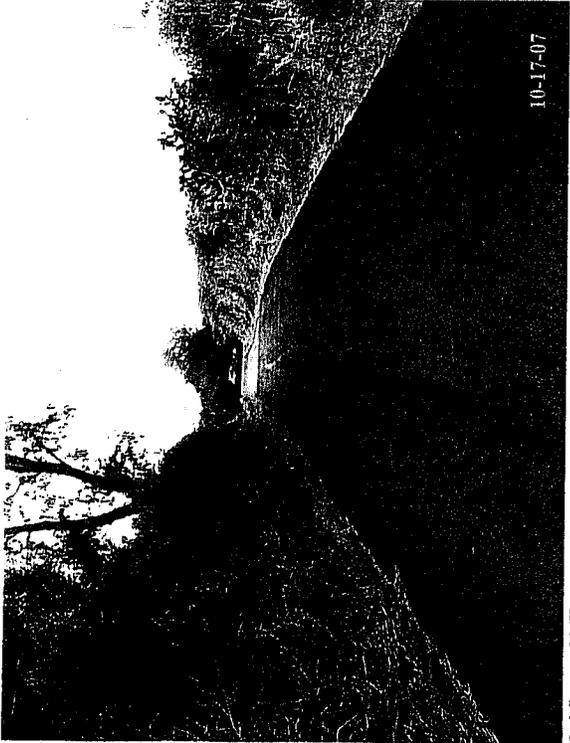
1-5-07

6. View of the coastline within the central portion of the Project Site looking west.



1-5-07

8. View of the western end of Lawai Road and the NTBG gate looking west. The NTBG tram road is located just beyond the NTBG gate.



9. View of NTBG gate from end of Lawai Road looking west.

10-17-07



11. View of the NTBG gate from the NTBG tram road looking west.

10-17-07

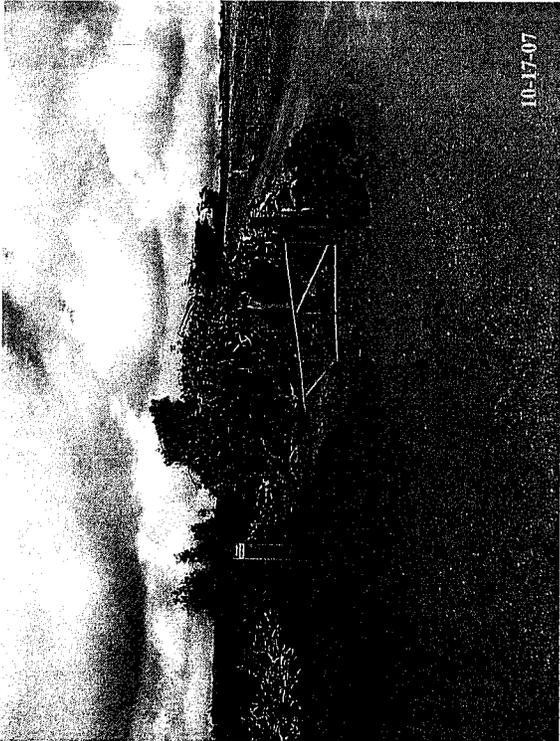


10. View of the historic coastal trail within the central portion of the Project Site (looking east).



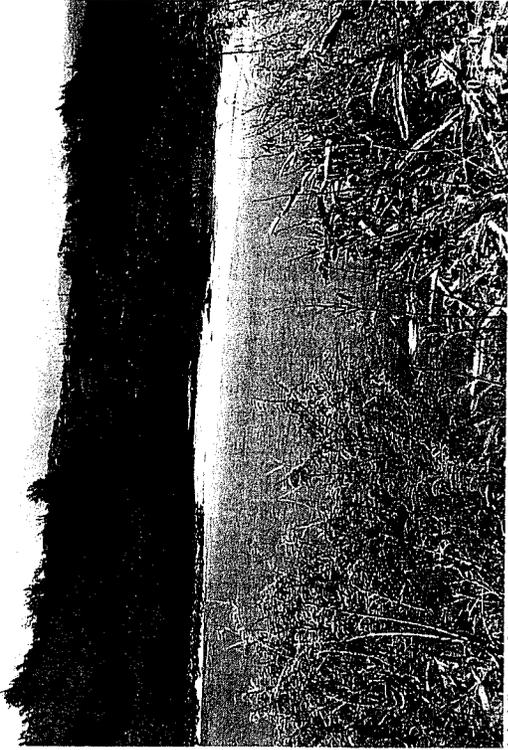
12. View of the NTBG tram road within the western portion of the Project Site looking makai.

