

BEFORE THE LAND USE COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Petition of )  
 )  
COUNTY OF HAWAII, DEPARTMENT OF )  
PUBLIC WORKS )  
 )  
For a Special Permit to Establish )  
a Sanitary Landfill, Access Road, )  
and Related Improvements on )  
Approximately 300 Acres of Land )  
Situated Within the State Land )  
Use Agricultural District at )  
Pu'uanahulu, North Kona, Hawaii, )  
Tax Map Key No.: 7-1-03: portion )  
of 1 )  
\_\_\_\_\_ )

DOCKET NO. SP91-379  
COUNTY OF HAWAII,  
DEPARTMENT OF PUBLIC WORKS

This is to certify that this is a true and correct  
copy of the Decision and Order on file in the office  
of the State Land Use Commission, Honolulu Hawaii.

FEB 18 1992 by *Edward Leed*  
Date Executive Officer

FINDINGS OF FACT, CONCLUSIONS OF LAW,  
AND DECISION AND ORDER

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LAND USE COMMISSION  
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FINDINGS OF FACT, CONCLUSIONS OF LAW,  
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The County of Hawaii, Department of Public Works (hereinafter "Applicant") initiated this proceeding pursuant to Section 205-6, Hawaii Revised Statutes, as amended, and Subchapter 12 of the Hawaii Land Use Commission Rules. The Land Use Commission (hereinafter "LUC"), having considered the entire record on this matter, hereby makes the following findings of fact, conclusions of law, and decision and order:

FINDINGS OF FACT

PROCEDURAL MATTERS

1. The Special Permit Application (hereinafter "Permit") for the establishment of a sanitary landfill, access road, and related improvements (hereinafter "Project") on approximately 300 acres at Pu'uanahulu, North Kona, Hawaii, was filed by the Applicant with the Hawaii County Planning Department (hereinafter "Department") on October 18, 1991.

2. Inasmuch as the proposed Project entailed the use of County funds and State lands, the Environmental Impact Statement process was triggered pursuant to Chapter 343, HRS. A Final EIS was prepared by the Applicant and accepted by the Department on October 31, 1991.

3. The Hawaii County Planning Commission (hereinafter "Planning Commission") conducted the public hearing on the Permit on November 21, 1991 pursuant to notice published in the Hawaii Tribune Herald and the West Hawaii Today on November 10, 1991. At its November 21, 1991 hearing, the Planning Commission received public testimony from Francis Ruddle, who expressed concerns over the plans of the County once the Project reaches the end of its operating life expectancy and the potential litter problem from the Project on adjacent areas.

4. On November 21, 1991, the Planning Commission recommended approval of the Permit to the LUC subject to 16 conditions. The LUC received the record of the County's proceedings on the Permit on December 10, 1991.

#### DESCRIPTION OF THE PROPERTY AND SURROUNDING AREA

5. The Special Permit area (hereinafter "Property") consists of approximately 300 acres located at Pu'uanahulu, North Kona, Hawaii, and is identified as Tax Map Key No.: 7-1-03: portion of 1. The entire parcel consists of 20,930 acres.

6. The Property is located approximately 3,000 feet east (mauka) of Queen Kaahumanu Highway between the 80 and 200

feet elevations and approximately 6,600 feet or 1.2 miles inland from Pueo and Keawaiki Bays.

7. Existing slopes average 2 to 5 percent throughout the area leading up to the Property.

8. Annual average rainfall in the area is 10-20 inches. Temperatures range from 75°F to 98°F. and humidity is generally under 50 percent during the late morning and afternoon hours.

9. The mountains of Mauna Loa, Mauna Kea, and Hualalai block the prevailing northwest trades and a land/sea breeze system is predominant. Typical wind velocities range from 40-50 mph.

10. According to the U.S.D.A. Soil Survey Report, soils of the area are classified a'a (rLV) and pahoehoe (rLW) lava flows. These soil types are sparsely vegetated, with little or no soil covering. The Property substrate is covered with crumbled a'a and small ridges of pahoehoe lava. The a'a flow on the Property is largely barren with few plants found in small, isolated pockets of soil and rubble or spreading in from the edge of the flow where it meets the Kiawe forest or fountain grass. Moist pockets of soil on the pahoehoe outcroppings support mosses and scattered lichens.

11. The Land Study Bureau's Detailed Land Classification Report has designated most of the area as Class E or very poor for agricultural productivity.

12. The State of Hawaii's Agricultural Lands of Importance to the State of Hawaii (ALISH) system has no classification for the lands.

13. According to the U.S. Army Corps of Engineers Flood Insurance Rate Map (FIRM), the Property is outside of the 500-year floodplain (Zone X).

SUMMARY OF PROPOSED USE

14. The Applicant is requesting the Permit to establish a sanitary landfill, access road, and related improvements. A sanitary landfill is an engineered method of disposing of solid wastes on land. It includes three components: spreading the waste material into thin layers; compacting the waste material to the smallest practical volume; and daily cover of soil. All three steps are necessary to reduce settling problems, fires, flies, rat breeding, as well as to conserve space.

15. The landfill will be developed in five increments. Each increment is determined from the projected in-place cumulative refuse volume. Each increment will accommodate approximately five years of refuse generation, except for Increment 1, which will accommodate six years of refuse generation.

16. The Project will utilize the "ramp" or "progressive slope" method. In this method, the refuse is spread and compacted by standard landfilling equipment, then covered with either stockpiled or imported soil. This process

is repeated creating a succession of slopes across the landfill. When one layer or lift covers the landfill floor, the second lift is begun.

17. The maximum working slope for each refuse cell will be 3 to 1 and the lifts will be 15 feet high. The refuse is to be compacted to a density between 80 to 1,200 lbs/cy. The final slope will not exceed 4 to 1 for this proposed Project. Construction of the landfill will take place prior to the opening of the landfill.

