

BEFORE THE LAND USE COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Petition )  
 )  
 of the )  
 )  
 DEPARTMENT OF PLANNING AND )  
 ECONOMIC DEVELOPMENT, STATE OF )  
 HAWAII, To Amend the Conservation )  
 Land Use District Boundary to )  
 Reclassify Approximately 224 Acres, )  
 TMK 7-3-10: portion of 33 at )  
 Ke-ahole, North Kona District, )  
 Island and County of Hawaii, into )  
 the Agricultural Land Use District )  
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DOCKET NO. A79-458  
FINDINGS OF FACT,  
CONCLUSIONS OF LAW  
AND DECISION AND ORDER

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FINDINGS OF FACT, CONCLUSIONS OF LAW AND  
DECISION AND ORDER

The above-captioned land use boundary amendment proceeding was initiated by the petition of the Department of Planning and Economic Development (hereinafter "Department") pursuant to Chapter 205, Haw. Rev. Stat., and the Rules of Practice and Procedure of the Land Use Commission, State of Hawaii, to amend the land use district boundary of certain lands (hereinafter referred to as the "subject property") situated at Ke-ahole, North Kona, Hawaii, from the Conservation to the Agricultural Land Use District, and the Commission, having heard and examined the testimony and evidence presented during the hearing held on August 2, 1979, in Kailua, North Kona, Hawaii, hereby makes the following findings of fact and conclusions of law.

## FINDINGS OF FACT

### PROCEDURAL MATTERS.

1. The petition was filed on May 17, 1979, by the Department to amend the Conservation District at Ke-ahole, North Kona District, Island and County of Hawaii, to reclassify approximately 224 acres into the Agricultural District.
2. Notice of the hearing, scheduled for July 25, 1979 at 9:30 a.m., Kealakehe Elementary School, Kailua, Kona, was published in the Honolulu Advertiser and the Hawaii Tribune Herald on June 15, 1979.
3. The hearing was rescheduled for August 2, 1979 at 9:30 a.m., and notice of the rescheduled hearing was published in the Honolulu Advertiser and the Hawaii Tribune Herald on July 3, 1979.
4. No petitions for intervention were received on the petition.
5. On July 24, 1979, an untimely request to appear as a public witness was received from Elizabeth Stone and children.
6. On August 2, 1979, the Commission accepted Elizabeth Stone's request to testify as a public witness.

### DESCRIPTION OF THE SUBJECT PROPERTY.

7. The subject property is located at Ke-ahole in the North Kona District of the Island of Hawaii, approximately six miles north of the town of Kailua-Kona and one mile mauka of Ke-ahole Airport, fronting the mauka (east) side of Queen Kaahumanu Highway.
8. The subject property consists of approximately

224 acres and is a portion of the parcel identified as TMK 7-3-10:33 (portion). Said parcel consists of a total area of 2,608.180 acres, being a portion of the government lands of Ooma 1st, Kalaoa 1st-4th, Hamanamana and Makaula and Government (Crown) Land of Haleohiu.

9. The State of Hawaii holds fee simple title to the subject property which was acquired by the State as provided under Section 5 (b) of the Admission Act (Act of March 18, 1959; Public Law 86-3, 73 Stat. 4).

10. Present encumbrances on the subject property include a 60-foot right-of-way for the Kona Palisades Access Road; an 80-foot right-of-way for the Ke-ahole Airport reservoir, a Hawaii Electric Light Company substation, and a diesel plant; and overhead power line easements. In addition, there is a five-foot pipeline right-of-way granted to the Huehue Ranch for maintenance and repair purposes. These encumbrances will not be affected by the proposed agricultural park.

11. The subject property is presently unused and consists of large barren masses of lava interrupted by patches of scrub vegetation. Located within TMK 7-3-10:33 outside the subject property, are a water storage reservoir, a Hawaii Electric Light Company substation, a diesel plant, and the appurtenant overhead power lines. Directly across Queen Kaahumanu Highway from the northwest corner of the subject property, on its makai (west) side, is the entrance to Ke-ahole Airport. Surrounding the subject property on its northern, eastern, and southern sides are barren, unused lava and scrub brush lands similar to the terrain of the subject property.