10-17-07

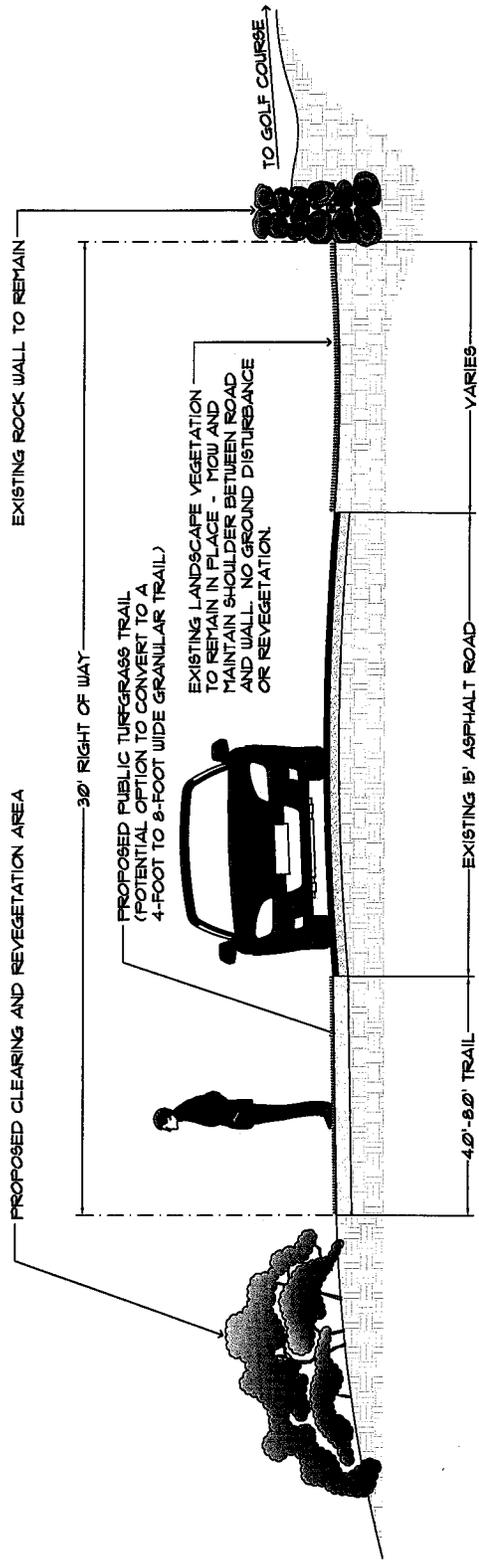


10-17-07

13. View of the northern end of the NTBG tram road within the northwestern-most portion of the Project Site looking mauka.



14. View of Lawai Bay and Lawai Valley from the northwestern portion of the Project Site looking northwest.




MCCEDY & ASSOCIATES
 LANDSCAPE ARCHITECTS

KUKUI'ULA CONSERVATION AREA
 Lawai Road - Section A
 December 10, 2007

SCALE 1/4" = 1'

EXHIBIT

5



SIERRA CLUB Kaua'i Group of the Hawai'i Chapter
 Post Office Box 3412, Lihu'e, Kauai, Hawai'i, 96766

RECEIVED
 OFFICE OF CONSERVATION
 AND COASTAL LANDS

2008 MAR 27 A 8:16

March 23, 2008

DEPT. OF LAND &
 NATURAL RESOURCES
 STATE OF HAWAII

Richard Holtzman	Michael Cain	Frances Yamada	
Kukui'ula Dev. Co.	OCCL - DLNR	Wilson Okamoto Corp.	OEQC
P. O. Box 280	P. O. Box 621	1907 S. Beretania #400	235 S. Beretania #702
Koloa, HI 96756	Honolulu, HI 96809	Honolulu, HI 96826	Honolulu, HI 96813

RE: Concerns on Draft EA for CDUA – Kukui'ula Development Co. (4)2-6-02:12; 2-6-03:3, 20

Dear Sirs:

We have reviewed the Draft Environmental Assessment and have concerns about the proposal to clear and remove non-native vegetation along the makai portion of Lawai Road from the Spouting Horn Park to the NTBG entrance. While the proposal to replace non-native plants with native vegetation may seem desirable superficially, it will actually result in a substantially denuded landscape bringing no benefit to local residents. Eliminating mature trees and other large plants based solely on whether they are indigenous species is not an "improvement".

The plant removal and re-vegetation plan is not a conservation or restoration project. It is primarily to open up views to the ocean for the proposed golf course across the street. Of the 80+ species identified in the Botanical Species survey there were no endemic species found. There were only 5 indigenous "native" species which consist of low vines, groundcover and one shrub (pa'u o hi'iaka, 'ilima papa, 'ihi'ae yellow wood sorrel, popolo and 'uhaloa. The proposed plant list is extremely limited and lacks diversity -- 'akoko, pohinahina, pa'u o hi'iaka, 'ilima papa, naio papa and naupaka. Only two of the five species were found on site. No trees are proposed.

A thriving ecosystem currently exists and selective clearing would be more desirable than the proposed native species planting plan. The existing ironwood trees, pencil trees, five species of large cactus and sisal plants are almost 80 years old and have "naturalized" and survived the harsh coastal environment. They have merit in terms of their ecological, medicinal, historic, cultural, and aesthetic value.

The CDUA lacks sufficient detail about the plant removal and re-vegetation. The Conceptual Site Plan #1 designates a large area for selective removal of existing large non-native species. But, there are no criteria for that selection process. There is no schematic documentation or information identifying which plants will be retained or removed; no quantity or percentage is provided.

This is a sensitive and cherished coastal resource in the Conservation District, highly valued by residents. The consequences of the proposed improvements have been understated and

EXHIBIT 5

minimized. Based on the following, the proposed project will have a significant effect on the environment and the community.

1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.

There is an established, self-supporting ecosystem here. Historically, the kama`aina families, the Moirs and the Allertons, experimented with a wide variety of plants to find species that would survive without irrigation and with low rainfall. Robert Allerton used cactus and succulents extensively for privacy and for shade along the trail that he commissioned Mr. Yamamoto, a stone mason, to build in the 1940's. To remove the naturalized cactus (panini, cereus night blooming, creeping, etc.) ironwood trees and pencil trees is an irrevocable loss and destruction of natural, historic and cultural resources. Hawaiians have voiced concern that plant removal may disturb undiscovered archeological artifacts and displace large rocks clustered around the base of large plants and trees. Rocks are culturally significant and the Hawaiian `Aha Kiole Advisory Committee should be invited to provide comments.

