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PARKER RANCH, INC.

LAND USE COMMISSION
STATE OF HAWAII
2011 JUN 30 A 8:37

BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Petition of)	DOCKET NO. DR11-45
)	
PARKER RANCH, INC.)	PETITION FOR DECLARATORY
)	ORDER TO DESIGNATE
For Declaratory Order to Designate)	IMPORTANT AGRICULTURAL
Important Agricultural Lands)	LANDS; VERIFICATION; EXHIBITS
for approximately 56,771.8 acres at Hamakua)	"A" – "D"
and South Kohala, Hawai`i, Hawai`i, TMK:)	
4-4-014: 005 portion, 4-4-015: 003 portion,)	
and 6-7-001: 025 portion.)	
_____)	

PETITION FOR DECLARATORY ORDER
TO DESIGNATE IMPORTANT AGRICULTURAL LANDS

Comes now, Petitioner PARKER RANCH, INC. ("Petitioner"), by and through its attorneys, MATSUBARA – KOTAKE, and respectfully petitions the Land Use Commission of the State of Hawai`i ("Commission") to issue a declaratory order designating approximately 56,771.8 acres of land at Hamakua and South Kohala,

Hawai'i, Hawai'i ("Property"), more particularly described below, as Important Agricultural Lands ("IAL") pursuant to §§ 205-44 and 45 of the Hawai'i Revised Statutes ("HRS") and §§ 15-15-98 and 99 of the Hawai'i Administrative Rules ("HAR").

In support of this Petition, Petitioner alleges and avers as follows:

I. Petition Content Requirements.

Contents requirement for Petition for Declaration Order pursuant to HAR § 15-15-99:

A. Name, address and telephone number of Petitioner. Petitioner PARKER RANCH, INC. is a Hawai'i corporation, whose address is 66-1304 Mamalahoa Highway, Kamuela, Hawaii, 96743, and telephone number is (808) 885-7311. Benjamin M. Matsubara, Curtis T. Tabata, Wyeth M. Matsubara and the law firm of Matsubara - Kotake have been appointed to represent the Petitioner pursuant to HAR Section 15-15-35(b). All correspondence and communications in regard to this Petition shall be addressed to, and served upon, Benjamin M. Matsubara, Matsubara - Kotake, 888 Mililani Street, 8th Floor, Honolulu, Hawai'i 96813.

B. Signature of each petitioner. This petition is signed below by Petitioner's attorney who is authorized to sign and file this petition on Petitioner's behalf.

C. Designation of specific question. Whether the lands identified by Petitioner in this Petition should be designated as IAL pursuant to HRS §§ 205-44 and 45.

D. Statement of Petitioner's interest in the subject matter and reason for the submission. Petitioner is a trust beneficiary with management powers over those lands hereby being proposed as IAL and located on the island of Hawai'i, Hawai'i, and referred to herein as the Property and more specifically identified and described on Exhibit "B" attached hereto. Petitioner requests the Commission designate the Property as IAL pursuant to HRS §§ 205-44 and 45.

E. Statement of Petitioner's position or contention. It is Petitioner's position that the Property meets the qualifications for designation as IAL under HRS § 205-44, and that the Commission should issue a declaratory order designating the Property as IAL pursuant to HRS § 205-45.

F. Memorandum of authorities, containing a full discussion of reasons and legal authorities in support of Petitioner's position. HRS § 205-45(c) provides that the petition for declaratory order designating IAL shall be submitted in accordance with subchapter 14 of the Commission's rules and the requirements contained in HRS § 205-45(c). The petition for declaratory order content requirements under subchapter 14 are found at HAR § 15-15-99 and are discussed in Sections A-F herein. The requirements of HRS § 205-45(c) include the following:

1. Tax Map Key Numbers and verification and authorization from the applicable landowners. Petitioner seeks to designate as IAL approximately 56,771.8 acres of land on the island of Hawai'i, Hawai'i. Attached hereto and incorporated

herein by reference as Exhibit "B" is a report identifying the location, Tax Map Key Numbers and acreage of the Property. Ownership of the fee simple interest in the Property is held by the Parker Land Trust. Attached hereto and incorporated herein by reference as Exhibit "C" is the written authorization of the land owner to file and prosecute this Petition. Attached hereto and incorporated herein by reference as Exhibit "D" are the title reports verifying ownership of the Property.

2. Proof of qualification for designation as IAL under HRS § 205-44.

HRS § 205-44(c) provides the standards and criteria to identify IAL. HRS § 205-44(a) provides that lands identified as IAL need not meet every standard and criteria listed in HRS § 205-44(c); rather, lands meeting any of the criteria in HRS § 205-44(c) shall be given initial consideration, provided that the designation of IAL shall be made by weighing the standards and criteria with each other to meet the constitutionally mandated purposes in article XI, section 3, of the Hawai'i Constitution and the objectives and policies for IAL in section 205-42 and 205-43.

Attached hereto and incorporated by reference herein as Exhibit "A" is the Agricultural Lands Assessment for Parker Ranch, Inc. which describes and illustrates the characteristics of the Property.

The standards and criteria for identifying IAL pursuant to HRS § 205-44(c) are as follows:

a. Land currently used for agricultural production. Parker Ranch is the fifth largest cow and calf operation in the United States. It owns approximately 26,000 head of cattle, 12,500 are pastured on the Ranch at any given time, made up of Angus and Charolais breeds. The rest of the animals are on pasture or in feedlots on the mainland. Annual beef production of Parker Ranch's cow-calf operation is approximately 7.5 million pounds. When the calves are weaned at 5 to 6 months they weigh about 400 pounds. These Spring and Fall weaned calves are sent both by air and sea to the mainland.

Parker Ranch provides approximately 1,200 head each year to the local slaughter house to be sold as hamburger. Recently, there has been a demand for grass fed beef and Parker Ranch provides approximately 200 head to the local slaughter house to participate in that program for the local market. Parker Ranch continues to explore marketing and distribution of its branded beef to the local market, and supports initiatives for local processing plants and packers throughout the state as the concept of sustainability grows in the general population.

The entire 56,771.8 acres of proposed IAL is in active cattle ranching. See Exhibit "A" and Figure 1 of Exhibit "A", Existing Cattle Grazing and Forestry Leased Area.

b. Land with soil qualities and growing conditions that support agricultural production of food, fiber, or fuel- and energy-producing crops. The University of Hawai'i, Land Study Bureau ("LSB") developed the Overall Productivity

Rating, which classified soils according to five (5) levels, with "A" representing the class of highest productivity soils and "E" representing the lowest. These letters are followed by numbers which further classify the soil types by conveying such information as texture, drainage and stoniness. Based on this, approximately 1% of the Property is rated "B", 32.6% is rated "C", 64.2 is rated "D", and 2.2% is rated "E". See Exhibit "A" and Figures 2 of Exhibit "A", Land Study Bureau - Detailed Land Classification.