The Kona Palisades Access Road which bisects the subject property leads to the Kona Palisades residential subdivision in the mauka Agricultural District.

12. The land within the subject property is gently rolling, with eight to ten percent slopes. The elevation of the general area ranges from approximately 140-foot to 330-foot contours.

13. The geology of the subject property is dominated by the Hualalai volcanic series. The surface is generally lacking in soil material, and is classified by the USDA Soil Conservation Service Soil Survey of the Island of Hawaii (December, 1973) as rLV lava flows, Aa; rLW lava flows, pahoehoe; and small sections of rPYD Punaluu extremely rocky peat, six to 20 percent slopes.

14. The Land Study Bureau Bulletin No. 6, Detailed Land Classification-Island of Hawaii (November, 1965), classifies the surface of the subject property as follows: E259 Aa; E289 almost bare pahoehoe; E292 almost bare pahoehoe; E319 bare aa lands; and E320 bare pahoehoe. All the land types except E292 are unsuited for machine tillability; E292 is very poorly suited for machine tillability; and E319 is "usable if rolled and smoothed."

15. The subject property is not classified in the Department of Agriculture's system of "Agricultural Lands of Importance to the State of Hawaii."

16. The climate of the Ke-ahole region is warm and semi-tropical, with mild seasonal changes and fairly uniform temperatures. Mean daily minimum and mean daily maximum temperatures are 69 and 83 degrees Fahrenheit, respectively.

Annual rainfall in the vicinity of the subject property averages only about 20 inches.

PROPOSAL FOR DEVELOPMENT.

17. The Department of Agriculture proposes to develop, with the assistance of the Department of Land and Natural Resources, an agricultural park for the production of decorative plants, foliage, and other crops in shade houses on the subject property.

18. A "Conservation District Use Application" for the proposed diversified agricultural use was approved by the Board of Land and Natural Resources on March 23, 1978 with the understanding that "[t]he applicant shall forego subdivision procedures and requirements until such time as the requested area is reclassified by the State Land Use Commission."

19. Phase I of the agricultural park development will consist of 10 5-acre lots, one 8-acre lot, one 6-acre lot for agricultural experiments, and one 2-acre reserve lot. The total area of the Phase I development is approximately 75 acres. Construction of Phase I roads and utilities was completed in May, 1979. On July 27, 1979, the Board of Land and Natural Resources authorized the advertising and issuing of leases of the lots in Phase I, subject to subdivision approval. Annual lease rentals will be determined after an appropriate appraisal is made, and with due consideration to the objective of providing reasonable lease rentals to farmers. Phase I of the agricultural park is anticipated to be occupied and in use by the end of 1980.

20. Phase II of the agricultural park will consist of additional, primarily 5-acre, lots. The total area of Phase II will be approximately 149 acres.

The development of Phase II is now in the planning and design stage and is also pending availability of adequate water supply as well as further archaeological study and possible salvage work. Allowing for resolution of these matters, design, construction, subdivision and leasing of Phase II is expected to take from two to three years following the completion of Phase I.

21. Phase I costs are contracted at \$16,000 for archaeological work, \$96,000 for engineering, and \$593,000 for construction, for a total of \$705,000, to be paid from State funds. Phase II cost estimates are not available at this time.

22. Single-family residences may be constructed (one per lot) at the option of individual farmers. Construction of production facilities and residences will be the responsibility of the farmers.

23. The agricultural park development will conform to the standards adopted by the County of Hawaii for agricultural subdivisions and will include all the required utilities and roads.

#### STATE AND COUNTY PLANS.

24. The subject property is designated as extensive agriculture in the County of Hawaii General Plan Land Use Allocation Map.

