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KAPOLEI PROPERTY DEVELOPMENT, LLC

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAI'I

In the Matter of the Petition of KAPOLEI PROPERTY DEVELOPMENT, LLC To Amend the Agricultural Land Use District Boundaries into the Urban Land Use District for Approximately 344.519 Acres in Ewa District, Island of Oahu, Tax Map Key Nos. (1) 9-1-014:033 (por.), 034, 035 and (1) 9-1-015:020 (por.)	DOCKET NO. A06-763

KAPOLEI PROPERTY DEVELOPMENT, LLC'S
WRITTEN DIRECT TESTIMONY OF ERIC B. GUINTHER

EXHIBIT "22"

WRITTEN DIRECT TESTIMONY OF
ERIC B. GUINTHER

BACKGROUND QUESTIONS

1. Please state your name and business address for the record.

Eric B. Guinther
AECOS, Inc.
45-939 Kamehameha Highway, Suite 104
Kaneohe, HI 96744-3221

2. What is your current occupation?

Biologist/Ecologist.

3. How long have you been an ecologist and aquatic biologist by profession?

34 years.

4. Could you briefly describe your educational background?

University of the Pacific, BA (1965)
University of Hawaii, graduate studies 1967-1973

5. Do you presently belong to any professional organizations or associations?

Yes.

6. Could you please list them for us?

National Association of Environmental Professionals (NAEP)
Hawaii Association of Environmental Professionals (HAEP)

7. Did you provide a copy of your curriculum vitae for purposes of this hearing?

Yes.

8. Is Petitioner's Exhibit "23"a copy of your curriculum vitae?

Yes.

9. Do you specialize in a particular area in your field of work?

Presently, I specialize in botanical field studies and surveys.

10. Could you briefly describe your training and work experience as an ecologist and aquatic biologist?

After graduating from the University of the Pacific in California with a broad general education in biology, I specialized in marine ecology and moved to Hawaii where I was involved in graduate studies and coursework covering both aquatic and terrestrial environments. In 1973, I joined AECOS, Inc. as a marine biologist involved in consulting and conducting field surveys in Hawaii and on various other islands throughout the Pacific. Over time I moved more into surveys of streams and wetlands, took a course in wetlands delineation, and gradually discovered I had an aptitude for plant identification, which I combined with my long-time interest and training in ecology and a personal interest as a plant collector to become an expert in identification of plants observed and collected in field surveys.

11. Where are you currently employed?

Self-employed as AECOS Consultants.

12. How long have you been employed at AECOS Consultants ("AECOS")?

Since about 1999.

13. What is your title or position?

Owner, AECOS Consultants.

14. Could you briefly describe what AECOS does?

AECOS Consultants provides services of experts in various biological disciplines to clients.

15. Could you briefly describe your duties and responsibilities?

Presently conduct botanical field surveys, sometimes wetland surveys and consult on regulatory matters related to environmental permits.

16. How long have you been involved in performing botanical surveys?

Approximately 10-12 years as a primary interest, although surveys of marine plants and algae go back perhaps 30 years, and working with other botanists in doing field surveys over 25 years.

17. Could you briefly describe the type of work you currently perform as an ecologist and aquatic biologist?

Most clients require I undertake a field survey to ascertain biological resources in a given area or property. Resources are identified and a report of results is prepared. The report typically includes an assessment of proposed project impacts on the discovered biological resources.

18. Could you briefly describe to us the types of projects in which you have performed botanical surveys?

Most projects involve a survey of undeveloped or partly developed land. These have ranged from hundreds of acres of pasture in Hamakua, Kealia, Waikaloa, and Makakilo, to surveys of native forest in Puna and numerous smaller properties all along the Kona Coast of the islands of Hawaii, Maui, Oahu, Kauai, and Tinian in the Commonwealth of the Northern Marianas, numerous surveys of lands in and adjacent to Kapolei on Oahu. Clients have included private land owners, as well as the Marine Corps, Army Corps of Engineers, U.S. Navy, Hawaii Army National Guard, State Department of Land and Natural Resources, and most of the larger engineering and or planning firms in Hawaii. Most often, my report is included in an environmental assessment or environmental impact statement as a technical support document. I am presently project manager for a project involving the care and restoration of the endangered *'Ewa 'akoko* at Kalaeloa.

19. Do you possess specialized knowledge within the field of botany? In what areas?

Yes. Plant identification. I also grow native plants at my nursery for planting out.

20. Have you previously been qualified and/or testified as an expert witness in the field of botany?

Yes.

21. If yes, on approximately how many occasions have you been qualified to testify as an expert in the field of botany?

Two or three times that I can recall in a botanical field; also as a marine ecologist on several occasions and as a water quality expert on several occasions. As an expert witness in the marine environment and once as an expert in the collection and identification of algae for the State of Hawaii.

KAPOLEI HARBORSIDE CENTER PROJECT

22. Are you familiar with the Kapolei area located in the 'Ewa district on the island of Oahu?

Yes, I am.

23. Are you familiar with the botanical species of the Kapolei area located in the 'Ewa district on the island of Oahu?

Yes, I am.

24. How did you become involved in the Kapolei Harborside Center project ("Project")?

I was hired by Reginald David of Rana Productions, Ltd. to conduct a botanical survey of the property to be developed.

BOTANICAL RESOURCES

25. Did you prepare a biological survey about the Project?

Yes.

26. What did the survey consist of?

All plants observed were identified and an estimate of abundance made for each species on the property. A report detailing biological resources was prepared by myself and Reginald David, jointly.

