

Testimony to the Planning Commission on the
Final Environmental Impact Statement by Honua‘ula Partners LLC

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Let me say at the outset that I am not in general opposed to the Honua‘ula project, and would be happy to see construction begin as soon as possible so as to generate jobs for Maui workers. But the Honua‘ula project has developed a momentum in its current form which puts it on a deadly collision course with one of the most endangered ecosystems in the United States, the lowland Hawaiian dry forest. I believe that the project can be re-designed to avoid this collision with nature.

The Planning Commission is one of the institutions created to help prevent such collisions. Because the Final Environmental Impact Statement (FEIS) is inaccurate in describing the ecological consequences of the proposed plan or its alternatives, the Commission has the opportunity—and the duty—to prevent this destruction by not accepting the FEIS in its current form.

The chief deficiencies and inaccuracies of the FEIS regarding the dry forest ecosystem are as follows:

1. Nowhere does it acknowledge that the habitat it proposes to destroy is part of an endangered ecosystem.
2. The FEIS omits the complete text of the July 2, 2010 letter from the US Fish and Wildlife Service to Mr. Jencks, and the excerpts from the letter specifically omit the critical text:

“We believe the entire 130-acre (56-hectare) area at the southern end of the project merits preservation. . . . To minimize these adverse impacts to ecosystem integrity, we recommend that the conservation easement or Native Plant Protection Area include the roughly 130 acres (56 hectares)) within the ‘a‘a lava flow which supports a somewhat degraded, yet functioning native dryland forest/shrubland ecosystem.”

3. The FEIS omits entirely the following ecological factors in describing the environmental impact of reducing the native habitat from 170-195 acres to 40 acres:
 - (a) Loss of critical habitat for the recovery of 21 endangered species specifically listed for Honua‘ula as part of *Maui Lowland Dry–Unit 3* in the Proposed Rules of the US Department of the Interior, Federal Register, Vol. 77, No. 112, June 11, 2012.¹
 - (b) Impact on probabilities of stochastic extirpations or extinctions of endangered species over the remaining inventory of native lowland dry forest on Maui.
 - (c) Edge effects on the viability of the ecosystem in a reduced habitat surrounded by development.

¹*Alectryon macrococcus, Bidens micrantha ssp. kalealaha, Bonamia menziesii, Canavalia pubescens, Cenchrus agrimonioides, Colubrina oppositifolia, Ctenitis squamigera, Flueggea neowawraea, Hibiscus brackenridgei, Melanthera kamolensis, Melicope ascendens, Melicope mucronulata, Neraudia sericea, Neraudia sericea, Nototrichium humile, Nototrichium humile, Santalum haleakalae var. lanaiense, Sesbania tomentosa, Solanum incompletum, Spermolepis hawaiiensis, Zanthoxylum hawaiiense. Federal Register Vol. 77, No. 112, June 11, 2012, Proposed Rules p. 34710.*

- (d) Loss of allelic diversity for future adaptation due to killing the majority of the remnant populations of the 26 native plant species identified on the ‘a‘a flow.
 - (e) Adequacy of the reserve to maintain minimal viable population sizes of each native species.
 - (f) Fragmentation of the reserve from the currently connected adjacent habitat on Ulupalakua Ranch and Makena Resort.
 - (g) Species-area effects on a reduced and fragmented habitat.
 - (h) Potential effects on unknown invertebrate and soil microbial native biodiversity surviving within the habitat.
4. The alternative of a 130 acre preserve is considered in FEIS Vol. 1, Section 6.7, *130-Acre Native Plant Preservation Area*, but it describes only the economic and design problems, and completely omits any consideration of the environmental impacts of the 130 acre preserve alternative.
 5. The FEIS never considers an alternative that protects the 170 acres acknowledged by the FEIS to be part of the remnant native ecosystem.
 6. The FEIS asserts erroneously that “Honua‘ula is not expected to significantly impact any endangered species” (FEIS Vol. 1 p. 8) despite the importance of the habitat for the recovery of endangered species that do not currently occupy the site, as succinctly described in *Federal Register* 77(112) 34473–34474:

“Each critical habitat unit identified in this proposed rule contains the physical or biological features essential to the conservation of those individual species that occupy that particular unit, or areas essential for the conservation of those species identified that do not presently occupy that particular unit. Where the unit is not occupied by a particular species, we believe it is still essential for the conservation of that species because the designation allows for the expansion of its range and reintroduction of individuals into areas where it occurred historically, and provides area for recovery in the case of stochastic events that otherwise hold the potential to eliminate the species from the one or more locations it is presently found. Under current conditions, many of these species are so rare in the wild that they are at high risk of extirpation or even extinction from various stochastic events, such as hurricanes or landslides. Therefore, building up resilience and redundancy in these species through the establishment of multiple, robust populations, is a key component of recovery.”

