

EXHIBIT A

Agricultural Lands Assessment
for
Alexander & Baldwin, Inc.
Maui Lands

April 2009

Prepared for: Alexander & Baldwin, Inc.
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EXHIBIT "A"

Introduction/Purpose

To support a Petition for Declaratory Order to Designate ‘Important Agricultural Lands’ (‘IAL’), an Agricultural Lands Assessment was prepared for lands owned by Alexander & Baldwin, Inc. and its related companies on Maui.

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 Hawaii Constitution and the objectives and policies for IAL in section 205-42 and 205-43. The standards and criteria of section 205-44(c) are as follows:

- 1) *Land currently used for agricultural production;*
- 2) *Land with soil qualities and growing conditions that support agricultural production of food, fiber, or fuel-and energy-producing crops;*
- 3) *Land identified under agricultural productivity rating systems, such as the agricultural lands of importance to the State of Hawaii (ALISH) system adopted by the board of agriculture on January 28, 1977;*
- 4) *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;*
- 5) *Land with sufficient quantities of water to support viable agricultural production;*
- 6) *Land whose designation as important agricultural lands is consistent with general, development and community plans of the county;*
- 7) *Land that contributes to maintaining a critical land mass important to agricultural operation productivity;*
- 8) *Land with or near support infrastructure conducive to agricultural productivity, such as transportation to markets, water or power.*

The following exhibits were prepared to qualify and quantify the agricultural lands being proposed to be designated ‘IAL.’

Figure 1: Existing Cultivated / Farmed Land

Based on the Crop Type Map prepared by Hawaiian Commercial & Sugar Co. (HC&S), the proposed IAL lands are currently utilized for active agricultural purposes.

Approximately 87% of the lands are actively used for the cultivation of sugar cane, and 6% are used for the cultivation of seed corn, pineapple, and pasture. The field numbers and the different crop types are shown on the Figure 1. The remaining 7% of the lands are not in cultivation, however are essential elements of the agricultural operations such as gulches and steep slopes which serve a drainage function or other key agricultural infrastructure, such as reservoirs and irrigation distribution infrastructure.

Figure 2: Agricultural Soils Productivity Ratings

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. As illustrated in Figure 2, over 70% of the proposed IAL lands are rated A (59%) and B (14%). Approximately 27% are rated C, D, and E. The balance of the proposed IAL lands (less than 1%) not classified by LSB are essential elements of the active agricultural operation (drainage gulches, reservoirs, etc.).

Figure 3: Solar Radiation

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, approximately 84% of the proposed IAL lands receive an annual average of 450 calories of solar energy per square centimeter per day.

Figure 4: 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 is based primarily, but not exclusively, on the soil characteristics of lands. There are three classes of ALISH lands – Prime, Unique, and Other. Approximately 76% of the proposed IAL lands are classified as Prime and 13% as Other. The balance of the proposed IAL lands are farmed and/or include essential elements of the active agricultural operation, such as the gulches and reservoirs, and are not classified under ALISH.

Figure 5: Agricultural Infrastructure and Water Resources

The Agricultural Infrastructure and Water Resources Map shows that the proposed IAL lands will be served by HC&S' existing irrigation system, consisting of brackish water wells, reservoirs and two surface water ditch systems. All fields within the proposed IAL lands are currently served by a drip irrigation system.

The East Maui Irrigation (EMI) ditch system is owned, operated and maintained by East Maui Irrigation Company, a wholly owned subsidiary of Alexander & Baldwin, Inc. The West Maui Ditch System is co-owned, operated and maintained by HC&S and the Wailuku Water Company, formerly Wailuku Sugar Company. The delivery capacity of the two ditch systems total approximately 570 million gallons per day (EMI system: 450 mgd; West Maui ditch system: 120 mgd). The long-term average water delivery from the two systems is approximately 195 mgd (this includes only the water delivered from the West Maui system used by HC&S, not the total delivery of the system). In addition, HC&S owns and operates 15 brackish water wells with a total pumping capacity of approximately 228 mgd which are used to supplement ditch flows as needed.

The cultivated areas within the proposed 27,133 acres of IAL have been in cultivation for over 100 years and have historically relied upon these water sources to sufficiently meet their irrigation needs.