18. The Property must be excavated before the landfill is opened. The larger rocks from the excavated earth will be removed to obtain material satisfactory for cover soil. The cover soil will be stockpiled for future use.

19. The excavation also shapes, compacts, and prepares the bottom of the landfill to insure proper functioning of the leachate collection system. The finished landfill will be a prepared excavated area complete with stockpiled cover material and leachate and gas control devices ready for operation using the ramp method.

20. The landfill will be designed to have an impermeable compacted soil membrane of up to 24 inches in thickness to line the bottom of the landfill to help prevent leachate migration into the groundwater table. Furthermore, a leachate collection and treatment system will be installed to handle any leachate that is generated on-site.

21. The collection system will consist of a network of perforated pipes installed at the bottom of the landfill. The perforated pipes will be connected to manholes which will serve as sampling/storage wells. Leachate will be intercepted by the perforated pipes and will flow into the manholes. The accumulated leachate will be pumped from these manholes in batch operations periodically and supplied to the landfill as a means of disposal. Leachate reapplication will allow the leachate to be reduced by evapotranspiration and stabilized as it filters through the landfill. The actual system will be based on slopes of landfill and other topographic and geotechnical considerations.

22. The operations of the landfill will also include grading for the purpose of developing drainage swales to divert surface runoff around and from the landfill area. The final grades will tie into the natural contours.

23. The cover soil for the landfill will be a well-graded mixture of fine and coarse components. There will be sufficient cover material to insure 1 part of cover soil to 4 parts compacted refuse (based on daily cover).

24. An 8-foot high chain link fence will be installed along the access road and around the landfill site to prevent litter from entering adjacent areas.

25. Access will be a paved two-lane road with a 50-foot wide right-of-way leading to the Property from Queen Kaahumanu Highway for a distance of approximately 3,000 linear

feet. Entry will be controlled by a gate at Queen Kaahumanu Highway.

26. A single-story weigh station of 396 square feet, a butler type 6,000 square foot office/storage and equipment building and a single-story 1,056 square foot administration building will be included on the Property. These facilities will be serviced with potable water and wastewater collection systems. In the short-term, potable water will be made available through a temporary storage system.

27. The selection of the Property as the Project site was based on several locational criteria including the following:

- a. Low rainfall
- b. Availability of cover material (near or on-site)
- c. Sufficient safe distance from drinking water sources
- d. Proximity of residential and resort development
- e. Aesthetic impacts (visual, odor, dust, noise)
- f. Proximity to refuse generation sources
- g. Adaptability to a resource recovery facility
- h. Construction costs
- i. Environmental impacts on flora and fauna

28. An ad hoc West Hawaii Advisory Committee for Solid Waste Disposal formed in 1986 and reactivated in 1990 selected the Property as the most desirable site meeting the criteria after studying several alternative sites.

#### NEED FOR THE PROPOSED USE

29. Based upon evidence from the Final EIS, the LUC finds that the existing Kailua Landfill, which is operated by the County of Hawaii to service West Hawaii, is near its capacity. With the rapid growth of West Hawaii, particularly



North Kona, South Kohala, and Kamuela, a new sanitary landfill is necessary to accommodate the projected increase in refuse generation.

30. The Project is primarily needed to replace the Kailua site and would serve as West Hawaii's only landfill facility accommodating initial solid waste volumes of 70,300 tons per year and more as the population increases.

31. Based on population projections and extrapolations to the year 2015, West Hawaii population is expected to grow from 40,000 in 1989 to 122,000 by 2015.

32. Based on the population projections of 122,000 persons, the Project will receive a total of 134,000 tons of refuse per year by the year 2015.

33. The refuse generation projections calculated for West Hawaii are based on defacto population figures obtained from the State Data Book, 1988, and a refuse production rate of 6.0 lbs/capita/day. The population for North/South Kona and North/South Kohala was used to estimate West Hawaii's population. The 1982 Kona Regional Plan estimated between 70-85 percent of Hawaii County's de facto population will be in West Hawaii. To determine the population projections up to the year 2015, the resident and de facto population for West Hawaii were plotted in graph form. A straight line population projection, based on the population growth from the year 2000 to 2010, was used to determine the population growth to the year 2015.

34. Due to the lack of current data for Hawaii County, the production rate was based on information from the "Oahu Solid Waste Management Plan," May 1983. Oahu's Plan estimated the solid waste production rate to be 5.7 lbs/capita/day from the year 1985 to 2000. The 6.0 lbs/capita/day is adjusted for West Hawaii because resorts and rural areas generally produce more refuse per capita than urban areas. By the year 2015, 5,559,000 cubic yards of compacted refuse is expected to be accommodated.

35. The total 170-acre area needed for the proposed landfill was determined by using the cumulative volume of in-place compacted refuse for the year 2015. The total area needed was based on a 4 to 1 refuse-to-cover ratio, 25 percent buffer area, and a landfill depth of 30 feet.

#### STATE AND COUNTY PLANS AND PROGRAMS

36. The State Land Use District designates the Property within the Agricultural District as reflected on State Land Use District boundary map, H-5, Anaehoomalu.

37. The General Plan Land Use Pattern Allocation Guide (LUPAG) Map designates the Property for Extensive Agricultural uses.

38. That portion of the Property on which the landfill is proposed is zoned Unplanned by the Hawaii County Zoning Code.

39. The property is not situated within the Special Management Area (SMA) of the County of Hawaii.

40. The Property is located makai of the Underground Injection Control (UIC) line.

41. The West Hawaii Regional Plan prepared by the Office of State Planning dated November 1989 sets forth the critical topical issues which require State attention in order to most effectively meet the region's present and emerging needs. Strategies to address and alleviate the problems were identified followed by courses of action. Included in the plan was an evaluation of solid waste disposal. The plan cited the following problem statement, strategy and rationale:

"Problem Statement

Solid waste and disposal systems for the West Hawaii area consist of a County operated landfill in the Kealakehe area near Kailua-Kona. The County does not provide refuse collection service to individual residences or businesses in this area. Each household must take its refuse to a centrally located compactor-transfer station or the landfill. Refuse collected by private contractors must take their refuse to the landfills.