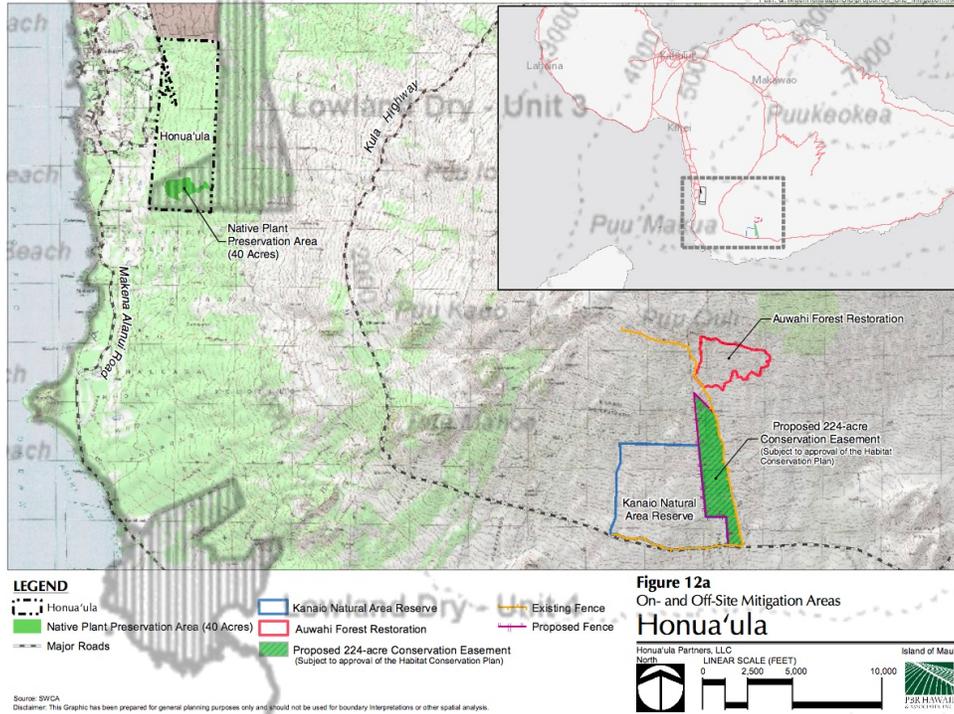
The deficiencies I have enumerated are essential and basic conservation biology. The FEIS is notable that, despite its length and devotion of its discussion to myriad details, beyond the appropriate steps of building fences for ungulate exclusion, it is essentially devoid of any other principles of conservation biology.

The developer had the opportunity to address many of the above deficiencies since I pointed them out in my comments on the Draft Environmental Impact Statement, which are printed in FEIS Volume 2, pp. 452–456.