In addition to the existing wells, reservoirs and irrigation system, the proposed IAL lands also receive an average of 15.8 to 59.1 inches of rain annually. Therefore, the proposed IAL lands have sufficient quantities of water to support viable agricultural production.

Figure 6: Maui Island Plan (Draft)

The Draft Maui Island Plan (April 2008) is a part of the County's on-going effort to prepare the General Plan 2030 of the County of Maui. Intended to provide a long-term comprehensive strategic planning document for the physical, economic, environmental development and cultural identity of the county, it encompasses goals, policies, programs and actions that are recommended based on an assessment of current and future needs and available resources.

According to the Land Use Policy Map published in this document, the entire proposed IAL lands are outside the proposed Urban Growth Boundary, Resort Areas, and Developed Areas.

Figure 7: Maui Community Plans

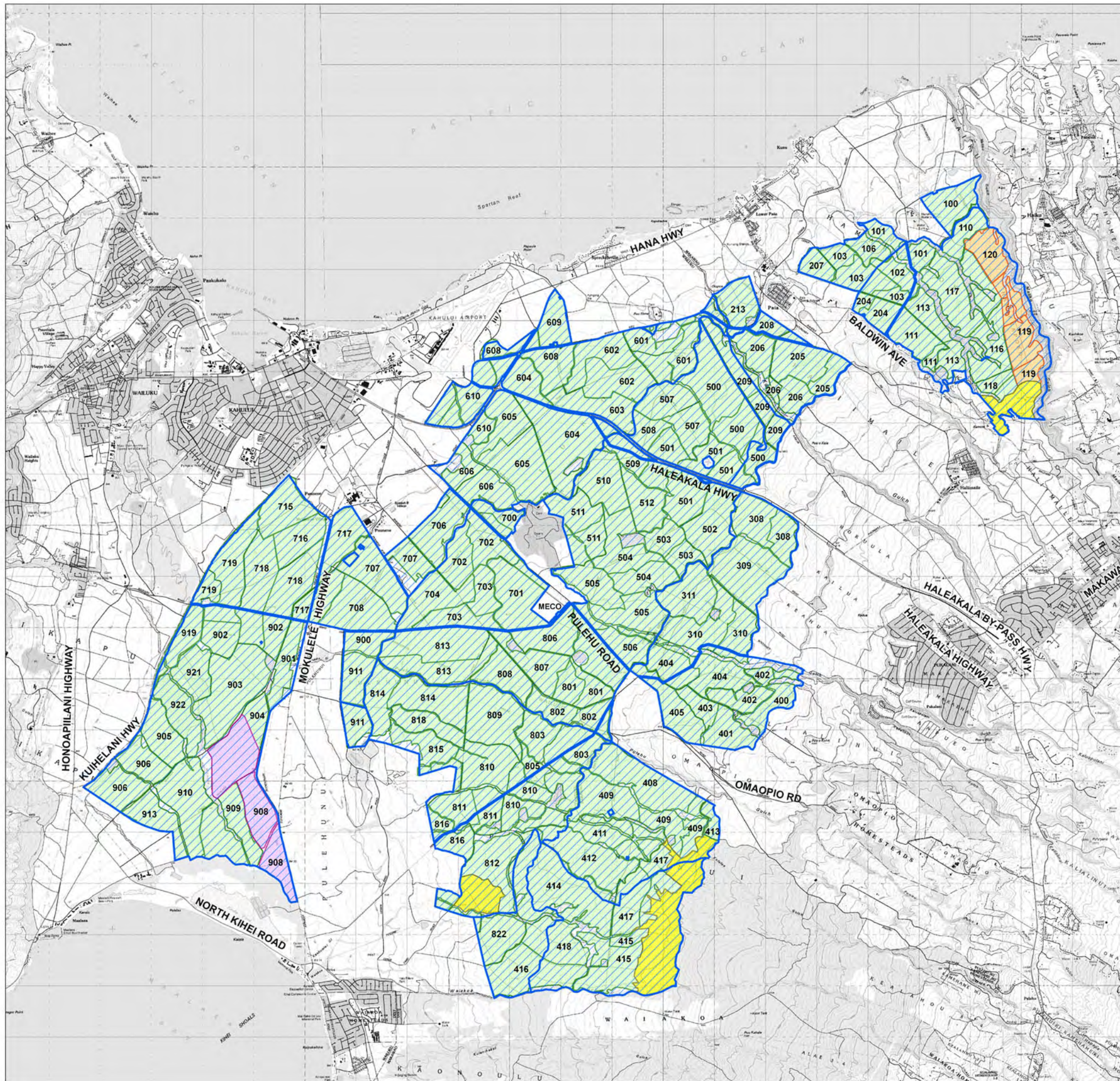
As a more detailed land use element of the General Plan, the Community Plans are land use planning documents that guide government action and decision-making for the total of nine community planning districts within the County of Maui. The documents are district specific and include planning goals, objectives, policies and implementation considerations that provide for optimum planning effectiveness and benefits for the residents in the respective community districts.