2) Curtails the range of beneficial uses of the environment.

Removing shade trees will curtail the range of beneficial uses of the environment and affect activities of the community. Residents who enjoy this coastline for an outdoors experience, to dive, fish, picnic, and find solitude, will be directly impacted by the removal of trees and large plants. Removal will alter the "sense of place" and diminish user's experience of this recreational resource. It will destroy the unique beauty of this coastline (see attached photographs).

3) Conflicts with the State's long term environmental policies or goals and guidelines as expressed in Chapter 344, HRS.

The current planting plan does not foster and maintain the area as a natural preserve or a unique ecological preserve in keeping with the thriving ecosystem currently in place. HRS 344-4(2)(E).

The two indigenous plant species at the site can be enhanced by a new plan that is moderate and reduces the threat of ecological hazard. The naturalized species with historic value should not be removed - they should be cared for in a manner that is compatible to the enhancement of our environment, HRS 344(3)(B).

Plant removal and re-vegetation with low-growing native species does not preserve and maintain scenic, historic, cultural, park and recreation areas of this shoreline, for public recreational, and educational uses, HRS-344 (4)(A).

Plans for irrigation, fertilizing and herbicides should be disallowed to protect the shorelines of the State from encroachment of artificial improvements, structures, and activities; HRS-344 (4)(B). Despite the use of best management practices, the potential for environmental harm is present from these activities.

4) Substantially affects the social welfare of the community.

According to page 7-4 in the DEA, "The Project is being developed in conjunction with the larger adjacent Kukui`ula development which, given its resort and second home nature, is not anticipated to have a considerable cumulative effect upon the environment." In contrast, we maintain that this resort and 2nd home lifestyle will not "Foster lifestyles compatible with the environment; preserve the variety of lifestyles traditional to Hawaii... which reflect the culture and mores of the community." HRS 344(8)(A).

5) Substantially affects public health.

Air quality and noise impacts will be present during the proposed development. Plans for fertilizing and herbicide use will affect recreational users who have chemical sensitivities.

6) Involves substantial secondary impacts, such as population changes or effects on public facilities.

The significant population increase caused by the Kukuiula Development will be a major factor in the environmental degradation of this site. Coastal access is already available – it is simple and discreet. In this manner, it protects the resource in keeping with state policy to conserve the natural resources and enhance the quality of life HRS 344-4.

7) Involves a substantial degradation of environmental quality.

Establishing native species will take years and may not be successful. Water resources are required for irrigation and the long term need to "maintain" the plantings will detracts from the user's experience of this coastal resource. Excessive vegetation clearing for viewplanes is not in keeping with HRS policies to preserve and perpetuate the inherent value and significance of the conservation district.

8) Cumulatively has a considerable effect upon the environment.

The 1,500 upscale, transient accommodation units and second homes will have cumulative impact on this coastal site. This influx of population combined with the proposed "improvements" will expose this hidden gem and greatly increase the numbers of people accessing this resource. Exposing views will result in greater numbers of people unintentionally trampling sensitive coastal resources and archeological sites. The recreational resources will be diminished, not improved.

9) Substantially affects a rare, threatened or endangered species or its habitat.

We did not see documentation in the CDUA submitted from the State Fish and Wildlife Service, Save Our Shearwaters, or other appropriate agencies. Therefore, an impact analysis on the threatened Newell's Shearwater and other "listed" species is incomplete.

10) Detrimentially affects water quality or ambient noise levels.

Noise impacts are anticipated from the increased traffic and the removal of tall vegetation which provides a sound barrier and reduces noise from the roadway.

11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a beach, an erosion-prone area, geologically hazardous land, or coastal waters.

The area where the selective vegetation removal will occur is located inside the designated flood zone. Plant removal will pose a threat to soil stability. There are better soil stabilizing ground covers than the proposed naupaka; it is an aggressive plant that requires diligent maintenance to prevent blocking pedestrian access. Irrigation water will introduce potential threats along with the use of fertilizer and herbicides despite best management practices.

In Closing.

As suggested to Kukui`ula Landscape Project Manager Robby Snow on February 26, 2008, Sierra Club would like to be involved in the evaluation process of selective plant removal identification and, has offered assistance in securing a culturally appropriate site monitor during plant removal.

On 12/8/04, the Kauai Historic Preservation Review Commission, reserved "the right to provide to provide further comments should there be any changes to the plan and at such time that a more detailed site re-vegetation/landscaping plan is developed." A 10/9/07 memo noted that they reviewed a letter regarding the status of the Cultural Impact Assessment. However, they have not been provided the planting plan for review and comment. Recognizing that the KHPRC has recommended preservation of large cacti at other development sites in the area, their input should be sought.

The impacts and consequences of these "passive improvements" have been understated and minimized in the Draft EA. The plan could instead focus on a long-term goal of phasing in of native vegetation as mature vegetation reaches the end of its life, provided that such native vegetation is able to provide the characteristics (shade, windbreaks, secluded areas to sit or picnic...) that will make the path inviting to, and usable by residents. We request that OCCL visit the site to better understand the proposed impacts.

This is a crucial time when the community feels devastated and betrayed by rapid development and the disregard for old growth vegetation. Providing ocean views for Kukui`ula through excessive vegetative clearing will subject residents to negative social and environmental impacts. The shore south is losing too much too fast. The proposed plant removal and re-vegetation plan is not appropriate.