The current landfill at Kealakehe has an estimated life of 3 to 4 years before reaching its capacity. Considering the potential amount of solid waste to be generated in the future (60,000+ tons/year for residences only, based upon a population of 10,000 and a daily generation rate of 3.3 pounds per capita) and the short life expectancy of the Kealakehe landfill, it is important that a new landfill be sited and developed and the existing Kealakehe site be corrected to allow further development there. The County of Hawaii is currently in the process of selecting a new site for a new sanitary landfill in the Puuanahulu area.

Another problem of the existing landfill is the air pollution it creates. Landfills dispose of wastes by covering wastes. In the West Hawaii region, top soil is too costly so cinder is used to cover wastes instead. Maliciously set fires are not extinguished by

the cinder and large, subterranean fires burn constantly. Smoke from these fires escape through the cinder so the landfill is continually emitting noxious fumes.

Due to the vastness of the region and the existence of only one landfill, residents bring their wastes to compactor transfer stations that include:

North Kohala:	Ka'auhuhu Homesteads
South Kohala:	Puako Waimea
North Kona:	Kealakehe Keauhou Keeki
South Kona:	Waiea

While the facilities are located in strategic areas, they are generally over 10 years, old, making renovation of these facilities a paramount concern. In addition, rapid population increases and new residential developments have resulted in the need for new and expanded transfer stations. Already, several private waste-hauling firms have been used by residents.

In view of the potential volume of solid waste to be handled by the County of Hawaii in the future, the County should investigate cost effective methods of volume reduction.

#### "Strategy

Assist the County in addressing problems involved in solid waste disposal.

#### "Actions

\*Support the County of Hawaii's plan to site and develop a new sanitary landfill in the West Hawaii region.

\*Site a sanitary landfill for the region prior to the closing of the Kealakehe landfill.

\*Undertake corrective measures at the Kealakehe landfill.

\*Investigate alternative methods of volume reduction related to solid wastes.

\*Investigate alternative methods of covering wastes to ensure that continual burning does not occur.

\*Support County efforts to renovate existing transfer stations.

\*Support County efforts to expand and develop new transfer stations.

"Rationale

Solid waste disposal is a County function and, generally, the State does not get involved in the siting and development of a new landfill site. The emerging issue in West Hawaii, as in other parts of the State, is the desirability of continuously disposing our solid wastes into landfills. The effects of this practice on public health and groundwater make this a State issue as well as a County one.

A new landfill will help solve the County's immediate needs, but the long-term benefits may not be realized. It would be prudent of the State and the County to develop alternate ways of disposing and reducing the amount of solid wastes."

SUMMARY OF STATE AND COUNTY AGENCY COMMENTS

42. The County Department of Water Supply, Fire Department, Parks and Recreation, Real Property Tax Office, Civil Defense, Soil Conservation Service, and the Department of Agriculture raised no objections to the proposed Permit.

43. The Department of Education offered the following comments on the proposed Project:

"Our review of the subject application indicates that the proposed project will have no impact on the enrollment of public schools in the area.

"The Department of Education would like to encourage the expeditious establishment of the new landfill so that the present landfill in Kealakehe can be closed and the pollution of nearby schools is eliminated."

44. The Department of the Army, the Office of Environmental Quality Control, the Environmental Center of the University of Hawaii, the Hawaii County Planning Department, the Department of Land and Natural Resources, and the Department of Transportation all had comments on the Draft EIS for the proposed Project, which are appended to the Final EIS. In addition, Hawaiian Electric Light Co., Inc., the Waikoloa Highlands office, Kohala Coast Resort Association, Pat Godfrey, and neighboring landowners, Alan Lowrey Brown et al. and Doris and Earl Bakken contributed comments which are attached to the Final EIS.

#### IMPACT UPON THE RESOURCES OF THE AREA

##### Agricultural Resources

45. An archaeological reconnaissance survey of the Property and access road was conducted by Cultural Surveys Hawaii in June and September 1991. Based on the survey, there is little archaeological evidence to indicate that the Property was utilized for agricultural activities.

##### Floral Resources

46. A Botanical Survey was performed by botanist, Winona Char, in April 1991. The botanist found no rare or endangered species of plant on the Property and expected impacts to botanical resources to be minimal. According to the botanist, there is a possibility that the grassland area may harbor a few plants of the pololei fern (*Ophioglossum*

concinnum), a candidate endangered species. The botanist recommended that a survey of the grasslands directly impacted by the proposed Project and a reconnaissance of the access road corridor be conducted. The botanist also recommended that a fire plan be reviewed and approved by the State Division of Forestry and Wildlife as well as the appropriate County agencies.

#### Faunal Resources

47. A survey of the avifauna and feral mammals at the Property was conducted by biologist, Phillip L. Bruner, in June 1991. The biologist observed no endemic birds at the Property. A number of exotic species of birds were observed as well as exotic feral mammals such as the mongoose, cats, goats, and dogs. The biologist noted that the Project will attract and possibly increase the population of these feral mammals as well as rodents unless there is an active control program implemented.

#### Archaeological and Cultural Resources

48. According to the archaeological reconnaissance survey done by Cultural Surveys Hawaii, a total of six sites were observed during the survey. The site types included lava tubes, a cave shelter, a C-shaped shelter, and a quarrying site. The sites were determined to be significant solely for their informational content and will be subject to appropriate data recovery. The proposed Project has been configured to avoid archaeological sites located during the survey. However, since several sites are in close proximity to the site, mitigative measures for preservation will be imposed.