Based on the Sunshine Maps prepared in 1985 by the State Department of Planning and Economic Development, Energy Division, now known as the Department of Business, Economic Development and Tourism, approximately 26% of the proposed IAL receive an annual average of 450 calories of solar energy per square centimeter per day, 70% receive 400 calories, and the balance receives 350 calories. See Exhibit "A" and Figure 3 of Exhibit "A", Solar Radiation.

c. Lands identified under agricultural productivity ratings systems, such as the agricultural lands of importance to the State of Hawai'i (ALISH) system adopted by the board of agriculture on January 28, 1977. In 1977, the State Department of Agriculture developed a classification system to identify Agricultural Lands of Importance to the State of Hawai'i ("ALISH"). The classification system is based primarily, though not exclusively, upon the soil characteristics of the lands. The three (3) classes of ALISH lands are: "Prime", "Unique", and "Other", with all remaining lands termed "Unclassified". When utilized with modern farming methods,

“Prime” agricultural lands have a soil quality, growing season, and moisture supply necessary to produce sustained crop yields economically. “Unique” agricultural lands possess a combination of soil quality, growing season, and moisture supply to produce sustained high yields of a specific crop. “Other” agricultural lands include those that have not been rated as “Prime” or “Unique”. The ALISH system classifies approximately 2.4% of the Property as “Prime”, 68.2% of the Property as “Other”, and the balance is “Unclassified”. See Exhibit “A” and Figure 4 of Exhibit “A”, ALISH Map.

d. Land types associated with traditional native Hawaiian agricultural uses, such as taro cultivation, or unique agricultural crops and uses, such as coffee, vineyards, aquaculture, and energy production. The history of Parker Ranch is the story of how ranching has been successfully married to its lands for over 140 years. Parker Ranch's special place in the agricultural industry in Hawai`i constitutes a unique agricultural use in Hawai`i, and where it is impossible to separate Parker Ranch from its lands, the Petitioner believes that the Property is both unique and important as agricultural lands. Parker Ranch is one of the oldest and largest ranches in the United States. With its land mass and ranching expertise, Parker Ranch is especially positioned to participate in the practice of grass finishing cattle in Hawai`i to provide a healthy and nourishing food source to the people of Hawai`i, while promoting the local economy and addressing the State's food security. Whether the future markets and economy will encourage or necessitate the practice of grass finishing cattle in Hawai`i is uncertain, but

the value in preserving and supporting, through IAL incentives, a critically important institution like Parker Ranch to insure the State's food producing capability is immeasurable. Parker Ranch and its lands are unique. See Exhibit "A".

e. Lands with sufficient quantities of water to support viable agricultural production. The available agricultural water capacity for the Ranch is 440,000 gallons per day which is sufficient for current and near term ranching needs. See Exhibit "A" and Figure 5 of Exhibit "A", Ranching Infrastructure and Water System.

f. Land whose designation as Important Agricultural Lands is consistent with general, development, and community plans of the County. The Property's agricultural classification is consistent with the General Plan of the County of Hawai'i. Additionally, the Property is situated within the State Agricultural District. See Exhibit "A" and Figures 6 of Exhibit "A", State Land Use District Boundary Map.

g. Land that contributes to maintaining a critical land mass important to agricultural operating productivity. Petitioner seeks to designate approximately 56,771.8 acres of contiguous land as IAL on the island of Hawai'i which contributes to maintaining a critical land mass important to agricultural operating productivity.

h. Land with or near support infrastructure conducive to agricultural productivity, such as transportation to markets, water, or power. Existing

infrastructure servicing the Property include water tanks, water lines, fences, grazing management areas, and roadways. See Exhibit "A" and Figures 1 and 5.

3. The current or planned agricultural use of the area sought to be designated as IAL. The current and future agricultural use for the Property is ranching. See Exhibit "A".

II. Waiver of 85/15 Reclassification Incentive

Petitioner is not seeking a reclassification of land pursuant to HRS 205-45(b) in conjunction with this Petition to designate IAL. Furthermore, Petitioner hereby voluntarily waives any and all rights to assert, claim or exercise any credits pursuant to HRS § 205-45(h), as effective as of the date of this petition, that may be earned by Petitioner in the event of and as a result of this Petition being granted. This waiver is limited to the use of credits for the sole purpose of reclassifying other lands that are not the subject of this Petition to the Urban, Rural or Conservation Districts pursuant to HRS § 205-45(h), as effective as of the date of this petition, and shall not apply to any other credits, incentives, rights or privileges that Petitioner may possess now or in the future, whether known or unknown, which are hereby expressly reserved.

Based on the foregoing, Petitioner respectfully requests that the Commission find that the Petition meets the standards for designating Important Agricultural

Lands pursuant to HRS §§ 205-44 and 45, and designates the Property as Important Agricultural Lands.

DATED: Honolulu, Hawai'i, June 30, 2011.



Of Counsel:
MATSUBARA - KOTAKE
A Law Corporation


BENJAMIN M. MATSUBARA
CURTIS T. TABATA
WYETH M. MATSUBARA
Attorneys for Petitioner
PARKER RANCH, INC.

VERIFICATION

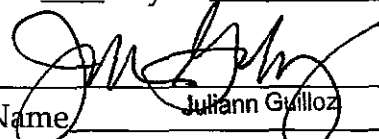
NEIL KUYPER, being first duly sworn, on oath, deposes and says that he is the President and Chief Executive Officer of Parker Ranch, Inc., a Hawai'i corporation, and as such is authorized to make this verification on behalf of said company; that he/she has read the foregoing Petition and knows the contents thereof; and that the same are true to the best of his/her knowledge, information and belief.

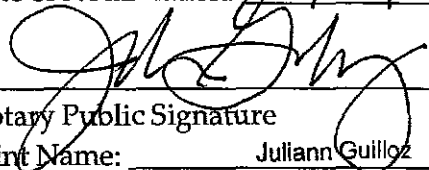
Dated: Kamuela, Hawai'i, June 27, 2011.




NEIL KUYPER
Parker Ranch, Inc.
Its President and Chief Executive Officer

Subscribed and sworn to me
this 27th day of June 2011


Name Juliann Guilloz
Notary Public, State of Hawai'i
My commission expires: 9/2/2011

STATE OF HAWAII NOTARY CERTIFICATION	
Doc. Description: Verification	
Date of Document: <u>6/27/11</u>	# Pages: <u>1</u>
Date of Notarization: <u>6/27/11</u>	
 Notary Public Signature	
Print Name: <u>Juliann Guilloz</u>	
Notary Public, State of Hawai'i, <u>3rd</u> Circuit	
Notary Commission No. <u>07.447</u>	

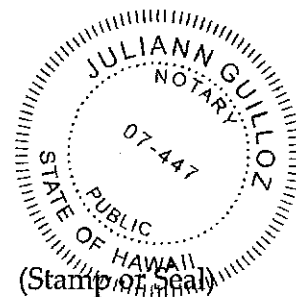


EXHIBIT A

Agricultural Land Assessment
for
Parker Ranch, Inc.
Proposed Important Agricultural Land

South Kohala and Hamakua District, Island of Hawai'i

June 2011

Prepared for: Parker Ranch, Inc.
66-1304 Mamalahoa Highway
Kamuela, Hawai'i 96743

Prepared by: PBR Hawaii & Associates, Inc.
1001 Bishop Street, Suite 650
Honolulu, Hawai'i 96813

A-1

EXHIBIT "A"

then, Parker Ranch has utilized its lands in the sections now called Waikii, Makahalau Paahau and Holoholoku for cattle ranching for approximately 164 years.