Three of the Community Plans Land Use Maps are included for assessment of the proposed IAL lands. The proposed IAL lands are designated Agriculture on the 1990 Wailuku-Kahului Community Plan Land Use Map¹ (Figure 7A). The 1998 Kihei-Makena Community Plan Land Use Map also designates the proposed IAL lands as Agriculture, with Waikapu Stream and a few small areas outside Kealia Pond National Wildlife Refuge designated Open Space (Figure 7B). The 1995 Paia-Haiku Community Plan Land Use Map designates the proposed IAL lands as Agriculture (Figure 7C).

Figure 8: State Land Use District Boundary Map

Utilizing the official State Land Use District Boundary Maps, the proposed IAL lands are illustrated to confirm that all the proposed IAL lands are within the Agricultural District. Where the proposed IAL lands are contiguous to the Urban District boundary, the proposed IAL boundary follows the Urban District boundary.

¹ As amended by Ordinance No. 3061 (Wailuku – Kahului Community Plan 2002), effective June 5, 2002.



Legend

Crop Type


- Sugar
- Pineapple
- Seed Corn
- Pasture/ Other
- Proposed Important Agricultural Lands

Source:
Hawaiian Commercial & Sugar Co.
U.S. Geological Survey


Disclaimer:
This map has been prepared for general planning purposes only.

Figure 1
Existing Cultivated / Farmed Land
A&B IAL Maui

A&B INC.




NORTH




LINEAR SCALE (FEET)