### Groundwater Resources

49. The Property is located down gradient from any existing potable groundwater wells. The wells that are located closest to the proposed Project are privately owned and water is usable for irrigation purposes only since the chloride levels are too high. These are eight wells owned by Waikoloa Water Company located approximately two miles north of the proposed Project. The nearest known potable water source is located about five miles mauka of the Property, at the 2,380 foot elevation above the Belt Highway.

### Recreational, Scenic, and Cultural Resources

50. The closest public recreational facility is Kiholo Bay lookout, 5.5 miles south along the coast makai of the Queen Kaahumanu Highway. A public hunting preserve is planned south of the Property in the ahupuaa of Pu'uwa'awa'a. Ocean recreational uses are fishing activities that include lay and throw netting on the southern portion of Keawaiki Bay and trolling in the offshore waters.

## ENVIRONMENTAL QUALITY

### Air Quality and Noise Levels

51. No specific studies on the impact of the proposed Project on the air quality and noise level were conducted by the Applicant. The Final EIS offered the following analysis of impacts of the Project with respect to the potential problem of odor and noise:



"Adverse impacts will be minimized to the greatest extent possible by proper maintenance of the construction and landfilling equipment, good housekeeping procedures, and proper landfilling operations. Odor problems will also be minimized by proper solid waste handling and soil covering. Noise impacts will be minimized by not allowing operations in the evenings.

"The decomposition of solid wastes in a landfill produces a number of gases, most commonly carbon dioxide, methane, and hydrogen sulfide. The latter two gases are responsible for odors that may occur at improperly operated landfills. These gases can also be toxic or explosive in high concentrations.

"For larger landfills, systems are provided for the collection and burning of the gases which are produced. This landfill gas conversion system provides two beneficial results. The collected gas has a high caloric value and can be burned to produce energy. Additionally, collection of the landfill gas prevents its release into the atmosphere, thereby reducing odor problems and minimizing the release of noxious gases and the risk of explosions. The installation of a gas conversion system is being considered at this time.

"If a landfill gas conversion system is not installed as part of the project, the methane gas concentration will be monitored at the leachate removal manhole to prevent possible explosions. When the methane concentration exceeds 4 percent, the manhole cover will be removed to facilitate gas escape.

"The impacts of air pollution on adjacent properties will be minimal. The prevailing winds will carry any air-borne elements toward the north and northeast where there are hills, higher elevation lava fields, and no major urban areas.

"The closest urban areas relative to the project site are Waikoloa (approximately 2 to 3 miles north) and homes located alongside Keawaiki Bay (1.2 to 1.5 miles west). Of the two developments, Waikoloa would be in the receiving path of prevailing winds from the landfill. However, because of its distance from the project site, any odors and noise would dissipate before reaching Waikoloa.

"It should be noted again that the proposed project will minimize odor problems by covering the landfill with soil daily."

## Visual Impacts

52. The Final EIS offered the following analysis of visual impacts from the Project:

"Introduction of a sanitary landfill will minimally alter the existing view planes by disrupting the natural landscape of expansive lava flows from certain points along the northern sections of Queen Kaahumanu Highway looking southeast onto the project site. There will be no visual intrusion from Queen Kaahumanu Highway looking onto the project site.

"In order to minimize the visibility of the landfill from Queen Kaahumanu Highway and coastal areas, development of the site will include excavation by up to 25 feet. This will, in effect, create a "depression" at the makai end of the project site, thus minimizing any disruption to the existing views onto the site. Further, the height of the landfill will be limited from 25 to 30 feet above existing grades.

"Future expansion of the landfill will be in the mauka direction. Because the site increases in elevation design solutions including the following will be implemented to minimize view impacts:

- 1) The final grading plan will take a "land form alteration" approach so that the final product will look like a natural land form that will follow the existing contours rather than stand out as an intrusion on the landscape.
- 2) The landscape plan will be to maintain a continuity of surface treatments with adjacent areas; that is, rocks and/or natural grasses, etc., to limit the visual breakup.
- 3) Excavated soil and lava will be used to create berms for perimeter screening on the makai border of the landfill site.

"Stray dust from trucks and tractors at the landfill site will be visible from Queen Kaahumanu Highway. Camouflaging by the use of berms will help minimize these adverse view impacts."

## ADEQUACY OF PUBLIC FACILITIES AND UTILITIES

### Highways and Roadway Facilities

53. A Traffic Impact Assessment Report was prepared by Pacific Planning and Engineering dated June 1991. The Project will not have a significant impact on the traffic flow at the proposed intersection of Queen Kaahumanu Highway and the Project access road, when the Project begins operations in 1992, with recommended intersection improvements. Recommended improvements consist of channelization with left-turn storage lanes, deceleration, and acceleration lanes. Queen Kaahumanu Highway presently operates at a Level of Service (LOS) C. With and without the Project, the LOS will drop to LOS D.

### Drainage

54. The Property has no distinct drainage courses.

### Water

55. The Project is not within the service limits of the County's public water system.

### Solid Waste

56. There is a transfer station in Kaauhuhu serving the North Kohala District. Transfer stations have replaced open dump sites in Waimea and Puako in South Kohala. Solid waste disposal sites, all of which utilized open pit dumping, used to be located in Keauhou, Kailua, Waiea, and Kei. Transfer stations have replaced the dumps at Kailua, Keauhou, Napoopoo, Waiea, and Milolii.

## Fire

57. According to the South Kohala profile in the General Plan Support Document, a 24-hour fire facility is located in Waimea, with an 8-hour one-man facility located at Kawaihae. There are also 8-hour volunteer facilities located at Waikoloa and Puako. A 24-hour fire facility with police substation is located in the vicinity of Mauna Lani Resort entry road makai of the Queen Kaahumanu Highway.