Respectfully submitted,



Rayne Regush on behalf of the Executive Committee
Sierra Club, Kaua`i Group

Enclosures: photos (8)

6607-13
April 10, 2008



WILSON OKAMOTO
CORPORATION
ENGINEERS | PLANNERS | CONSULTANTS

Ms. Rayne Regush
Sierra Club, Kauai Group of the Hawaii Chapter
P.O. Box 3412
Lihue, Hawaii 96766

Subject: Draft Environmental Assessment ("EA")
Kukui'ula Conservation District Improvements
Tax Map Keys: (4) 2-6-02: 12 and 2-6-03: 3 and 20, and Portion of Lawai Road
Koloa, Island of Kauai, Hawaii

Dear Ms. Regush:

Thank you for your letter of March 23, 2008 regarding the subject Draft EA. We hereby provide the following responses in the order of your comments.

The proposed removal of the existing alien (non-native) vegetation within an approximately 2.8-acre area of the Project Site extending along the entire length of the site adjacent to and makai of the Lawai Road right-of-way, the existing National Tropical Botanical Garden ("NTBG") tram road and the southwestern portion of Spouting Horn Park, and re-vegetation with native species, is anticipated to have a beneficial impact on encouraging the proliferation of native plants presently limited in distribution within and adjacent to the Project Site. The Project improvements will provide a substantially improved public benefit to local residents by primarily replacing existing mature, non-native species with native coastal trees, shrubs and groundcover species that will enhance the composition and diversity of the native plant community within the Project Site. Within an approximately 3.0-acre area of the Project Site adjacent to and makai of this proposed re-vegetation area, the existing non-native vegetation species will largely remain, except for the selective removal of existing large non-native tree species.

As indicated above, removal of the existing non-native vegetation and re-vegetation with native species is anticipated to have a beneficial impact on encouraging the proliferation of native plants presently limited in distribution within and adjacent to the Project Site. Currently, the nature of the existing non-native plant species within the Project Site essentially limits the number of existing native plant species within the site. In an effort to expand the diversity of the native plant palette within the Project Site, three (3) native coastal tree species, the hala, hau and naio, have been added to the re-vegetation areas as shown on the attached modified Conceptual Site Plans. All of these indigenous trees will continue to provide the same ecological functions as the existing non-native trees within the Project Site, while enhancing the composition and diversity of the native vegetation habitat within the coastal area. With the addition of the three species of trees, a total of nine (9) native plant species will be provided within the Project Site. The addition of the three (3) native coastal tree species, and the attached modified Conceptual Site Plans, will be incorporated in **Section 2.2 Project Description** of the Final EA.

We wish to clarify that according to the botanical survey conducted for the Project Site, there are only four (4) native plant species within the site and are all very common indigenous species. Two (2) of these native species, the *'ilima papa* (*Sida fallax* Walp.) and the *pa'u o Hi'iaka* (*Jacquemontia ovalifolia*), are limited to a relatively narrow band along the top of the coastal embankment, makai of Lawai Road. The other two (2) native



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Letter to Ms. Rayne Regush
April 10, 2008
Page 2

species, the 'uhaloa (*Waltheria indica* L.) and the yellow wood sorrel, 'ihi'ae (*Oxalis corniculata* L.), are weedy roadside species. The other native common indigenous species mentioned in your letter, the popolo (*Solanum americanum* Mill.), was found mauka and outside of the Project Site in the area along the eastern rim of Lawai Valley.

The proposed clearing of existing non-native vegetation within the approximately 2.8-acre portion of the Project Site and re-vegetation with native species is intended to foster an ecosystem more appropriate for native plants which is currently hampered by the nature of the existing non-native species within the site. The existing non-native pencil tree (*Euphorbia tirucalli*), of which there are numerous large specimens of this succulent within the western and eastern portions of the Project Site, is a potential hazard owing to the caustic nature of the milky sap exuded from the plant where tissue damage occurs from breaking or cutting of the branches. Due to the caustic nature of the sap which is very irritating to the skin and can cause blindness if allowed to get into the eyes, the logical removal of this plant species will help to foster a plant assemblage that is more conducive to users of the area and help to restore the area towards a more appropriate native coastal ecosystem. Within the areas of the Project Site proposed for selective vegetation removal of existing large non-native tree species, the existing naturalized cactus and sisal species will remain in place and will not be removed. As indicated in the Draft EA, the proposed removal of existing alien vegetation will also include the removal of 29 diseased/declining non-native ironwood trees (*Casuarina equisetifolia*) within the Project Site. These ironwood trees were previously identified as being diseased/declining by an arborist in November 2005. We also note that ironwood trees are included on the State Department of Land and Natural Resources ("DLNR") Hawaii's Most Invasive Horticultural Plants list.

The Applicant proposes to remove a total of approximately 55 ironwood trees from the Project Site. This includes the removal of approximately 40 ironwood trees within the area proposed for vegetation clearing/re-vegetation, and approximately 15 ironwood trees from the area proposed for selective vegetation removal, including approximately three (3) ironwood trees located in the area mauka of the NTBG tram road. These trees proposed for removal are those with an approximately 6-inch caliper. The proposed removal of the 29 diseased/declining ironwood trees is included within the proposed total of approximately 55 ironwood trees to be removed within the Project Site. The ironwood trees are proposed for removal due to their impact on the native plant community resulting from their abundant shading and the accumulation of their needle-like leaves and stems which accumulate in a mat-like nature on the ground, thereby inhibiting the growth of other plants in the immediate area. In addition, approximately 40 to 50 of the existing non-native succulent pencil trees will be removed from the area proposed for vegetation clearing/re-vegetation within the Project Site. The proposed removal of the pencil trees is due to the potential hazard owing to the caustic nature of the milky sap exuded from the plant as indicated above. The proposed removal of both of these non-native plant species will help to foster a plant assemblage that is more conducive to users of the area and to help restore the area towards a more appropriate native coastal ecosystem. This information will be incorporated in the Final EA.