Over the lifetime of six generations of Parkers to the present, the ranch grew from 642 acres acquired by Parker and Kipikane to approximately 500,000 acres by 1943, and now encompasses approximately 106,000 acres. Today, Parker Ranch is the fifth largest cow-calf operation and one of the oldest ranches in the country. From the 5,000 head of primarily wild cattle tended by John Palmer Parker II from 1872-1891 who owned 47,000 acres to the approximately 26,000 head of Angus and Charolais breed presently owned by Parker Ranch, the Ranch was developed through diligent stewardship and meticulous planning.

In January 1900, Alfred Wellington (A.W.) Carter began his 50-year management of the Ranch as the appointed trustee-manager of Thelma Parker's 50% interest in the Ranch which she inherited when John Palmer Parker III passed away in 1894. At the time, there were 25,000 head grazing on over 300,000 acres of land with much of it unproductive and only 20,000 acres under fence.

When Carter assumed management of the Ranch, he studied every possibility of production that the lands offered in order to ascertain which varieties of foreign grasses would best augment the Island supply in producing a sufficient quantity of desirable grades of forage, be hardy enough to withstand drought conditions, and help stop soil erosion. He continuously worked to improve the pasturage by using different varieties of grasses and clover to accommodate the different altitude and weather conditions throughout the ranch. Among the better grasses imported were brome, rye, blue grass, orchard grass, and various clover. Guinea and Molasses grass were imported in large quantities. Kikuyu was recommended and imported from New Zealand. These imported grasses were being planted every year and allowed a buildup of reserve in forage lands into which large herds of cattle could be shifted when other areas of the Ranch were plagued with drought. The improvement of forage supported the Ranch's goal to expand and improve its herds.

In 1902, Carter began the improvement of the water system by ordering and installing the first set of pipe from Kohala to Waikii. Instead of receiving the anticipated 7,000 gallons in a 24 hour period, it received 15,840 gallons. Then year after year more pipe, water holding tanks and troughs were added. Carter considered the water system an integral part of the land.

In 1906, Carter, reported that there were estimated to be 32,000 head on the ranch. Many which were wild. During the first few years of management Carter weeded out many of the poorer cattle and separated the balance into newly fenced paddocks, using the range bulls selected for their better conformation and promise. He quickly recognized the necessity of using purebreds. In the early days of the 1900's cattle were 5 to 6 years old when marketed and only dressed out at 500 pounds or less. Carter's years of selected breeding changed these figures to marketing of 2 and 3 year old steers yielding 60% of their live weight or about 650 pounds per head. In addition, the cattle from the Ranch were grass finished on grass of better quality than found in the mainland United States.

In 1939 there were 2,500 horses on the Ranch and the Ranch was then well known for breeding range stock, very fine work horses with intelligence, endurance and speed. The horses were developed by Carter by bringing Thoroughbred stallions from the mainland to be used to breed to select mares. The U.S. Army Calvary was very interested and purchased many Ranch horses mounts for officer charges and polo.

By July 1938, lands owned in fee were up to 201,344 acres, Government leased was 105,000 and leased from others were 20,313. Carter felt it was important to hold lands in fee. Leased lands always held the possibility of someone else getting the lease and then the Ranch would have to dispose of thousands of cattle from that area for whatever could be gotten for them. Slowly and whenever the opportunity presented itself and if the financing was available Carter would purchase land.

In the years that ensued, the ranch continued to grow and at one point passed the half-million acre mark, more than half the size of Rhode Island. Its purebred herds supplied many other ranches with breeding stock. An Oahu feedlot was opened and expanded and many immigrants went to work for Parker Ranch.

The Parker Ranch of today continues to be intertwined with the Waimea community by supporting agriculture, by providing a venue to continue the paniolo heritage and culture through events and rodeos on Parker Ranch lands and by contributing to the economic vitality of the community, including the Parker Ranch Foundation Trust which has supported its beneficiaries. As named by the last owner of Parker Ranch, Richard Smart, the beneficiaries of the Parker Ranch Foundation Trust are the Parker Ranch School Trust Corporation, Hawaii Preparatory Academy, North Hawaii Community Hospital, and the Richard Smart Fund of the Hawaii Community Foundation.

Proposed Important Agricultural Land Assessment

The proposed Parker Ranch IAL includes approximately 56,770 acres considered the core of the ranching operations. The following sections and referenced figures provide a detailed qualitative and quantitative assessment of the lands relative to the standards and criteria of § 205-44(c) including:

- Historic and Current Agricultural Use / Production
- Soil Qualities and Growing Conditions
- Agricultural Lands of Importance to the State of Hawaii
- Ranching Infrastructure and Water System
- State Land Use and Hawaii County General Plan

Historic and Current Agricultural Use / Production

Parker Ranch was founded in 1847 and is one of the oldest ranches in the United States. All of the proposed IAL lands have been utilized for cattle ranching in Parker Ranch's over 160 years of history.

Parker Ranch is the fifth largest cow and calf operation in the United States. It owns approximately 26,000 head of cattle, 12,500 are pastured on the Ranch at any given time, made up of Angus and Charolais breeds. The rest of the animals are on pasture or in feedlots on the mainland. Of this number, many are breeding cows and heifers. The breeding bulls total approximately 300 head.

Approximately 12,000 to 13,000 breeding cows are serviced by raised bulls. All calves from these cows are exported for beef production unless a female is selected for replacement to the commercial herd.

Annual beef production of Parker Ranch's cow-calf operation is approximately 7.5 million pounds. When the calves are weaned at 5 to 6 months; they weigh about 400 pounds. These Spring and Fall weaned calves sent both by air and sea to the mainland U.S. (Kansas, Texas, California, and Oregon).

Approximately 9,000 head are shipped each year. The calves are then turned out to grass pasture until reaching about 600 to 800 pounds (5 to 10 months). The animals are then sent to feedlots to reach a finished weight between 1,100 and 1,300 pounds (another 3 to 6 months, depending on their weight when they enter the feedlot). Over 90% of these finished cattle are sold through 2 marketing co-ops, Country Natural Beef and Rancher's Renaissance. The Ranch is a member of both. This allows the Ranch to sell its product, beef, directly to the retailer through the coops' branded beef programs, Rancher's Reserve Beef at selected supermarkets or as natural beef through health food stores.

Parker Ranch provides approximately 1,200 head each year to the local slaughter house to be sold as hamburger. Recently, there has been a demand for grass fed beef and Parker Ranch provides approximately 200 head to the local slaughter house to participate in that program for the local market. Parker Ranch continues to explore marketing and distribution of its branded beef to the local market, and supports initiatives for local processing plants and packers throughout the state as the concept of sustainability grows in the general population.

With the price of oil continuing to rise along with the cost of transportation and the cost of feed, finishing cattle on the mainland becomes less conducive and the prospects for a profitable marketing of beef for consumption in Hawaii rises. The availability of land and grass to finish the cattle becomes important in this scenario. It also plays a key role in providing food security for Hawaii. On an international level, some countries have opted to cease exporting in order to control hunger and stabilize political unrest.