25. The area is zoned "open" and zoning change will be required for the proposed use.

26. The EIS for the project was approved by the Governor on December 13, 1977.

NEED FOR GROWTH AND DEVELOPMENT.

27. The State Legislature has found a need for agricultural parks, and has empowered the Board of Land and Natural Resources to develop such parks on public lands provided that the development is situated within a State Land Use Agricultural District. The Legislature has also, by resolution in 1975 and again in 1977, expressed its strong support for the establishment of an agricultural park at Ke-ahole, Kona, specifically for dendrobium orchid enterprises and related flower, foliage and ornamental plant operations.

28. The Ke-ahole Agricultural Park is a top priority project of Governor Ariyoshi and the State Administration.

29. Strong support for the proposed Ke-ahole Agricultural Park has been expressed by the Kona farming community, and expressions of interest in leasing farm lots have been received from over 20 farmers as of the date of the petition.

30. The subject property is considered a prime location for the proposed Agricultural Park for the following reasons:

a. It is located in a climatic zone uniquely favorable to shade house production of dendrobiums and other potted foliage plants.

b. The nematode-free environment, lower rainfall,



and greater amount of sunshine at Ke-ahole are favorable factors.

c. Accessibility is excellent by way of Kona Palisades Access Road and Queen Kaahumanu Highway. The location adjacent to Ke-ahole Airport provides convenient access to air shipment of the flowers and foliage products.

d. Alternative State-owned sites in the general vicinity would incur substantially higher development costs due to rougher topography and greater distances required for extension of existing water and power lines.

31. The dendrobium orchid, one example of intensive crop production on the subject property, is considered to be a very promising floral product on the Hawaiian and mainland markets, and will produce an estimated annual net return of \$8,890 per acre, based on a five-acre farm lot with four acres in cultivation.

If the entire agricultural park were in dendrobiums, maximum gross return would amount to \$45,000 per acre or \$7,065,000 per year for the estimated 157 acres in crop within the 224-acre park development. Total net returns for the entire 224-acre project would amount to \$1,395,730 per year. For Phase I (52 acres in crop), gross returns would amount to \$2,340,000 with net returns of \$462,280.

Intensive dendrobium production would require a working manager per farm and an additional 1-1/4 workers per acre in crop. For the 224-acre agricultural park with 29 farms, this would amount to 29 working managers with an additional 196 workers for the 157 acres which would be in crop. Thus,

total employment would amount to 225 workers. Phase I of the development with 52 acres in crop would require 12 working managers and 65 other workers for a total employment of 77 workers.

Additional employment will also be created for local contractors, laborers, and materials suppliers during the stages of construction of roads, utilities, and structures on the subject property.

#### RESOURCES OF THE AREA.

##### Groundwater Resources

32. Impact on groundwater underlying the area is expected to be insignificant. Sewage which reaches the underlying groundwater is not expected to have a significant impact because it is much smaller than the groundwater flux, and most of the possibly detrimental material will be removed by its passage through the intervening geological formations. The chemical sprays used on the dendrobiums would be largely absorbed by the plants.

##### Biological Resources

33. The subject property has only sparse natural vegetation. The area has few endemic and indigenous plants-- few in both numbers of species and specimens of each species-- and those present are not rare since they are found in other areas on the island. No native birds were seen or heard except for one owl (Pueo) and the feces of others seen near a roosting place in a lava tube. Such owls, when frightened, will take up abode elsewhere and therefore are not endangered.

##### Recreational Resources

34. The subject property has little or no value

as a recreational resource; therefore, development of the agricultural park will have no significant effect on the recreational resources of the area.

#### Historical and Archaeological Resources

35. The subject property has historic and archaeological resource values. There are five recorded sites within the property, none of which, however, fall within the boundaries of the Phase I development. The archaeological survey for Phase I areas, completed by Archaeological Research Center Hawaii, Inc. has located the known sites well enough to permit avoidance, where possible, during construction of the agricultural park. Further plans for investigation, nomination, and salvage or preservation of these known archaeological sites will be reviewed through the State Historic Preservation Office. A contract has been signed with Archaeological Research Center Hawaii, Inc. for the archaeological survey of the Phase II area. Only after the necessary archaeological work has been completed, will construction be initiated on Phase II of the agricultural park.