We acknowledge that the Project Site is a sensitive and cherished coastal resource in the Conservation District and therefore, through the proposed Project improvements, intend to help restore the area to a more appropriate coastal native ecosystem. We provide the following responses to your numbered comments.

- 1) As previously indicated, the proposed clearing of existing non-native vegetation within the approximately 2.8-acre portion of the Project Site and re-vegetation with native species is intended to foster a plant assemblage that will help to restore the areas towards a more appropriate native coastal ecosystem. The ironwood trees are proposed for removal due to their impact on the native plant community resulting from their abundant shading and the accumulation of their needle-like leaves and stems which accumulate in a mat-like nature on the ground, thereby inhibiting the growth of other plants in the immediate area. The existing non-native succulent pencil tree is a potential hazard owing to the caustic nature of its milky sap which is very irritating to the skin and can cause blindness if allowed to get into the eyes. Due to its caustic nature, the logical removal of the pencil trees will help to foster an ecosystem more conducive to users of the area. Within the areas of the Project Site proposed for selective vegetation removal of existing large non-native tree species, the existing naturalized cactus and sisal species will remain in place and will not be removed.

Removal of the existing non-native vegetation and re-vegetation with native species appropriate to the area is anticipated to have a beneficial impact and will enhance the gathering practices which currently occur within the Project Site by encouraging and enhancing the proliferation of native plants presently limited in distribution within and adjacent to the Project Site. This information will be included in the discussion under Significance Criteria 1) in **Chapter 7 Notice of Determination** in the Final EA.

Minimal ground disturbance will occur during the proposed clearing and removal of the existing non-native vegetation within the Project Site. The removal of the existing non-native vegetation will be undertaken with the use of mechanical (i.e., hydroAx and chainsaws) and hand clearing (i.e., handsaws and manual trimming tools) methods. The hydroAx will be used to remove existing vegetation within accessible areas makai of the Lawai Road right-of-way. For the removal of the larger vegetation species, hand tools or chainsaws will be used to cut the vegetation to the stump and methods such as wipe-on or brush-on herbicide will be used on the vegetation stumps. Therefore, no large rocks will be displaced during the proposed vegetation clearing and removal activities. The minimal ground disturbance to be undertaken during the proposed vegetation clearing and removal activities is also not anticipated to result in disturbance of undiscovered archaeological artifacts. As indicated in **Section 3.10 Historic and Archaeological Resources – Impacts and Mitigation Measures** in the Draft EA, should any previously unidentified burial, archaeological or historic sites be found during the course of implementation activities within the Project Site, the Applicant will stop work in the immediate vicinity and the State DLNR Historic Preservation Division (“SHPD”) will be notified immediately. The significance of these finds will then be determined and appropriate mitigation measures will be approved by the SHPD and the Kauai/Niihau Islands Burial Council, as appropriate. Subsequent



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Letter to Ms. Rayne Regush
April 10, 2008
Page 4

work will proceed after SHPD authorization has been received and mitigative measures have been implemented.

- 2) As previously indicated, three (3) native coastal tree species, the hala, hau and naio, have been added to the plant palette of the re-vegetated areas within the Project Site as shown on the attached modified Conceptual Site Plans. The addition of these native coastal trees will provide shade areas within the Project Site. The proposed native plant palette and planting arrangements within the Project Site will contribute toward restoring a coastal sense of place and will enhance the user's experience by providing native vegetation more appropriate and conducive to the existing environment.
- 3) We hereby provide the following responses in support of how the proposed Project is consistent with the State's long-term environmental policies, goals and guidelines as expressed in Chapter 344, Hawaii Revised Statutes ("HRS") and as mentioned in your letter:

Section 344-4(2)(E), HRS:

- (2) *Land, water, mineral, visual, air, and other natural resources.*
- (E) *Establish and maintain natural area preserves, wildlife preserves, forest reserves, marine preserves, and unique ecological preserves;*

The proposed clearing of existing non-native vegetation within the approximately 2.8-acre portion of the Project Site and re-vegetation with native species is intended to foster an ecosystem more appropriate for native plants currently hampered by the nature of the existing non-native plant species within the site. The proposed clearing/removal and re-vegetation improvements is anticipated to have a beneficial impact by encouraging the proliferation of native plants presently limited in distribution within and adjacent to the Project Site.

Section 344-4(3)(B), HRS:

- (3) *Flora and fauna.*
- (B) *Foster the planting of native as well as other trees, shrubs, and flowering plants compatible to the enhancement of our environment.*

The proposed vegetation clearing/removal and re-vegetation within the Project Site will substantially improve the native coastal ecosystem of the area by replacing existing alien species with native coastal trees, shrubs and groundcover species that will enhance the diversity of the plant community within the site. The proposed native plant palette and planting arrangements within the Project Site will contribute toward restoring and enhancing the coastal ecosystem. Within the areas of the Project Site proposed for selective vegetation removal of existing large non-native tree species, the existing naturalized cactus and sisal species will remain in place and will not be removed.