0 1,000 2,000 4,000 8,000

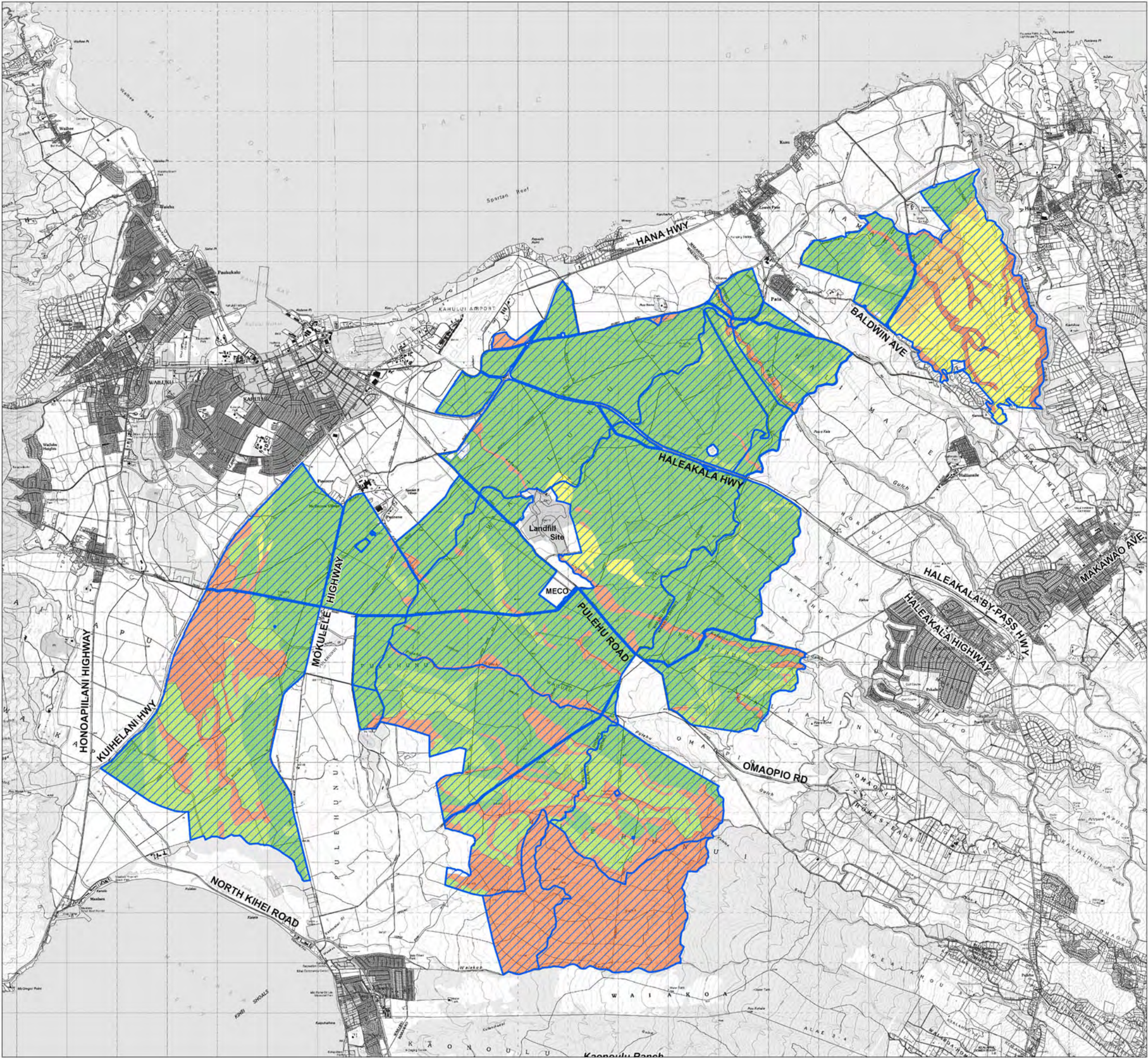


ISLAND OF MAUI



PBR HAWAII & ASSOCIATES, INC.

March 2009



Legend

Agricultural Soils Productivity Rating

- A (Excellent)
- B (Good)
- C (Fair)
- D (Poor)
- E (Very Poor)
- Not Classified
- Proposed Important Agricultural Lands

Source:
Land Study Bureau (1967)
U.S. Geological Survey

Disclaimer:
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Figure 2
Agricultural Soils Productivity Ratings
A&B IAL Maui