27. Was the biological survey prepared by you or under your supervision?

I was responsible for the botanical methods and results, and relating my observations to an assessment of the Project impacts on botanical resources of the site.

28. Is Petitioner's Exhibit "24" a true and correct copy of your survey?

Yes.

29. Could you please summarize the scope of your survey?

A map was prepared for the report (Figure 2 of our report) that demonstrates roughly the route taken in the site survey. In addition, an earlier survey by me of

a proposed Hawaiian Electric Company transmission line across the property was included as additional information on plants found on the property.

30. Could you describe the methodology used to prepare your survey?

A pedestrian or wandering transect of the area was conducted over most of one (1) day, and plants are identified as they are encountered on this wandering survey of the property that attempts to reach every environment type present and adequately cover each of these environments. A record of the wandering transect is kept by saving waypoints in a GPS (global positioning system) instrument, later downloaded to a mapping program, and the route plotted as shown in Figure 2 of our report. Specimens may be collected and/or photographs taken of any plants not immediately recognized in the fields.

31. Is the methodology you employed consistent with standards accepted by the scientific community in your field?

Yes. Straight-line transect methods, typically used to quantify vegetation, are not appropriate for surveys to discover resources present, as the straight-line transects miss rare species.

32. Could you define the terms "status" and "abundance" as used in your survey?

"Status" refers to a species' probable relationship to a place as either native or introduced, naturalized or planted/ornamental, and indigenous or endemic if native. Plant status is obtained from the botanical literature.

"Abundance" is a quantitative or semi-quantitative (i.e., relative) measure or statement that roughly describes the number or frequency of occurrence of a species. Typically we use semi-quantitative measures like "common" and "rare" that describe not the absolute number but the frequency one can expect to encounter a species in wandering about the area. These are "semi-quantitative" because they are only loosely tied to absolute numbers of individuals present.

33. Based on your survey, what types of botanical species are located within the Project area?

The site is characterized mostly by naturalized, introduced (non-native) species that typify the lowlands of leeward Oahu and by species that tend to establish populations on disturbed lands. These latter are also mostly naturalized species.

34. Of the total number of botanical species encountered, did you find any that were endemic or indigenous?

Yes, of some 73 flowering plant species encountered in my survey, 8 are thought to be native (indigenous or endemic). These are:

Sesuvium portulacastrum (I)
Heliotropum currasavicum (I)
Ipomoea indica (I)
Jacquemontia ovalifolia (I)
Sicyos pachycarpus (E)
Sida fallax (I)
Solanum americanum (I)
Waltheria indica (I or Polynesian introduction)

35. Of the total number of botanical species that were encountered, did you find any that are considered threatened or endangered by either the State of Hawaii or the federal government?

I did not.

36. Would seasonal differences affect the findings of your survey?

Yes. The survey period was a good one for discovering botanical resources. Many ruderal plants have short growing periods and some might simply be present as unobservable seeds in the soil at the time of a survey. With a few exceptions (*Sicyos* being one), native plants, and especially listed native plants from the 'Ewa Plain are not annuals, although some (such as *'Ewa 'akoko*) might be found with few or no leaves at the height of the dry season, and thus difficult to observe. Because of an abundance of late rains, the late Spring of 2006 was an ideal time to observe and identify plants in the normally dry, leeward coast of Oahu. The observation of *Sicyos pachycarpus* (a native annual, obvious in this area only in the wet season) confirms this: *Sicyos pachycarpus* disappears as the soils dry out.

37. Are you aware of any studies, similar to yours, that reported other threatened or endangered botanical species encountered in the Project area?

I also included in our report a survey that overlapped our survey area conducted by the late Winona Char in 1989, and included all of the species she encountered (several native species) in the species list prepared for the report. She reported no listed species from the area. However, at least one (1) listed species, the *'Ewa 'akoko* (*Chamaesyce skottsbergii* var *skottsbergii*), was once found in this area. I believe the population was destroyed when the deep draft harbor was dredged. A number of other native species were reported from the 'Ewa Plain by Char and Balakrishnan in the late 1970s. While some of these can still be found, the listed, *Achyranthes splendens* var. *rotundata* has not been seen in the project area in the last two decades or for even longer.

38. Based on your review of other studies, did you look for specific threatened or endangered botanical species?

Yes. I am very familiar with the two (2) listed species described above. I am presently leader of a team managing three (3) *'Ewa 'akoko* populations at Kalaeloa (formerly BPNAS) and have reared and planted out numerous *'Ewa hinahina* (*A. splendens*) from a planted population on windward Oahu.

39. What threatened or endangered botanical species, if anything, did you find?

Neither species was observed. Large numbers of a similar but introduced species of "*'akoko*" (*Chamaesyce hypericifolia*) were observed along the old OR&L tracks at the north end of the property. Also, the introduced *Achyranthes aspera* was observed by myself and by Winona Char in this area in previous surveys; but this plant is easily distinguished from the related *'Ewa hinahina*.

40. Based upon your findings, will the reclassification and development of the Project area have an adverse impact on botanical resources in the Project area?

No. The plants that are present are mostly non-native species that are common on leeward Oahu. The relatively few native species present are also widely distributed on leeward Oahu. No plants that are federally listed or even particularly rare or of concern were found on the property. A majority of the area is already highly disturbed, a condition that likely applies to the entire area proposed for the development if one goes back 50 or 100 years when substantial populations of native plants might have been present at the site.