#### Air Quality, Noise and Visual Quality

36. During construction, dust and emissions from construction vehicles will be generated. The impact of these pollutants, however, will be localized and temporary. After completion of the on-site improvements, dust from agricultural activities and from vehicles associated with the agricultural park is expected to be insignificant. Chemical sprays required for the control of insects and diseases of dendrobiums are not expected to have an adverse effect on the atmosphere.

In any event, it is assumed that all major crops will be grown in shade houses or greenhouses and that there will be no opportunity for the wind to blow sprays on other plants for which the spray was not intended.

37. There are no residential or commercial areas in the vicinity of the subject property that will be affected by any noise generated from construction activity or farming operations at the agricultural park.

38. The visual impact of the subject property as viewed from Queen Kaahumanu Highway will consist of agricultural activities, greenhouses, farm equipment, and several residences. The net effect is expected to be generally attractive to many people in that there will be a relief from the monotony of the surrounding lava fields. Previously expressed concerns regarding the visual impact of overhead utility lines for the agricultural park development have been resolved by the concurrence of the Department of Transportation and the County of Hawaii in the use of an overhead installation.

#### PUBLIC SERVICES AND FACILITIES.

##### School Services

39. The Kealakehe Elementary School services grades K-8 students in the vicinity of the subject property, while the Konawaena High School services all the grades 9-12 students in the Kona area.

##### Sewage and Wastewater Services

40. Sewage disposal in the Ke-ahole Agricultural Park will be by cesspool. Individual tenants will be respon-

sible for construction of cesspools in conformance with the Department of Health Rules and Regulations. It is estimated that the total daily domestic sewage discharge from 29 residential lots will be 8,700 gallons.

#### Water Services

41. Water demand for the agricultural park is estimated at 3,000 gpd per acre for irrigation of dendrobiums and other potted foliage plants, plus sufficient water for domestic use. Based on this estimate, approximately 200,000 gpd would be required for the Phase I development. A commitment of 480,000 gpd was requested of the County of Hawaii's Department of Water Supply to fulfill the requirements of full development of the agricultural park. The Department of Water supply committed approximately 100,000 gpd to the agricultural park for use late in 1977. A commitment for an additional 100,000 gpd for the needs of Phase I was made in June, 1979 upon completion of the Phase II of the Kahaluu Shaft project. Completion of the Kuakini transmission project will assure the agricultural park the additional 280,000 gpd necessary for full development. Phase I of this project is anticipated to be completed in 1980.

#### Solid Waste Disposal Services

42. Disposal of solid waste may take place at the available sanitary landfills for the Kona Coast area.

#### Drainage

43. Surface runoff from the subject property will be conducted at the existing drainage system at Queen Kaahumanu Highway.

#### Road and Highway Services

44. Kona Palisades Access Road, a public road which connects to Queen Kaahumanu Highway, will provide access to the Ke-ahole Agricultural Park. With the development of 29 lots, the agricultural park is anticipated to generate no more than 290 trips per day, or a maximum of 29 vehicles during peak hours. This volume of traffic would not create any congestion of the access road.

#### Fire and Police Protection Services

45. The police station serving the Kona Coast is located at Captain Cook, approximately 17 miles from the subject property. Fire stations are located at Captain Cook and at Kailua.

#### Public Utility Services

46. Overhead utility poles and lines will be constructed and service provided on demand by Hawaii Electric Light Company and Hawaiian Telephone Company according to their rules and regulations.