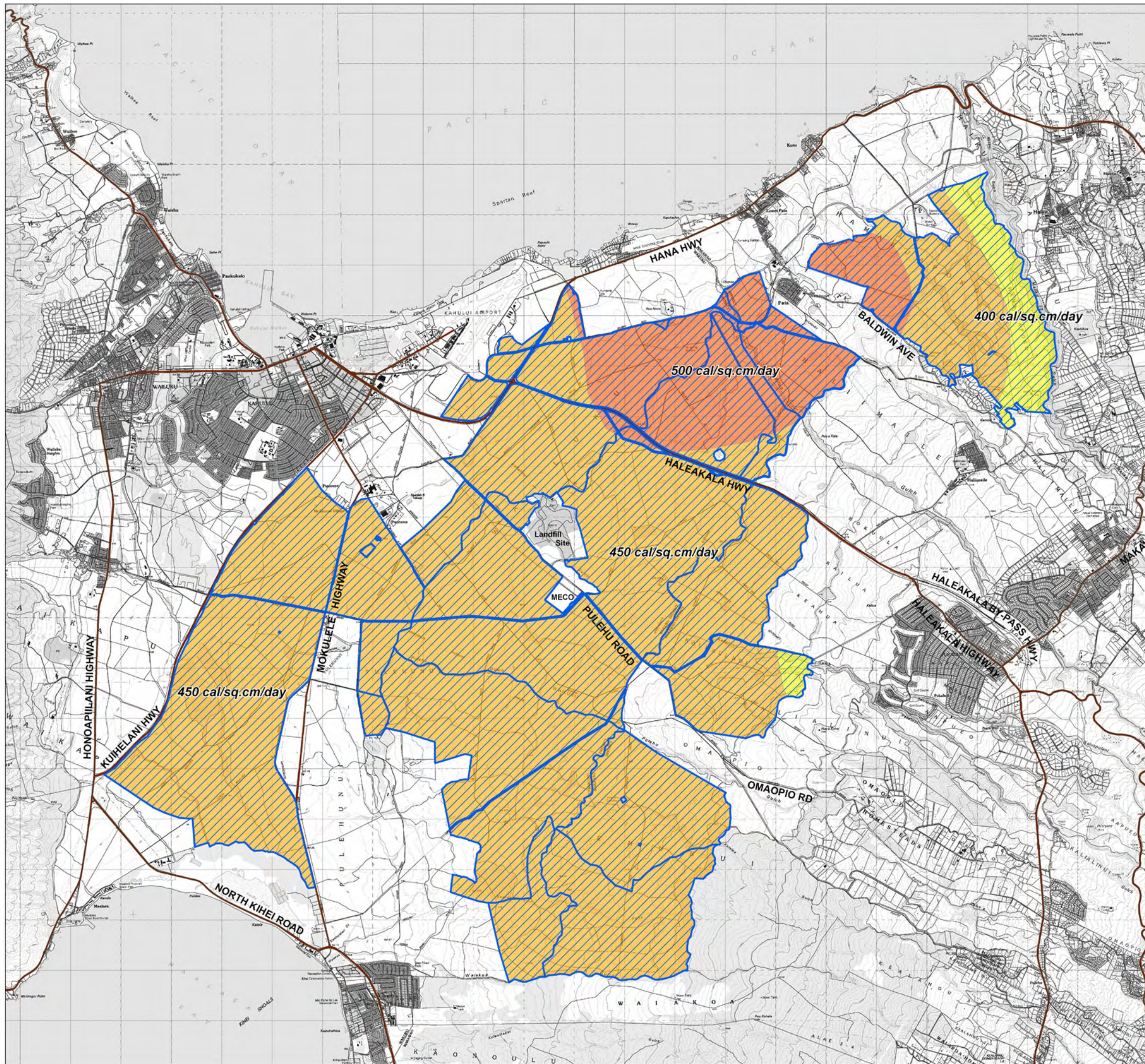
A&B INC. ISLAND OF MAUI

NORTH

LINEAR SCALE (FEET)
0 1,000 2,000 4,000 8,000

March 2009

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Legend

Solar Radiation (cal/sq.cm/day)

- 400
- 450
- 500

Proposed Important Agricultural Lands

Source:
State Department of Planning and Economic Development -
Energy Division "Sunshine Maps," 1985
U.S. Geological Survey

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Figure 3
Solar Radiation Map
A&B IAL Maui