The herd size reduction in recent years will allow for better stewardship of the land in the future. Studies have shown that an increase in forage provides for healthier and stronger mother cows, which relates to an increase in the percentage of conception rates, and an increase in weaning weights of the calf crop and ultimately an increase in the bottom line while being a better steward of the land. Not only does the Ranch want this "asset" to generate income, the ultimate goal is to have the land continue functioning for an additional 100 years as a productive vital piece of the Hawaii Island agricultural industry. The protection of core ranch lands located on the slopes of Mauna Kea is of vital

importance to the viability of Parker Ranch's livestock operation. If these fee simple lands remain in agriculture for perpetuity, it ensures that livestock production will continue on for many generations to come.

Based on a 2010 grazing management units map, almost all of the proposed IAL lands are still currently utilized for cattle grazing and related activities. The grazing management units and their names are shown on the Figure 1: Existing Cattle Grazing Units and Forestry Leased Area. Also shown in Figure 1, about 5,594 acres lands on the northern end of the proposed IAL area are currently leased to Cambium Pinnacle Inc. for a Eucalyptus plantation which is for future timber production. Approximately 60% of the forestry leased lands are included within three Parker Ranch's grazing management units. Eucalyptus forestry and cattle ranching coexist at this area with plans to expand the grazing areas within the forested areas.

Soil Qualities and Growing Conditions

The Detailed Land Classification System and Agricultural Land Productivity Ratings by the Land Study Bureau (LSB), University of Hawaii are based on a five-class productivity rating system using the letters A, B, C, D, and E, with A representing the class of highest productivity and E the lowest. The LSB's study was done in 1968.

For island of Hawai'i, the LSB report provided a rating for each soil type under the assumption of no filed irrigation. For some of the soil types, the LSB report also provided the second ratings with the assumption that the lands are irrigated. The rating with irrigation is higher than the one without irrigation.

Figure 2: Agricultural Soils Productivity Ratings illustrates the agricultural soil classifications for the various soil types on the proposed IAL lands. The GIS layer is prepared by the State and is based on the LSB report. The subject lands were not irrigated in the late 1960s when the LSB report was prepared. The soil ratings in the report are based on the assumption of no irrigation.

As illustrated in Figure 2, about 98% of the proposed IAL lands are rated B, C and D. The proposed IAL lands are rated as follow:

- B Rated: 1.0%
- C Rated: 32.6%
- D Rated: 64.2%
- E Rated: 2.2%

Although the soil productivity ratings are relatively low under this classification system, Parker Ranch has managed these pastures for over 160 years to support a cattle ranching operation.

Figure 3: Solar Radiation is created based on the Sunshine Maps prepared in 1985 by the State Department of Business, Economic Development and Tourism, formerly known as the State Department of Planning and Economic Development, Energy Division. It

illustrates that about 26% of the proposed IAL lands receive an annual average of 450 calories of solar energy per square centimeter per day. Over 70 % of the proposed IAL lands receive an annual average of 400 calories of solar energy per square centimeter per day. The balance of the lands receives an annual average 350 calories of solar energy per square centimeter per day.

These levels of solar radiation when combined with adequate rainfall and suitable soil types, support vigorous forage growth within the proposed IAL area.

Agricultural Lands of Importance to the State of Hawaii (ALISH)

The Agricultural Lands of Importance to the State of Hawaii (ALISH) classification system was developed in 1977 by the State Department of Agriculture. The system was based primarily, but not exclusively, on the soil characteristics of lands and existing cultivation. There are four classes of ALISH lands – Prime, Unique, Other and Unclassified. As illustrated in Figure 4: Agricultural Lands of Importance to the State of Hawai‘i, approximately 70.6% of the proposed IAL lands are classified as Prime and Other ALISH: 2.4% Prime ALISH and 68.2% Other ALISH. The balance of the lands are classified Unclassified under ALISH classification.

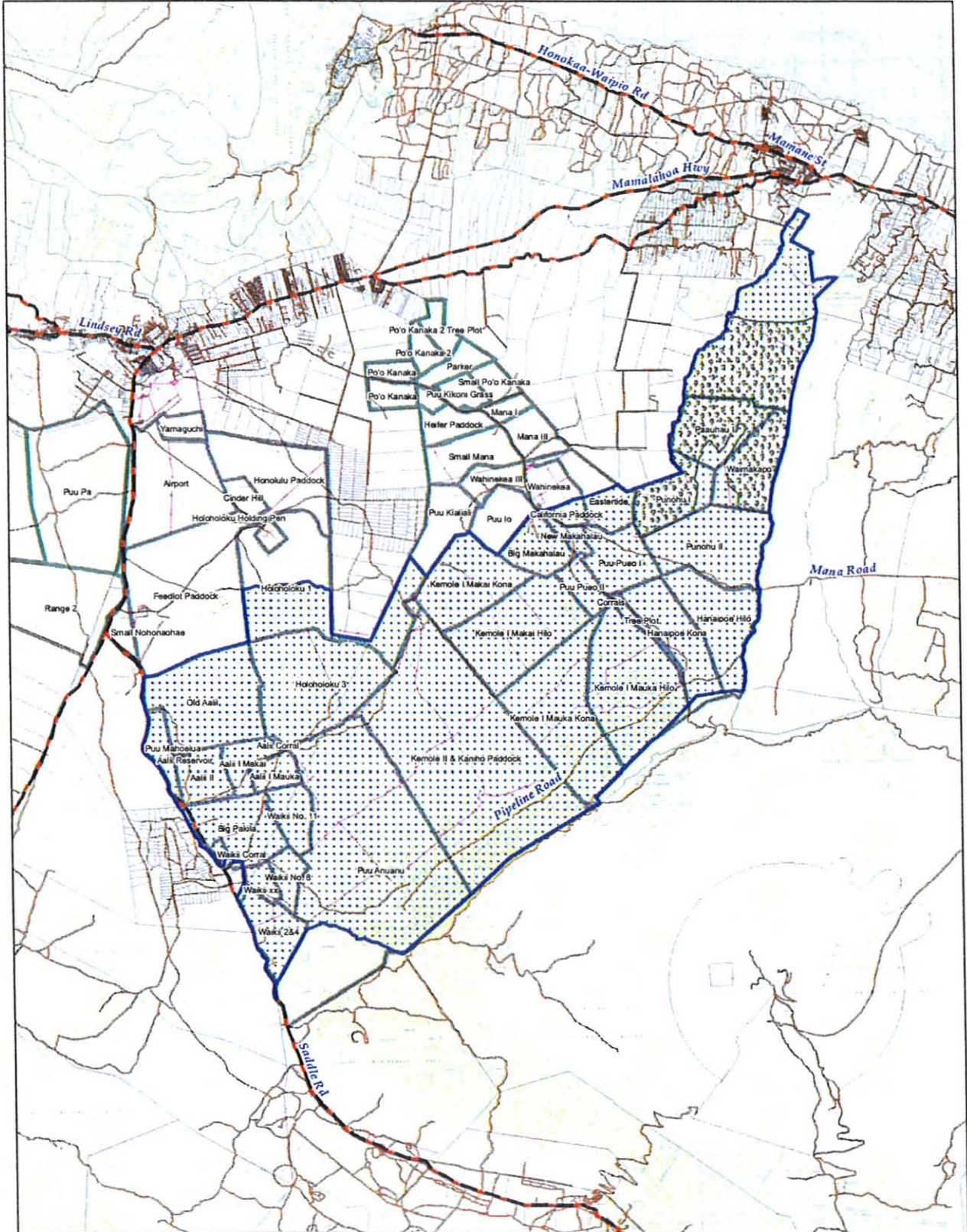
Ranching Infrastructure and Water System

Figure 5: Ranching Infrastructure and Water System Map shows that the proposed IAL lands are served by existing private irrigation water lines and tanks utilized to provide water to the cattle. The available agricultural water capacity for the Ranch is 440,000 gallons per day which is sufficient for current and near term ranching needs. The proposed IAL lands also receive an average of 15 to 100 inches of rain annually that is sufficient to support the cattle grazing. When insufficient rainfall does not support the grazing, the cattle are rotated to the higher rainfall pastures. Therefore, the proposed IAL lands have sufficient quantities of water to support viable ranching operations on a managed basis.