58. In Kona, a 24-hour fire facility is located in Kailua with air, land, and sea rescue capabilities. There is also a volunteer station at Hualalai Ranch and at Kona Village Resort.

## Police

59. There is police service from Waimea, Mauna Lani, and Kealahou. The main police station serving all of Kona is located in Captain Cook in South Kona.

## CONFORMANCE WITH SPECIAL USE PERMIT TESTS

60. In support of the request, the Department provided the following:

"The granting of this request would promote the effectiveness and objectives of Chapter 205, Hawaii Revised Statutes, as amended. The State Land Use Law and Regulations are intended to preserve, protect, and encourage the development of lands in the State for those uses to which they are best suited in the interest of the public health and welfare of the people of the State of Hawaii. The project site is situated within the County's Unplanned zoned district and the State Land Use Agricultural District.

"The Agricultural District not only includes lands with a high capacity or potential for agricultural uses, but also includes lands which are surrounded by or contiguous to

agricultural lands that are not suited for agricultural or ancillary activities by reasons of topography, soils, and other related characteristics. The affected area is rated "E" or very poor for agricultural productivity by the Land Study Bureau's Overall Productivity rating system. The project site is unclassified by the State Agricultural Lands of Importance to the State of Hawaii (ALISH) system map. The low agricultural potential is further evidenced by the sparse vegetation and general lack of human occupation over the years. Thus, approval of this request would not significantly impact the existing agricultural resources of the North Kona District or the region.

"The existing Kailua landfill in Kealahou will reach capacity in 1991 and its expansion is not feasible because of its close proximity to proposed and existing municipal and residential uses. The Kailua Landfill is located in the State Land Use Conservation District and is surrounded by various uses including an animal human society and a police station. This landfill, as well as the proposed new landfill, must service the districts of North and South Kohala and North and South Kona. According to population projections by the State and County, West Hawaii will experience a 60± percent increase by the year 2000 and a 150± percent increase by the year 2015. With this growth rate, the amount of solid waste generated is also expected to increase dramatically despite alternative disposal and recycling efforts. The process of siting a landfill is one which must be rigorously evaluated against criteria such as low rainfall, availability of cover material, distance from potable water sources, distance from residential and resort developments, aesthetic impacts, proximity to refuse generation sources, adaptability to a resources recovery facility and construction operating costs. By its very nature, a landfill itself may not be compatible with uses normally established within the State Land Use Urban and Conservation Districts considering sensitivity to populated areas and to protecting resources.

"The desired use will not adversely affect surrounding properties. The nearest residences are over 1.2 to 1.5 miles away. Waikoloa Resort is approximately two miles away. While wind patterns could direct odors from the landfill to the Keawaiki residences, these should dissipate given its distance from the landfill. Further the applicant will be applying a daily soil coverage as a standard operational measure to control odor and vector problems.

"With regard to groundwater, the landfill will be constructed with a 24-inch thick, impermeable compacted soil membrane to prevent leachate migration into the groundwater table. A leachate collection and treatment system will also be installed to handle any leachate generated on-site.

Construction of the landfill must comply with the requirements of the Department of Health. The project is downgradient from the nearest potable water source.

"The project's visual impact will be minimized by excavating a 25-foot deep depression. Additionally, a condition of this approval would place a 30-foot height limit from the existing grades on the landfill as represented by the applicant. Landscaping will be utilized to the extent aesthetics will be considered. With the exception of the access corridor, which will be paved, fugitive dust generated from the landfill may be observed. The watering of the landfill cover from water trucks or an alternative water supply should assist in controlling dust.

"The presence of litter is a concern; however, a chainlink fence will be constructed around the landfill to contain litter. The landfill will be utilized by County refuse trailers, commercial haulers and limited public use. All vehicles hauling waste to and from the landfill must be enclosed or covered by law.

"An increase in certain species of birds, rodents, and insects can be anticipated with the opening of the landfill. Therefore, an eradication program required by the Department of Health will be established by the applicant to control the vermin population.

"The decomposition of solid wastes will produce carbon dioxide and methane gases. Gas control will be accomplished by collecting the gases in the leachate collection system and natural ventilation. The amount of methane gas concentration can be monitored at the manhole covers and periodically released as the concentrations exceed a level of four percent.

"No endangered species of flora or fauna will be impacted by the project.

"The proposed landfill will not unreasonably burden public agencies to provide roads and streets, sewers, water, drainage, and school improvements and police and fire protection. The applicant intends to construct a channelized intersection at Queen Kaahumanu Highway in order to maintain the safe movements of high speed traffic. These improvements will be required as a condition of this permit approval. No major natural drainage ways will be affected by the landfill and access road. Since a grading permit will be required, the excavation and any improvements must comply with Chapter 27 of the Hawaii County Code relating to Erosion and Sedimentation Control. The major concern appears to be over fires in this dry

region as a result of increased human activities attracted by the landfill. This is further complicated by the absence of an approved water system for fire protection purposes at the landfill. The applicant proposes to formulate and implement a fire plan for review and approval by the Department of Land and Natural Resources and the Fire Department. The fire plan would include, but not be limited to, operational procedures at the landfill and on the access road and the location and width of fire breaks. A water truck will be stationed on-site for mobile fire control. The submittal and approval of the fire plan to the Planning Department, in consultation with the Departments of Fire and Land and Natural Resources, will be made a condition of this permit.

"It should be noted that the Departments of Education, Water Supply and Parks and Recreation raised no objections to the request.