#### CONFORMANCE WITH INTERIM STATEWIDE LAND USE GUIDANCE POLICIES AND STATE LAND USE DISTRICT REGULATIONS.

47. The proposed land use amendment is reasonably necessary to accommodate growth and development.

48. There will be no significant adverse effects upon agricultural, natural, environmental, recreational, scenic, historic, or other resources of the area.

49. Adequate public services and facilities are available or can be provided at reasonable costs to the State of Hawaii.

50. The proposed district boundary amendment is in conformity with the County General Plan designation for the area.

51. Reclassification of the subject Conservation District lands is necessary and desirable in this case.

52. When developed as proposed, the subject lands will have a high capacity for agricultural production.

53. When the mitigating measures proposed have been taken, the subject property will not be necessary for the conservation, preservation and enhancement of historic or archaeological sites.

#### RULING ON PROPOSED FINDINGS

Any of the proposed findings of fact submitted by the Petitioner or the other parties not already ruled upon by the Land Use Commission by adoption herein, or rejected by clearly contrary findings of fact herein, are hereby denied and rejected.

#### CONCLUSIONS OF LAW

Pursuant to Chapter 205, Haw. Rev. Stat., the Rules of Practice and Procedure, and the District Regulations of the Land Use Commission, the Commission concludes that all of the legal requirements of notice and hearing were complied with in the Petition for Reclassification of approximately 224 acres of land situate at Ke-ahole, North Kona District, Island and County of Hawaii, State of Hawaii, from the Conservation to Agricultural District, and the Commission, having heard and examined all of the record, evidence, and arguments of counsel,

concludes that the boundary amendment conforms to the standards established for the Agricultural Land Use District by the State Land Use District Regulations and is consistent with Haw. Rev. Stat. § 205-2, the Interim Statewide Land Use Guidance Policies established pursuant to Haw. Rev. Stat. § 205-16.1, and State Land Use District Regulation 6-1.

ORDER

FOR GOOD CAUSE appearing, it is hereby ordered that the property which is the subject of this Petition in Docket Number A79-458, consisting of approximately 224 acres of land situate at Ke-ahole, North Kona District, Island and County of Hawaii, State of Hawaii, identified as Tax Map Key 7-3-10: portion of 33, shall be and the same is hereby reclassified from the Conservation District to the Agricultural District classification, and the district boundaries are amended accordingly.

DONE at Honolulu, Hawaii, this 8th day of January, 1980, per motion on October 16, 1979.

LAND USE COMMISSION  
STATE OF HAWAII

By *C. W. Duke*  
C. W. DUKE, Chairman and  
Commissioner

By *Shinsei Miyasato*  
SHINSEI MIYASATO, Commissioner

By *Mitsuo Oura*  
MITSUO OURA, Commissioner



By *George R. Pascua*  
GEORGE R. PASCUA, Commissioner

By *Carol B. Whitesell*  
CAROL B. WHITESELL, Commissioner

By *[Signature]*  
EDWARD K. YANAI, Commissioner

By *William Yuen*  
WILLIAM YUEN, Commissioner

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 District at Ke-ahole, North )  
 Kona District, Island and )  
 County of Hawaii )  
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Docket No. A79-458

CERTIFICATE OF SERVICE

I hereby certify that a copy of the Land Use Commission's Decision and Order was served upon the following by either hand delivery or depositing the same in the U. S. Postal Service by certified mail:

HIDETO KONO, Director  
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State of Hawaii  
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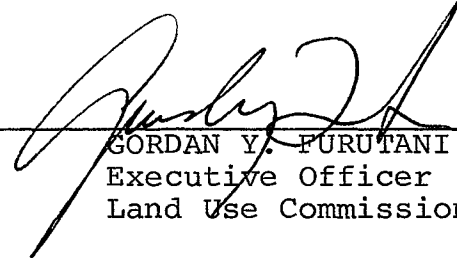
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State of Hawaii  
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Honolulu, Hawaii 96814

DATED: Honolulu, Hawaii, this 17th day of January, 1980.



GORDAN Y. FURUTANI  
Executive Officer  
Land Use Commission