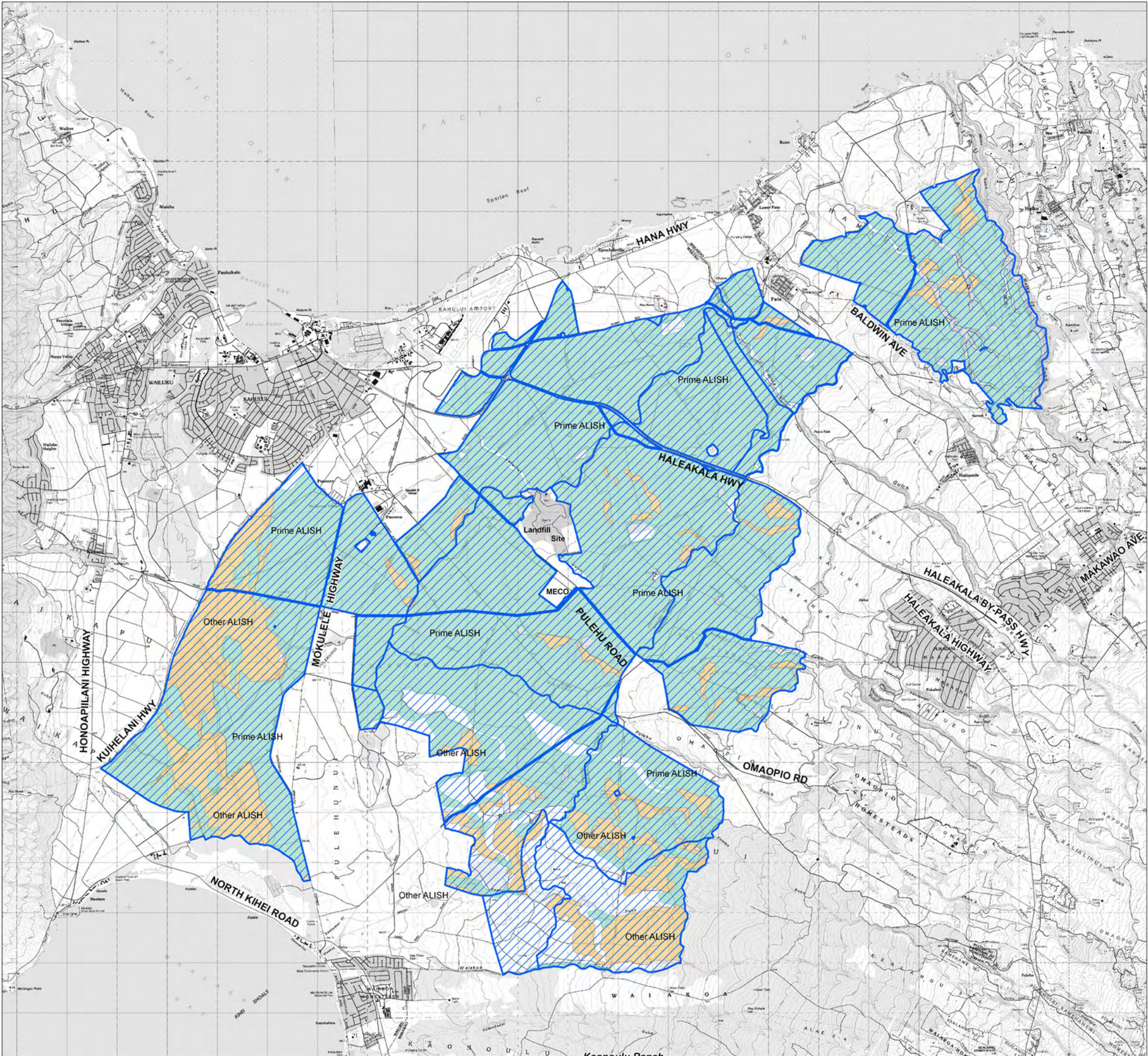
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NORTH