"Unusual conditions, trends, and needs have arisen since the district boundaries and regulations were established. As previously mentioned, lands in the Agricultural District included those not suitable for productivity but may have been surrounded by or contiguous to other agricultural lands. Since the adoption of the Land Use Law in 1961, the County of Hawaii has experienced rapid growth. This growth and interest in development has been directed by the County's General Plan and through various district boundary amendments to existing and new resort and support communities in North Kona and North and South Kohala. A landfill site is critical to the timely implementation of the reclassified urban boundaries and updated goals and policies of the General Plan.

"The land upon which the proposed use is sought is unsuited for the character of the land and the present use. The land is presently not being used by the State of Hawaii nor is the County aware of any plans to develop the area for agricultural purposes. It is unlikely that it would be placed in agricultural use in the future because of its dry climate and poor soil conditions.

"The proposed landfill and related improvements will alter and change the character of land from its present vacant use. Development will occur on an incremental basis over a period of 25 years. Upon reaching capacity, the landfill will be reverted back to its previously vacant use or other more appropriate use.

"The requested landfill and related improvements will not be contrary to the General Plan. Approval of the Special Permit will be consistent with a goal of the Public Facilities

Element which states "Encourage the provision of public facilities that effectively service community needs and seek ways of improving public service through better and more functional facilities which are in keeping with the environmental and aesthetic concerns of the community." As a condition of this permit approval, the imposition of landscaping will be imposed as practicable and in conformance with the following standard of the Health and Sanitation subsection: "Sanitary landfill sites for refuse disposal shall be established in accordance with the needs of communities and shall be landscaped." Finally, it is determined that the critical selection of the project area will further the goal for public lands to "Utilize publicly owned lands in the best interest and to the extent possible, to the maximum benefit for the greatest number of people" [emphasis added]. While there are no community development or design plans for the area, the Office of State Planning has prepared the West Hawaii Regional Plan and the County is in the preliminary stages of formulating its Northwest Hawaii Open Space and community development Plan for the area. The proposal does not conflict with the resort and support community nodes, and it is sensitive to the identified resources of the region, such as Kiholo Bay and the heritage area."

#### PLANNING COMMISSION RECOMMENDATION

61. At its meeting of November 21, 1991, the Planning Commission recommended approval of the Permit to the LUC subject to the following conditions:

- "1. The applicant, successors or assigns shall comply with all of the stated conditions of approval.
- "2. Final Plan Approval shall be secured from the Planning Department within one year from the effective date of this permit. To assure adequate time for plan approval review and in accordance with Chapter 25-244 (Zoning Code), plans shall be submitted a minimum of forty-five days prior to the date by which plan approval must be secured. Plans shall identify structures, landscaping, visual and aesthetic screening, paved access roadways and parking area and litter-control fencing.
- "3. Construction of the structures shall commence within one year from the date of receipt of Final Plan Approval and shall be completed within one year thereafter.



- "4. A grading permit for applicable portions of the first increment of the landfill shall be secured within one year from the date of receipt of final plan approval.
- "5. The landfill shall be established within one year from the issuance of a grading permit. A letter of notification shall be submitted to the Planning Department indicating that the landfill will begin operation and that applicable conditions have been complied with.
- "6. The maximum height of the landfill shall not exceed 30 feet above the existing grades.
- "7. Subsequent increments shall comply with all laws, rules, regulations and requirements.
- "8. Access to the property shall meet with the approval of the Department of Transportation-Highways Division. Further, intersection improvements to Queen Kaahumanu Highway, including a left-turn storage lane, acceleration and deceleration lanes, shall be constructed prior to establishing the landfill operation.
- "9. A fire plan shall be submitted to the Planning Department, in consultation with the Department of Land and Natural Resources-Division of Forestry and Wildlife and the Hawaii County Fire Department, for review and approval prior to issuance of a certificate of occupancy for any structure or establishment of the landfill, whichever occurs first. The fire plan shall include, but not be limited to, the construction, location, and width of a firebreak, operational procedures, and emergency response measures.
- "10. A botanical survey for the Ophioglossum (pololei fern) shall be conducted and a report submitted to the Planning Department for review and approval prior to issuance of a grading permit for the access road.
- "11. An archaeological data recovery and mitigation plan shall be submitted for review and approval by the Planning Department, in consultation with the Department of Land and Natural Resources, prior to issuance of a grading permit or any land alterations on the site. The applicant shall be responsible for implementing approved mitigation measures prior to and during construction.

- "12. Should any unidentified sites or remains such as artifacts, shell, bone, or charcoal deposits, human burials, rock or coral alignments, pavings, or walks be encountered, work in the immediate area shall cease and the Planning Department shall be immediately notified. Subsequent work shall proceed upon an archaeological clearance from the Planning Department when it finds that sufficient mitigative measures have been taken.
- "13. Prior to construction the applicant shall demonstrate to the satisfaction of the Planning Director that all imported topsoil and landfill cover material are being supplied from an approved quarry or resource site.
- "14. Comply with all other laws, rules, regulations and requirements, including those of the Department of Health.
- "15. An annual progress report shall be submitted to the Planning Director and the State Land Use Commission prior to the anniversary date of the approval of the permit. The report shall include, but not be limited to, the status of the development and to what extent the conditions of approval are being complied with. This condition shall remain in effect until all of the conditions of approval have been complied and the Planning Director acknowledges that further reports are not required.
- "16. An extension of time for the performance of conditions within the permit may be granted by the Planning Director upon the following circumstances: a) the non-performance is the result of conditions that could not have been foreseen or are beyond the control of the applicant, successors or assigns, and that are not the result of their fault or negligence; b) granting of the time extension would not be contrary to the general plan or zoning code; c) granting of the time extension would not be contrary to the original reasons for the granting of the permit; and d) the time extension granted shall be for a period not to exceed the period originally granted for performance (i.e., a condition to be performed within one year may be extended for up to one additional year). Further, should any of the conditions not be met or substantially complied with in a timely fashion, the Director shall initiate procedures to revoke the permit.