State Land Use and Hawai‘i County General Plan

Utilizing the official State Land Use District Boundary Maps, the proposed IAL lands are illustrated in Figure 6: State Land Use District Boundary Map to confirm that all the proposed IAL lands are within the Agricultural District.

The General Plan of the County of Hawai‘i is the policy document to guide the long-range development of the Island of Hawai‘i. The plan provides a land use map, referred to as the Land Use Pattern Allocation Guide (LUPAG) map, to illustrate the desired land uses. As illustrated in Figure 7: Hawai‘i County General Plan, current LUPAG map designations for the proposed IAL lands are entirely designated for agricultural uses: Important Ag. Lands (33.8%) and Extensive Agriculture (66.2%).



Legend

-  Proposed Important Ag. Lands
-  Existing Forestry Leased Area
-  Parker Ranch Grazing Management Units
-  Ranch Fences
-  Minor/4WD Roads
-  Island of Hawaii TMK 2010

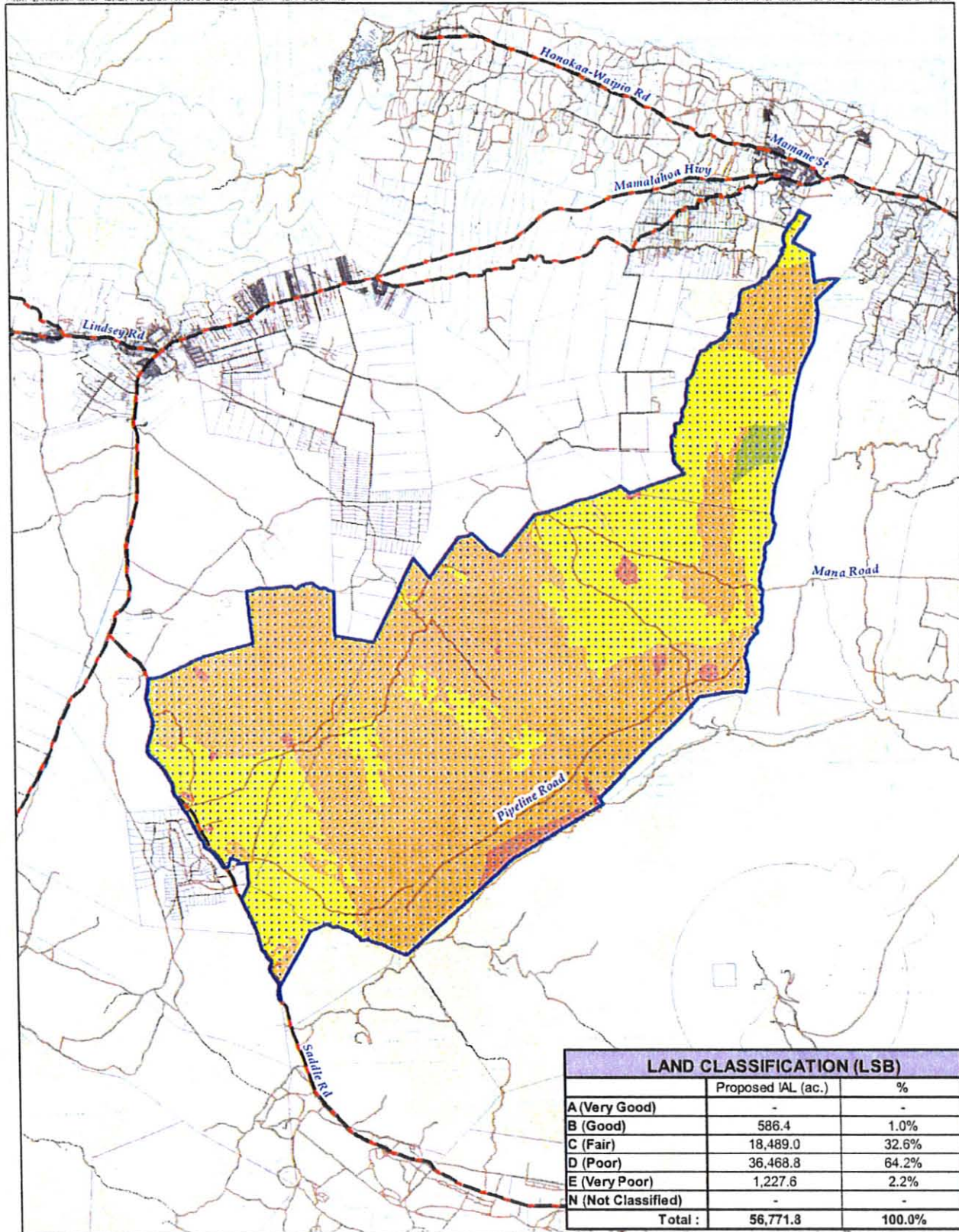
FIGURE 1:
Existing Grazing Management Units & Forestry Leased Area

Parker Ranch IAL 

PARKER RANCH, INC. ISLAND OF HAWAII



Source: Parker Ranch, Inc. GIS data (2006) and NSDA-NRCS survey data (2010)
 Disclaimer: This graphic has been prepared for general planning purposes only.