LINEAR SCALE (FEET)
0 1,000 2,000 4,000 8,000

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Legend

- Prime ALISH Lands
- Other ALISH Lands
- Proposed Important Agricultural Lands

Source:
State Department of Agriculture (1977)
U.S. Geological Survey

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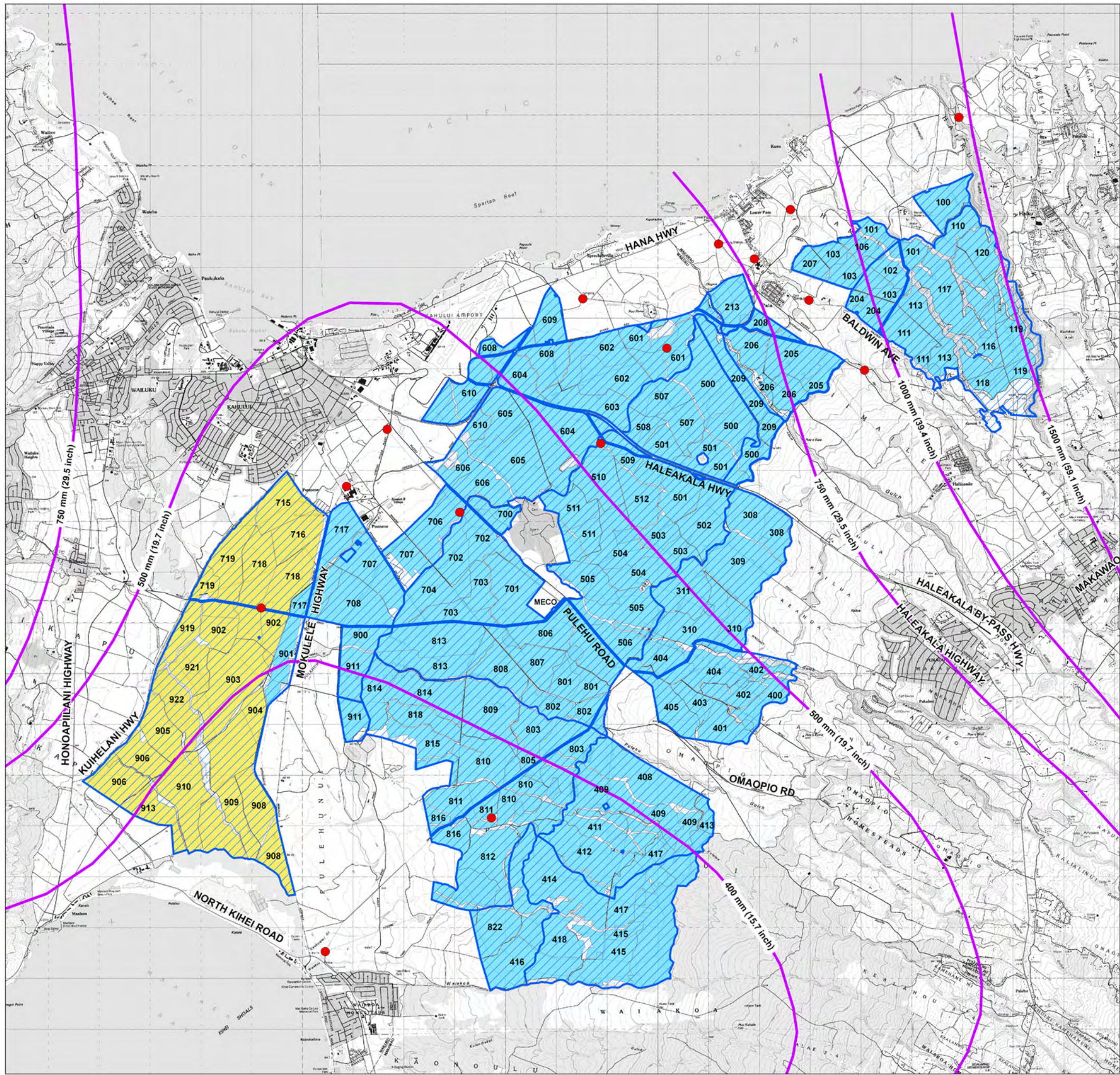
Figure 4
Agricultural Lands of Importance to the State of
Hawaii (ALISH)

A&B IAL Maui

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NORTH LINEAR SCALE (FEET)
0 1,000 2,000 4,000 8,000