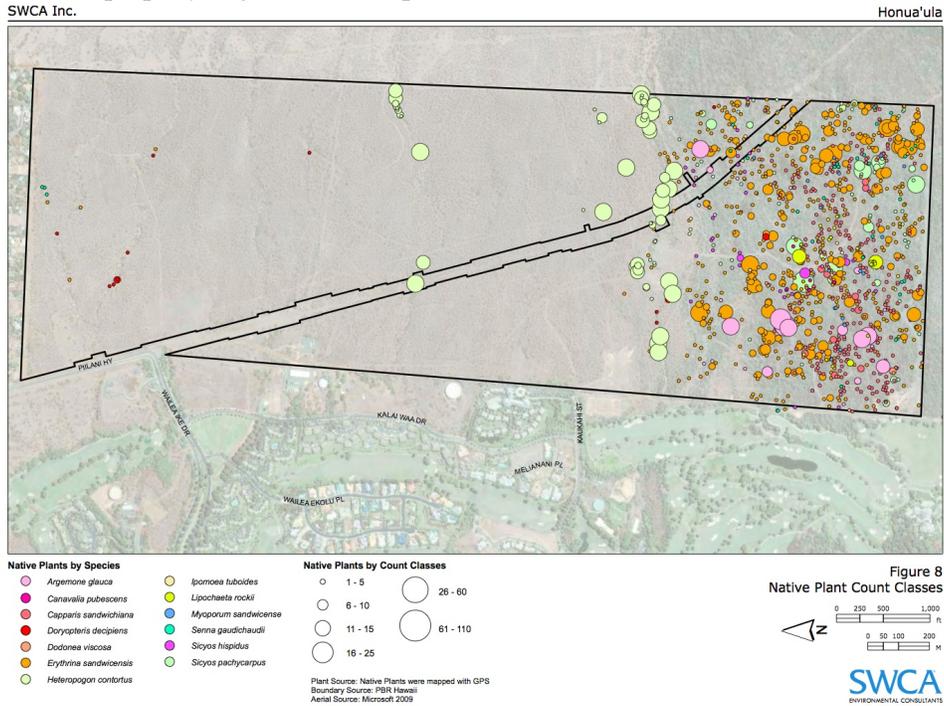
In regards to the claim in Section 6.6 that even a 130 acre preserve is “infeasible” economically and within compliance with the other conditions of zoning, it should be noted that the developer had 5 years before the County Council passed the rezoning to redesign the project to take into account the information I reported to Mr. Jencks that the ‘a‘a flow contained critical habitat of an endangered ecosystem. The developer also had the opportunity when Condition 27 was proposed by the County Council to point out any conflicts between the 130-acre reserve requirement in Condition 27 and other conditions of zoning; the developer, however, did not raise any such issues, and Condition 27 was unanimously approved by the County Council.

For all of the above reasons, the Final Environmental Impact Statement submitted by Honua‘ula Partners, LLC, does not meet the legal requirements for acceptance and should be rejected.

An overlay of the Federal Rules proposed Critical Habitat *Lowland Dry-Unit 3* on the Honua‘ula projects is shown below:



The botanical survey by SWCA showing the extant of native plants over the 195 acres of ‘a‘a flow on the southern portion of the property (right side of map) is shown:



Background to my involvement with Honua‘ula LLC

I am a population biologist and my research has been published in *Ecological Monographs*, *Ecology*, *The American Naturalist*, *Proceedings of the National Academy of Sciences*, and other journals, and I have served on

National Science Foundation review panel and site visits. I moved to Maui with my father in 1994 to care for him in the last years of his life. As one of the few population biologists on Maui, I felt a professional duty to contribute to the conservation of Maui's endangered ecosystems, and served as Chair of the Native Hawaiian Plant Society, the Maui Axis Deer Group, the Maui County Council Subcommittee on Outdoor Lighting Standards, and participated with inter-agency committees to save the Po'ouli and to stop the *Erythrina* gall wasp. I have also volunteered with the Auwahi Restoration Group.

My involvement with the Honua'ula project began in 2001 when Richard Nakagawa of the DLNR asked me to help preserve the candidate endangered plant species 'awikiwiki, *Canavalia pubescens*, and a unique phenotype of Rock's nehe, *Lipochaeta rockii* that grew in land recently approved for development, Keauhou/Palauea. This 'a'a lava flow supported numerous other lowland Hawaiian dry forest trees and shrubs, and I conjectured that these species would be found mauka on the same flow, which was Wailea 670. I asked Mr. Jencks in 2002 if I could visit the site to see the extent of native vegetation it harbored, discovered that it harbored a large remnant of Hawaiian dry forest. I met with Mr. Jencks in 2002 reported to him my findings, and with my recommendation that the project be redesigned so that whole area be surveyed and preserved for conservation.

I have subsequently testified to the Maui County Council that the project should be redesigned to preserve the entire endangered lowland dry forest habitat in the southern portion. I complete a report on the conservation value of the habitat in 2007, *Remnant Wiliwili Forest Habitat at Wailea 670, Maui*. I worked with Council Member Michele Anderson to draft language based on my preliminary botanical surveys that was passed in Condition 27 for the rezoning of the project.