### CONCLUSIONS OF LAW

The Special Permit request to establish a sanitary landfill, access road, and related improvements constitutes an "unusual and reasonable" use as defined in Chapter 205-6, Hawaii Revised Statutes, and the proposed use, subject to the conditions in the Order, is not contrary to the objectives sought to be accomplished by the State Land Use Law to preserve, protect and encourage development of lands in the State for those uses to which they are best suited in the interest of the public health and welfare.

### ORDER

IT IS HEREBY ORDERED that Special Permit Docket No. SP91-379 to allow the establishment of a sanitary landfill, access road, and related improvements, on approximately 300 acres of land, designated within the State Land Use Agricultural District, Hawaii Tax Map Key No.: 7-1-03: portion of 1, and approximately identified on Exhibit "A" attached hereto and incorporated by reference herein, is hereby approved, subject to the following conditions:

1. The applicant, successors or assigns shall comply with all of the stated conditions of approval.
2. Final Plan Approval shall be secured from the Planning Department within one year from the effective date of this permit. To assure adequate time for plan approval review and in accordance with Chapter 25-244 (Zoning Code), plans shall be submitted a minimum of forty-five days prior to the

date by which plan approval must be secured. Plans shall identify structures, landscaping, visual and aesthetic screening, paved access roadways and parking area and litter-control fencing.

3. Construction of the structures shall commence within one year from the date of receipt of Final Plan Approval and shall be completed within one year thereafter.

4. A grading permit for applicable portions of the first increment of the landfill shall be secured within one year from the date of receipt of final plan approval.

5. The landfill shall be established within one year from the issuance of a grading permit. A letter of notification shall be submitted to the Planning Department indicating that the landfill will begin operation and that applicable conditions have been complied with.

6. The maximum height of the landfill shall not exceed 30 feet above the existing grades.

7. Subsequent increments shall comply with all laws, rules, regulations and requirements.

8. Access to the property shall meet with the approval of the Department of Transportation-Highways Division. Further, intersection improvements to Queen Kaahumanu Highway, including a left-turn storage lane, acceleration and deceleration lanes, shall be constructed prior to establishing the landfill operation.

*regeneration  
on October 4, 1973*

*Completed*

9. A fire plan shall be submitted to the Planning Department, in consultation with the Department of Land and Natural Resources-Division of Forestry and Wildlife and the Hawaii County Fire Department, for review and approval prior to issuance of a certificate of occupancy for any structure or establishment of the landfill, whichever occurs first. The fire plan shall include, but not be limited to, the construction, location, and width of a firebreak, operational procedures, and emergency response measures.

revised  
4/15/92

10. A botanical survey for the Ophioglossum (pololei fern) shall be conducted and a report submitted to the Planning Department for review and approval prior to issuance of a grading permit for the access road.

revised  
4/29/92

11. An archaeological data recovery and mitigation plan shall be submitted for review and approval by the Planning Department, in consultation with the Department of Land and Natural Resources, prior to issuance of a grading permit or any land alterations on the site. The applicant shall be responsible for implementing approved mitigation measures prior to and during construction.

revised  
4/29/92

12. Should any unidentified sites or remains such as artifacts, shell, bone, or charcoal deposits, human burials, rock or coral alignments, pavings, or walks be encountered, work in the immediate area shall cease and the Planning Department shall be immediately notified. Subsequent work

shall proceed upon an archaeological clearance from the Planning Department when it finds that sufficient mitigative measures have been taken.

13. Prior to construction the applicant shall demonstrate to the satisfaction of the Planning Director that all imported topsoil and landfill cover material are being supplied from an approved quarry or resource site.

14. Comply with all other laws, rules, regulations and requirements, including those of the Department of Health.

15. An annual progress report shall be submitted to the Planning Director and the State Land Use Commission prior to the anniversary date of the approval of the permit. The report shall include, but not be limited to, the status of the development and to what extent the conditions of approval are being complied with. This condition shall remain in effect until all of the conditions of approval have been complied and the Planning Director acknowledges that further reports are not required.


16. An extension of time for the performance of conditions within the permit may be granted by the Planning Director upon the following circumstances: a) the non-performance is the result of conditions that could not have been foreseen or are beyond the control of the applicant, successors or assigns, and that are not the result of their fault or negligence; b) granting of the time extension would not be contrary to the general plan or zoning code; c) granting


of the time extension would not be contrary to the original reasons for the granting of the permit; and d) the time extension granted shall be for a period not to exceed the period originally granted for performance (i.e., a condition to be performed within one year may be extended for up to one additional year). Further, should any of the conditions not be met or substantially complied with in a timely fashion, the Director shall initiate procedures to revoke the permit.


17. The applicant shall submit a metes and bounds map and description of the Permit area to the County of Hawaii Planning Department and the Commission.

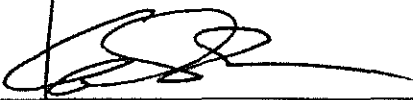
Done at Honolulu, Hawaii, this 18th day of February 1992,  
per motions on January 9, 1992 and February 13, 1992.