Legend

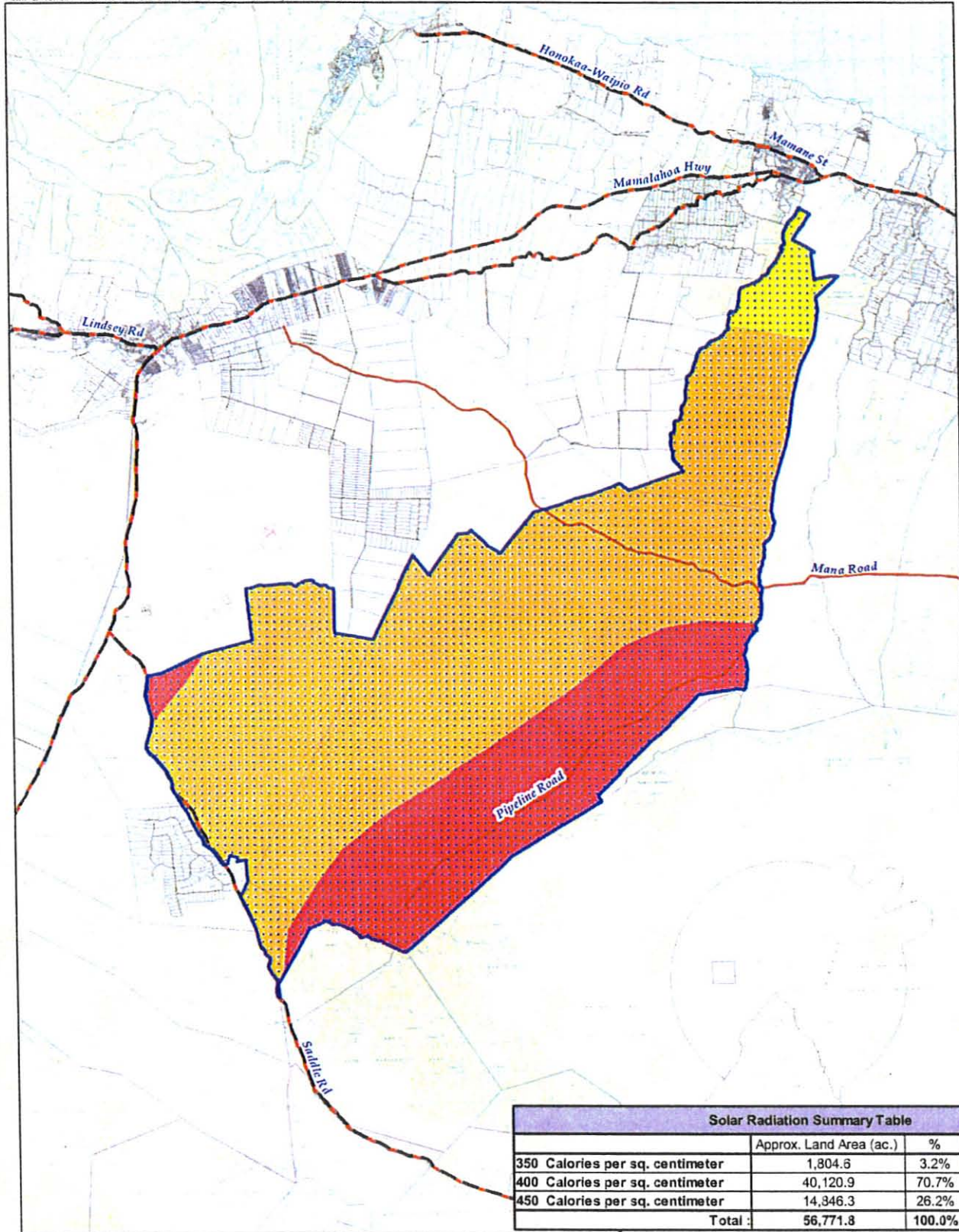
- Proposed Important Ag. Lands
- Minor/4WD Roads
- B (Good)
- C (Fair)
- D (Poor)
- E (Very Poor)

FIGURE 2:
Land Study Bureau -
Detailed Land Classification
Parker Ranch IAL Parker Ranch





PARKER RANCH, INC ISLAND OF HAWAII

NORTH LINEAR SCALE (FEET)
 0 5,000 10,000 20,000


Source: Land Study Bureau, 1967 (GIS)
 Disclaimer: This graphic has been prepared for general planning purposes only.



Legend

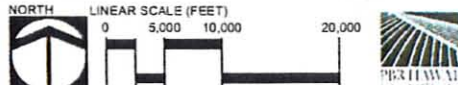
-  Proposed Important Ag. Lands
- Solar Radiation**
-  350 Calories per sq. centimeter
-  400 Calories per sq. centimeter
-  450 Calories per sq. centimeter

**FIGURE 3 :
Solar Radiation**

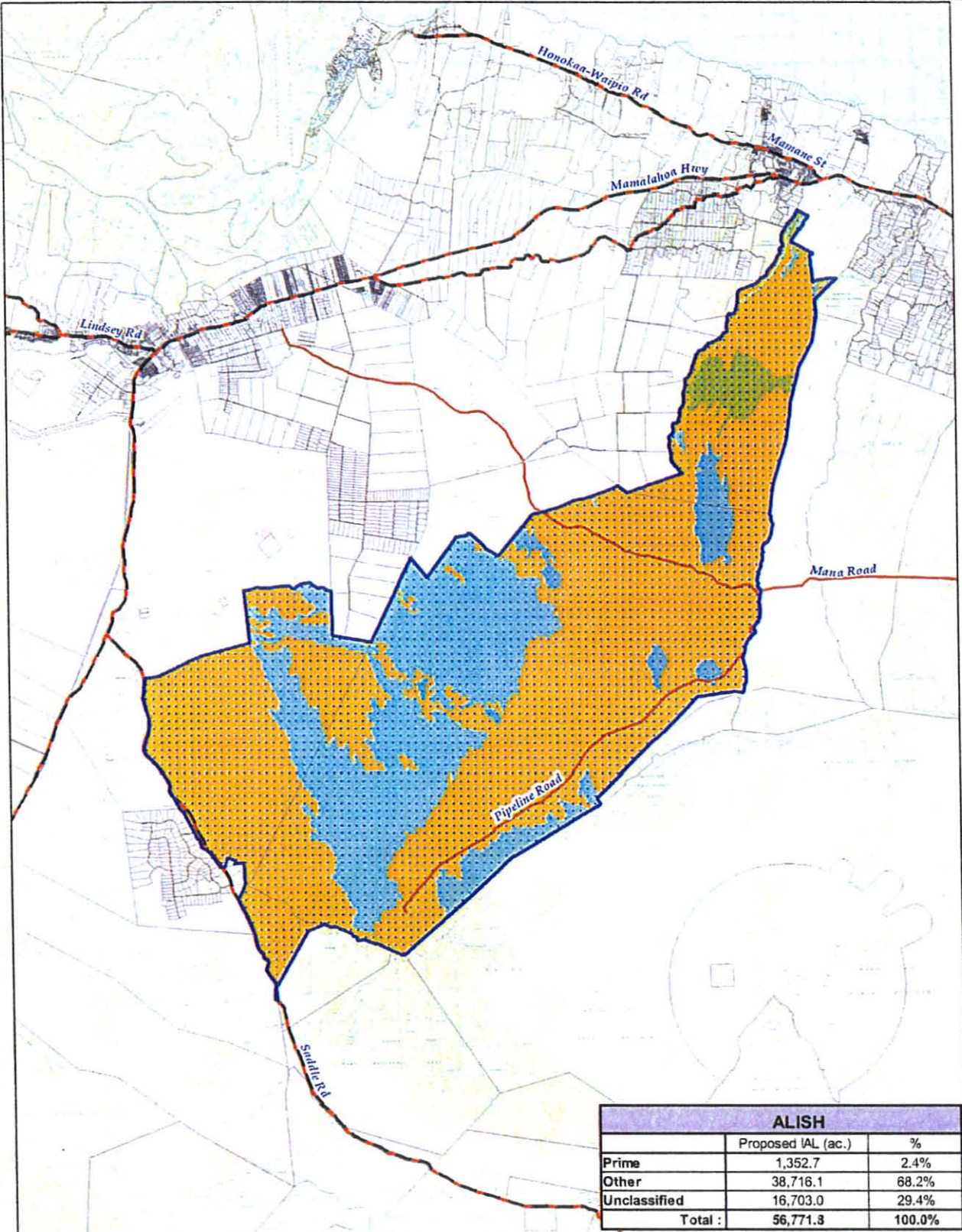
Parker Ranch IAL  **Parker Ranch**

PARKER RANCH, INC. ISLAND OF HAWAII

NORTH LINEAR SCALE (FEET)
0 5,000 10,000 20,000



Source: Solar Radiation Intensity (GSI), based on State Department of Planning and Economic Development, Energy Division, Sunshine Maps, 1985.
Disclaimer: This graphic has been prepared for general planning purposes only.