Section 344-4(4)(A), HRS:

- (4) Parks, recreation, and open space.*
 - (A) Establish, preserve and maintain scenic, historic, cultural, park and recreation areas, including the shorelines, for public recreational, educational, and scientific uses;*
 - (B) Protect the shorelines of the State from encroachment of artificial improvements, structures, and activities;*

Removal of the existing non-native vegetation and re-vegetation with native plant species will contribute toward restoring and enhancing the native coastal ecosystem. The proposed vegetation clearing/removal and re-vegetation improvements will also restore and visually enhance the scenic and coastal views of the area.

The Project improvements will include the preservation of an existing coastal trail complex which consists of a historic trail that traverses along the inland edge of the coastal embankment within the central and eastern portions of the Project Site, paralleling the coastline, and the preservation of two (2) existing rock shelter cave sites located along the coastal cliff within the eastern portion of the site. The two (2) rock shelter sites were listed on the State Register of Historic Places on September 30, 1988 and remain on the State Register. The preservation of these three (3) sites will be in accordance with a Preservation Plan prepared in December 2004 and approved by the SHPD in March 2005 and the Kauai Historic Preservation Review Commission ("KHPRC") in December 2004. Long-term preservation of these three (3) sites will be passive preservation in the form of avoidance and conservation. Further discussion of the coastal trail complex and the two (2) rock shelter cave sites and the preservation of these sites is included in **Section 3.10 Historic and Archaeological Resources** of the Draft EA.

The proposed Project will enhance the recreational uses and gathering practices which currently occur within the Project Site by providing public pedestrian access to the shoreline areas west of Spouting Horn Park, and by encouraging and enhancing the proliferation of native plants presently limited in distribution within and adjacent to the site.

Irrigation for the establishment of the re-vegetated areas within the Project Site will include the installation of a temporary aboveground drip irrigation system consisting of a 1-inch diameter poly-urethane irrigation line that will ultimately connect to a 3-inch main irrigation line along Lawai Road and the NTBG tram road. A network of temporary aboveground ¼-inch diameter poly-urethane drip tubing will connect to the 1-inch diameter line to distribute irrigation water to all of the individual new plants. Following establishment of the new vegetation, the temporary irrigation system will be removed.

Fertilization of the new vegetation and turf grass trail within the Project Site will be applied by directly injecting all natural bio-fertilizer into the irrigation water and through the irrigation system. This system of fertilization will reduce the amount of fertilizer that would otherwise be required by up to 70 to 90 percent, thereby largely eliminating fertilizer runoff. Appropriate herbicides will be applied to the cut



vegetation stumps at the recommended concentration level with a wipe-on or brush-on technique which will minimize the drift overspray that would otherwise occur with a spray-on technique. The use of herbicides within the Project Site is anticipated to be minimal since it is proposed for use only until the new vegetation is established and as needed during the long-term maintenance operations. The herbicides to be used will be Environmental Protection Agency ("EPA") certified products approved for use in environmentally sensitive areas. The fertilizers and herbicides to be used within the Project Site will be determined in consideration of the sensitive environment and recreational users of the area. The information from this paragraph will be incorporated in **Section 2.2 Project Description**, **Section 3.3 Water Resources – Impacts and Mitigation Measures**, Significance Criteria 5) in **Chapter 7 Notice of Determination**, Significance Criteria 10) in **Chapter 7 Notice of Determination**, and Significance Criteria 11) in **Chapter 7 Notice of Determination** of the Final EA.

- 4) As indicated in Significance Criteria 4) in **Chapter 7 Anticipated Determination** of the Draft EA, the proposed Project improvements will provide public pedestrian access to the shoreline areas west of Spouting Horn Park and restore and visually enhance the coastal views of the area.

In regard to your comment which refers to Significance Criteria 8) on page 7-4 of the Draft EA, please refer to our response to your numbered comment 8) below.

- 5) As indicated in **Section 3.8 Air Quality – Impacts and Mitigation Measures** of the Draft EA, potential air quality impacts resulting from construction of the Project improvements will be mitigated by complying with the State Department of Health ("DOH") Administrative Rules, Title 11, Chapter 60, Air Pollution Control. The construction contractor(s) will be responsible for complying with the State DOH regulations that prohibit visible dust emissions at the property boundaries. Compliance with State regulations will require adequate measures to control airborne dust by methods such as water spraying and sprinkling of loose or exposed soil or ground surface areas and dust-generating equipment during construction. Regular wetting of surface areas will be implemented during the vegetation clearing activities and these areas will be re-vegetated soon thereafter to control dust. The proposed temporary aboveground irrigation system will also serve to wet surface areas within the re-vegetated areas which will help to control dust. The hydro-seeding of the pedestrian trail to establish the turf grass will also help to control dust.

As indicated in **Section 3.9 Noise – Impacts and Mitigation Measures** of the Draft EA, construction noise will be unavoidable during the duration of the construction period of the proposed Project. Operation of construction equipment such as trucks, trencher, hydroAx, jackhammers, chainsaws, and pavers will raise ambient noise levels in the Project vicinity. Unavoidable construction noise impacts will be mitigated by complying with the provisions of the State DOH Administrative Rules, Title 11, Chapter 46, "Community Noise Control" regulations which require a noise permit if the noise levels from construction activities are expected to exceed the allowable noise levels stated in the Rules. The hours of permitted construction noise operations specified in the Rules will be adhered to and enforced. It shall be



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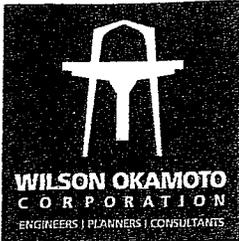
the contractor's responsibility to minimize noise by properly maintaining noise mufflers and other noise-attenuating equipment, and to maintain noise levels within regulatory limits. Construction activities that generate noise which may disturb potential nesting colonies of the Wedge-tailed Shearwaters (*Puffinus pacificus*) within the Project Site will not be undertaken during the Wedge-tailed Shearwaters breeding season.