LAND USE COMMISSION  
STATE OF HAWAII

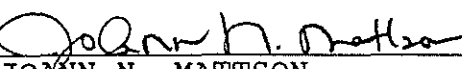
By   
RENTON L. K. NIP  
Chairman and Commissioner


By   
ALLEN K. HOE  
Vice Chairman and Commissioner

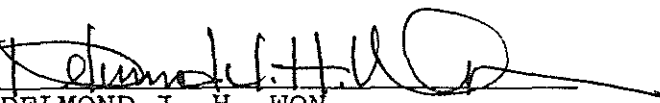
By   
ALLEN Y. KAJIOKA  
Vice Chairman and Commissioner

By   
KAREN S. AHN  
Commissioner

By (absent)  
EUSEBIO LAPENIA, JR.  
Commissioner

By   
JOANN N. MATTSON  
Commissioner

By   
ELTON WADA  
Commissioner

By   
DELMOND J. H. WON  
Commissioner

Filed and effective on  
February 18, 1992

Certified by:

  
Executive Officer



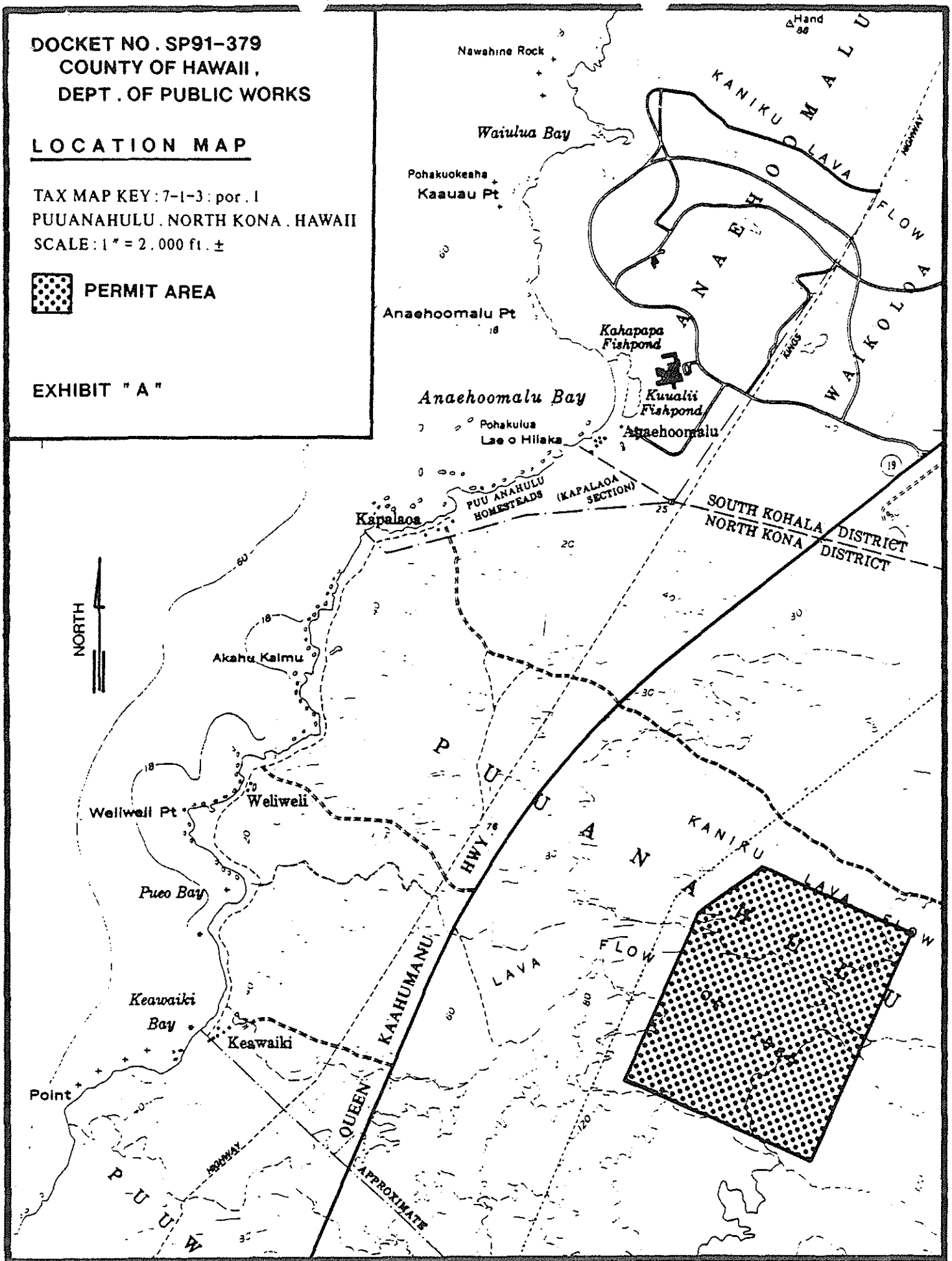
DOCKET NO. SP91-379  
COUNTY OF HAWAII,  
DEPT. OF PUBLIC WORKS

LOCATION MAP

TAX MAP KEY: 7-1-3: por. 1  
PUUANAHULU, NORTH KONA, HAWAII  
SCALE: 1" = 2,000 ft. ±

 PERMIT AREA

EXHIBIT "A"



BEFORE THE LAND USE COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Petition of )	DOCKET NO. SP91-379
COUNTY OF HAWAII, DEPARTMENT OF )	COUNTY OF HAWAII,
PUBLIC WORKS )	DEPARTMENT OF PUBLIC WORKS
For a Special Permit to Establish )	
a Sanitary Landfill, Access Road, )	
and Related Improvements on )	
Approximately 300 Acres of Land )	
Situated Within the State Land )	
Use Agricultural District at )	
Pu'uanahulu, North Kona, Hawaii, )	
Tax Map Key No.: 7-1-03: portion )	
of 1 )	

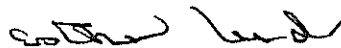
CERTIFICATE OF SERVICE

I hereby certify that a copy of the Findings of Fact, Conclusions of Law, and 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:

CERT. NORMAN K. HAYASHI, Planning Director  
Planning Department, County of Hawaii  
25 Aupuni Street  
Hilo, Hawaii 96720

CERT. BRUCE McCLURE, Chief Engineer  
Department of Public Works  
County of Hawaii  
25 Aupuni Street  
Hilo, Hawaii 96720

DATED: Honolulu, Hawaii, this 18th day of February 1992.



ESTHER UEDA  
Executive Officer