ALISH		
	Proposed IAL (ac.)	%
Prime	1,352.7	2.4%
Other	38,716.1	68.2%
Unclassified	16,703.0	29.4%
Total :	56,771.8	100.0%



- Legend**
- Proposed Important Ag. Lands
 - ALISH**
 - Prime ALISH
 - Other ALISH
 - Unclassified

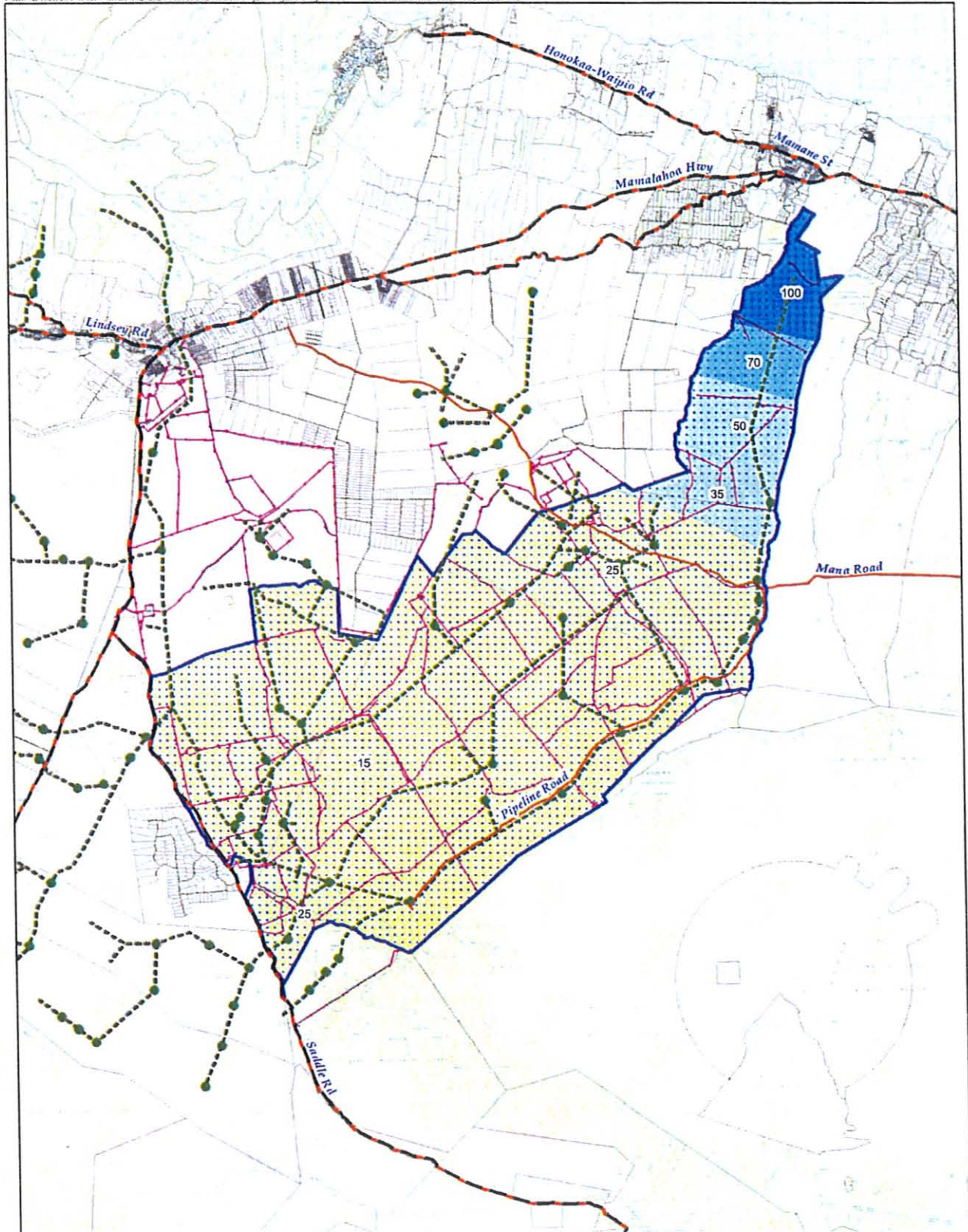
FIGURE 4:
Agricultural Lands of Importance to the State of Hawai'i

Parker Ranch IAL **Parker Ranch**

PARKER RANCH, INC. ISLAND OF HAWAII

NORTH LINEAR SCALE (FEET)
 0 5,000 10,000 20,000

Source: State Department of Agriculture, 1977 (GIS)
 Disclaimer: This graphic has been prepared for general planning purposes only.



Legend

- Proposed Important Ag. Lands
- Ranch Water Tanks
- Ranch Water Lines
- Ranch Fences

Median Annual Rainfall (inch)