Based on the above, the following information will be added to the discussion under Significance Criteria 5) in **Chapter 7 Notice of Determination** in the Final EA:

"Construction activities associated with the Project are anticipated to result in short-term impacts to noise and air quality in the immediate vicinity of which measures in accordance with the State DOH Administrative Rules, Title 11, Chapter 46, "Community Noise Control", and Title 11, Chapter 60, "Air Pollution Control" will be implemented to mitigate these impacts, respectively."

Fertilization of the new vegetation and turf grass trail within the Project Site will be applied by directly injecting all natural bio-fertilizer into the irrigation water and through the irrigation system. This system of fertilization will reduce the amount of fertilizer that would otherwise be required by up to 70 to 90 percent. Appropriate herbicides will be applied to the cut vegetation stumps at the recommended concentration level with a wipe-on or brush-on technique during the initial vegetation clearing activities. The use of herbicides within the Project Site is anticipated to be minimal since it is proposed for use only until the new vegetation is established and as needed during the long-term maintenance operations. The wipe-on or brush-on method of herbicide application will minimize the drift overspray that would otherwise occur with a spray-on technique. The herbicides to be used will be EPA-certified products approved for use in environmentally sensitive areas. The fertilizers and herbicides to be used within the Project Site will be determined in consideration of the sensitive environment and recreational users of the area. The information from this paragraph will be incorporated in **Section 2.2 Project Description, Section 3.3 Water Resources – Impacts and Mitigation Measures**, Significance Criteria 5) in **Chapter 7 Notice of Determination**, Significance Criteria 10) in **Chapter 7 Notice of Determination**, and Significance Criteria 11) in **Chapter 7 Notice of Determination** of the Final EA.

- 6) As indicated in Significance Criteria 6) in **Chapter 7 Anticipated Determination** of the Draft EA, the proposed Project is not anticipated to induce increased population growth or result in adverse effects on public facilities due to the passive nature of the improvements. The need for the proposed improvements is intended to fulfill Condition No. 15.f) of Zoning Ordinance No. PM-2004-370 for the planned adjacent Kukui'ula development which requires that the Applicant provide public pedestrian access to the shoreline areas west of Spouting Horn Park owned by the Applicant. This information will be incorporated in the discussion under Significance Criteria 6) in **Chapter 7 Notice of Determination** in the Final EA.



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- 7) The establishment of the native plant species within the Project Site is anticipated to take about one (1) year as the native species would typically get acclimated in that natural coastal environment. The source of non-potable irrigation water for the re-vegetated areas and the turf grass pedestrian trail will be the surface water from the existing private irrigation system owned by the McBryde Sugar Company, Limited located mauka of the Project Site. Irrigation for the re-vegetated areas will be on a temporary basis until the new vegetation is established. All proposed Project improvements will be maintained by the Applicant. As part of the long-term maintenance of the Project improvements, the maintenance of the turf grass trail and re-vegetated areas will be undertaken on a weekly basis, while maintenance of the selective vegetation removal areas will occur on a quarterly basis. Maintenance activities within the Project Site will be undertaken incrementally in consideration of the users of the area, as well as in consideration of the breeding/nesting season of the Wedge-tailed Shearwaters.

Removal of the existing non-native vegetation and re-vegetation with native species is anticipated to have a beneficial impact on encouraging the proliferation of native plants presently limited in distribution within and adjacent to the Project Site. With the proposed Project improvements, the intent is to help restore the area to a more appropriate coastal native ecosystem. The proposed vegetation clearing/removal and re-vegetation improvements will also restore and visually enhance the coastal views of the area.

- 8) As indicated in Significance Criteria 8) in **Chapter 7 Anticipated Determination** of the Draft EA, the Project itself is not anticipated to have a significant adverse cumulative effect on the environment, nor will it involve a commitment for larger actions. The proposed Project improvements are intended to fulfill Condition No. 15. f) of Zoning Ordinance No. PM-2004-370 for the adjacent Kukui'ula development which requires that the Applicant provide public pedestrian access to the shoreline areas west of Spouting Horn Park owned by the Applicant. It is noted that the majority of the Project Site located makai of the approximately 2.8-acre area proposed for vegetation clearing/removal and re-vegetation will remain in its current natural state, except for the selective removal of existing large non-native tree species.
- 9) The U.S. Fish and Wildlife Service ("USFWS") was consulted during the pre-assessment consultation phase of the EA process, although comments were not received. The USFWS provided comments to the Draft EA by letter dated March 20, 2008, a copy of which is included in the Final EA, along with our response letter.

The Applicant has been working closely with Reginald David, the primary representative of Save Our Shearwaters, in regard to the proposed Project improvements and its potential affect on the Wedge-tailed Shearwaters and their potential nesting colonies. We note that Reginald David also conducted the faunal survey of the Project Site, the report of which is included in Appendix C of the Draft and Final EAs. During development of the proposed Project improvements, the Applicant will closely coordinate with the USFWS and the State DLNR Division of



Forestry and Wildlife in ensuring that the Project improvements will not adversely impact any seabird species.

- 10) As indicated in **Section 3.13 Traffic – Impacts and Mitigation Measures** of the Draft EA, no significant long-term impacts on vehicular traffic associated with the operation of the proposed Project improvements are anticipated due to the passive nature of the improvements. The proposed removal of tall vegetation within the Project Site is not anticipated to increase traffic-related noise from Lawai Road since vegetation is not typically considered to be an effective noise abating barrier.
- 11) The proposed selective removal of existing large non-native tree species within the designated Flood Zone "X", which encompasses a small portion of the selective vegetative removal area, will not pose a threat to soil stability. For the removal of these larger vegetation species, hand tools or chainsaws will be used to cut the vegetation to the stump and methods such as wipe-on or brush-on herbicide will be used on the vegetation stumps. This information will be incorporated in the discussion in **Section 3.4 Flood Hazard – Impacts and Mitigation Measures** and under Significance Criteria 11) of **Section 7 Notice of Determination** in the Final EA.

The use of naupaka, which is one of the most common and prolific coastal plants in the Islands, is anticipated to help soil stabilization as its leaves effectively serve as buffer from the rain. As part of the long-term maintenance of the Project improvements, the maintenance of the re-vegetated areas, including the naupaka, will be undertaken on a weekly basis.

As previously indicated, irrigation for the establishment of the re-vegetated areas within the Project Site will include the installation of a temporary aboveground drip irrigation system consisting of a 1-inch diameter poly-urethane irrigation line that will ultimately connect to a 3-inch main irrigation line along Lawai Road and the NTBG tram road. A network of temporary aboveground ¼-inch diameter poly-urethane drip tubing will connect to the 1-inch diameter line to distribute irrigation water to all of the individual new plants. Following establishment of the new vegetation, the temporary irrigation system will be removed.

Fertilization of the new vegetation and turf grass trail within the Project Site will be applied by directly injecting all natural bio-fertilizer into the irrigation water and through the irrigation system. This system of fertilization will reduce the amount of fertilizer that would otherwise be required by up to 70 to 90 percent, thereby largely eliminating fertilizer runoff. Appropriate herbicides will be applied to the cut vegetation stumps at the recommended concentration level with a wipe-on or brush-on technique which will minimize the drift overspray that would otherwise occur with a spray-on technique. The use of herbicides within the Project Site is anticipated to be minimal since it is proposed for use only until the new vegetation is established and as needed during the long-term maintenance operations. The herbicides to be used will be EPA-certified products approved for use in environmentally sensitive areas. The fertilizers and herbicides to be used within the Project Site will be determined in consideration of the sensitive environment and recreational users of the area. The information from this paragraph will be



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incorporated in **Section 2.2 Project Description, Section 3.3 Water Resources – Impacts and Mitigation Measures**, Significance Criteria 5) in **Chapter 7 Notice of Determination**, Significance Criteria 10) in **Chapter 7 Notice of Determination**, and Significance Criteria 11) in **Chapter 7 Notice of Determination** of the Final EA.

We appreciate the Sierra Club's offer to provide assistance in the evaluation process of selective plant removal identification and in securing a culturally appropriate site monitor during plant removal. The Applicant has assembled a team of botanical and landscape experts in developing the proposed Project plan and evaluating the existing non-native plants deemed appropriate for removal and determining the species of native plants for the re-vegetated areas which are appropriate for the coastal environment and suitable for long-term maintenance.

During the development of the proposed Project improvements, close coordination and consultation was undertaken with the KHPRC. This included a presentation to the KHPRC on November 4, 2004 and a field trip to the Project Site on December 2, 2004. The KHPRC was also consulted on the proposed Project through the cultural impact assessment process

The proposed clearing/removal of the existing non-native vegetation and re-vegetation with native vegetation is deemed to be more feasible than a long-term phasing in of native vegetation. By phasing in the native vegetation over the longer term, the nature of the existing mature non-native trees and vegetation within the remainder of the Project Site would provide conditions that are not conducive for the successful establishment of the newly planted native vegetation. This is evident in the current conditions within the Project Site whereby the existing non-native vegetation hamper the native vegetation from flourishing in the area. As previously indicated, three (3) native coastal tree species, the hala, hau and naio, have been added to the re-vegetation areas, and which will provide shade areas within the Project Site. We note that the DLNR Office of Conservation and Coastal Lands conducted a site visit of the Project Site on March 7, 2007 with the Applicant, at which time the proposed Project improvements were discussed.

In closing, we reiterate that the need for the proposed Project improvements is intended to fulfill Condition No. 15.f) of Zoning Ordinance No. PM-2004-370 for the planned adjacent Kukui'ula development which requires that the Applicant provide public pedestrian access to the shoreline areas west of Spouting Horn Park owned by the Applicant. Removal of the existing non-native vegetation and re-vegetation with native species is anticipated to have a beneficial impact on encouraging the proliferation of native plants presently limited in distribution within and adjacent to the Project Site. With the proposed Project improvements, the intent is to help restore the area to a more appropriate coastal native ecosystem.



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We appreciate your time and effort in reviewing the subject EA.

Sincerely,

Frances Yamada
Senior Planner

Enclosures

cc: Mr. Michael Cain, State Department of Land and Natural Resources, Office of
Conservation and Coastal Lands
Ms. Katherine Kealoha, State Office of Environmental Quality Control
Mr. Roby Snow, Kukui'ula Development Company (Hawaii), LLC