	15
	25
	35
	50
	70
	100

FIGURE 5:
Ranching Infrastructure and Water System

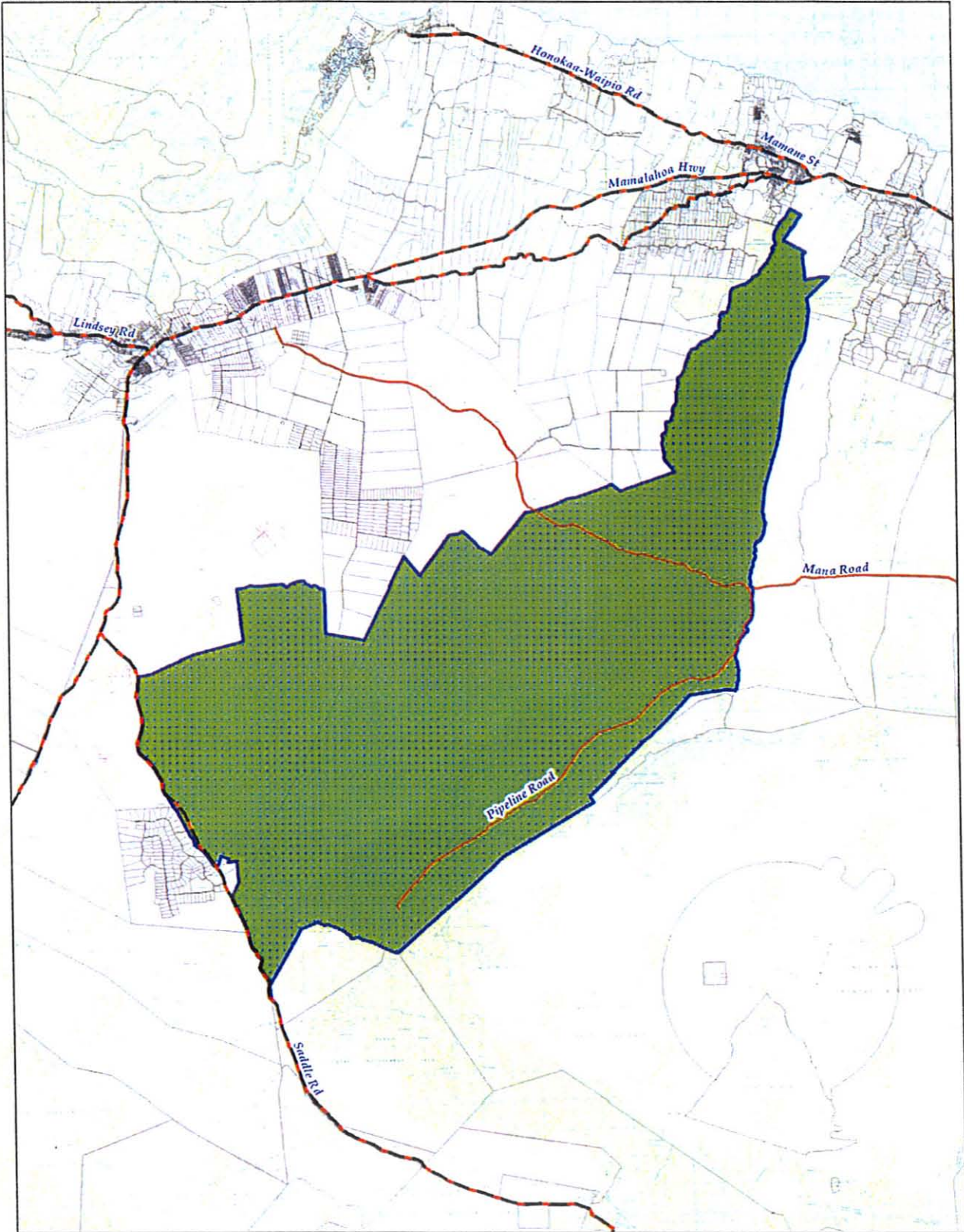
Parker Ranch IAL Parker Ranch

PARKER RANCH, INC. ISLAND OF HAWAII

NORTH LINEAR SCALE (FEET)

0 5,000 10,000 20,000

Source: Parker Ranch Data, GIS (2006)
 Disclaimer: This graphic has been prepared for general planning purposes only.

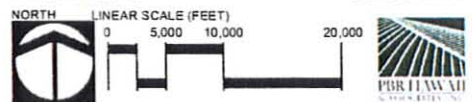


Legend

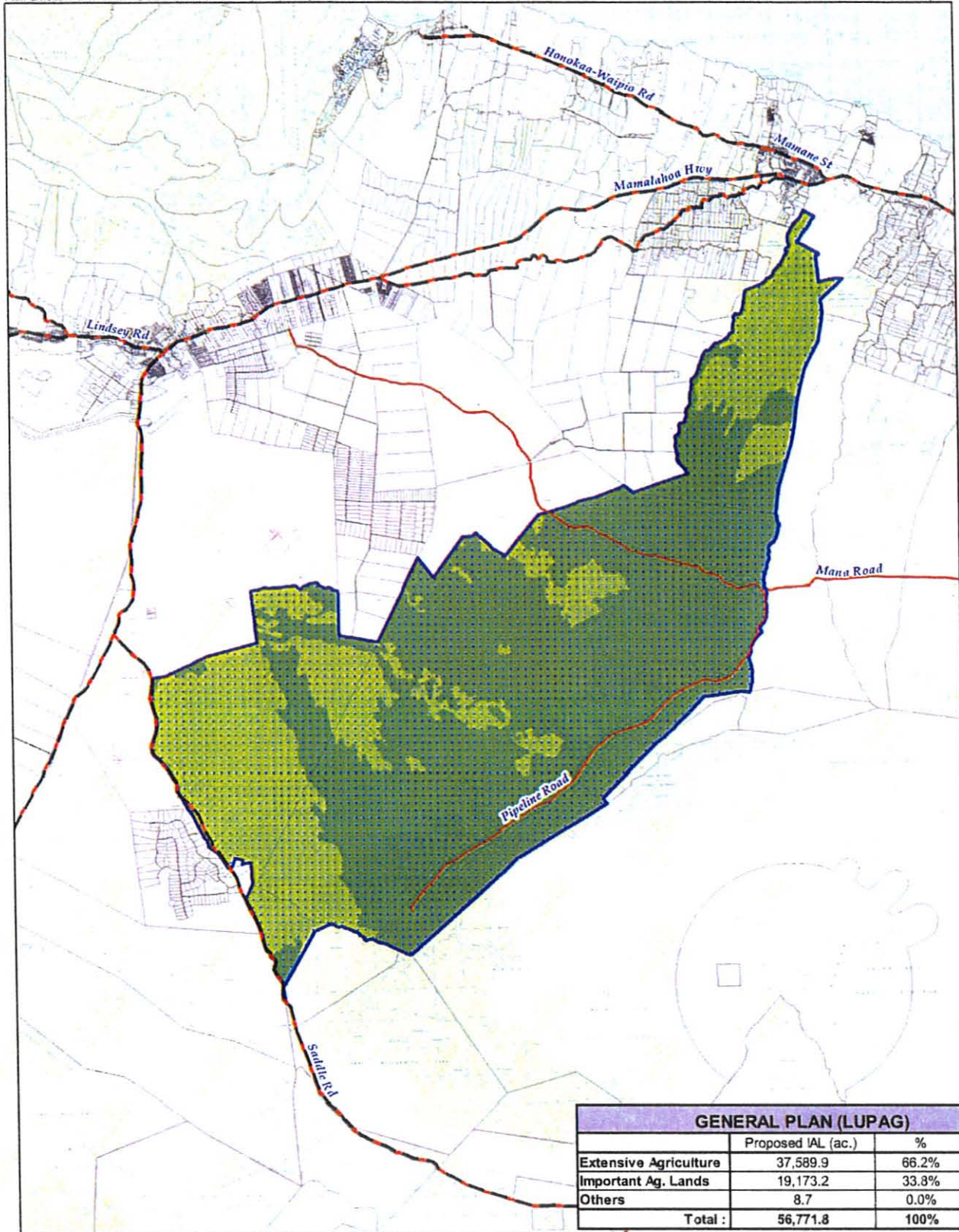
-  Proposed Important Ag. Lands
-  State Land Use Districts
-  Agriculture
-  Urban
-  Rural
-  Conservation

**FIGURE 6 :
State Land Use Districts**

Parker Ranch IAL Parker Ranch
PARKER RANCH, INC ISLAND OF HAWAII



Source: State Land Use Commission 2010 (GIS).
Disclaimer: This graphic has been prepared for general planning purposes only.



Legend





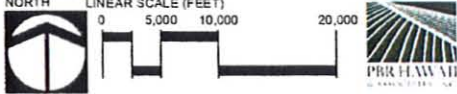
-  Proposed Important Ag. Lands
-  Extensive Agriculture
-  Important Ag. Lands

FIGURE 7:
Hawai'i County 2005 General Plan Important Ag. Lands
Parker Ranch IAL 

PARKER RANCH, INC. ISLAND OF HAWAII

NORTH LINEAR SCALE (FEET)
 0 5,000 10,000 20,000



Source: State GIS Data
 Disclaimer: This graphic has been prepared for general planning purposes only.