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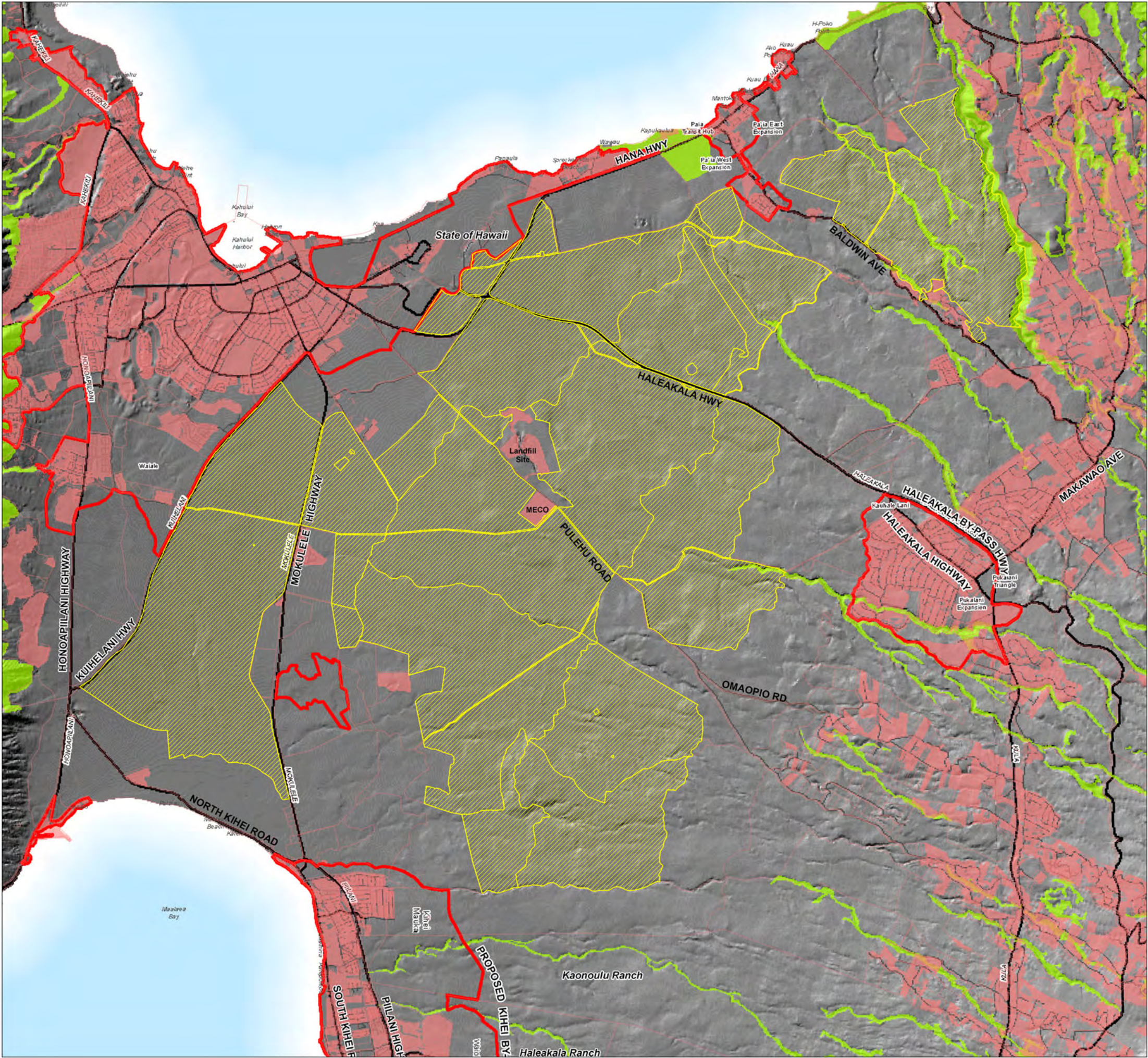
- Legend**
- Served by the EMI Ditch System
 - Served by the West Maui Ditch System
 - Well Locations
 - Annual Rainfall
 - Proposed Important Agricultural Lands

Source:
Hawaiian Commercial & Sugar Co.
U.S. Geological Survey

Disclaimer:
This map has been prepared for general planning purposes only.

Figure 5
Agricultural Infrastructure / Water Resources

A&B IAL Maui



Legend

- Urban Growth Boundary
- Resort Areas
- Developed
- Sensitive Lands
- Proposed Important Agricultural Lands

Source:
County of Maui, Maui Island Plan Draft (4/2008)

Disclaimer:
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Figure 6
Maui Island Plan (Draft) Land Use Policy Map

A&B IAL Maui

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NORTH


LINEAR SCALE (FEET)
0 1,000 2,000 4,000 8,000

March 2009

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Legend

- | | | | |
|-------------|--------------------------------|---|---------------------------------------|
| AG | Agriculture |  | Proposed Important Agricultural Lands |
| R | Rural | | |
| SF | Single Family Residential | | |
| MF | Multi-Family Residential | | |
| B | Business/Commercial | | |
| BR | Business/Multi-Family | | |
| BI | Business/Industrial | | |
| LI | Light Industrial | | |
| HI | Heavy Industrial | | |
| H | Hotel | | |
| P | Public/Quasi-Public | | |
| PK | Park | | |
| OS | Open Space | | |
| PD | Project District | | |
| A | Airport | | |
| C | Conservation | | |
| SB/R | Service Business / Residential | | |

Sources:
County of Maui Wailuku-Kahului Community Plan (1990)
Ordinance No. 3601 (Wailuku-Kahului Community Plan 2002), effective June, 5, 2002.
Disclaimer:
This map has been prepared for general planning purposes only.



Figure 7A
Wailuku-Kahului Community Plan Land Use Map

A&B IAL Maui

A&B INC. ISLAND OF MAUI

NORTH

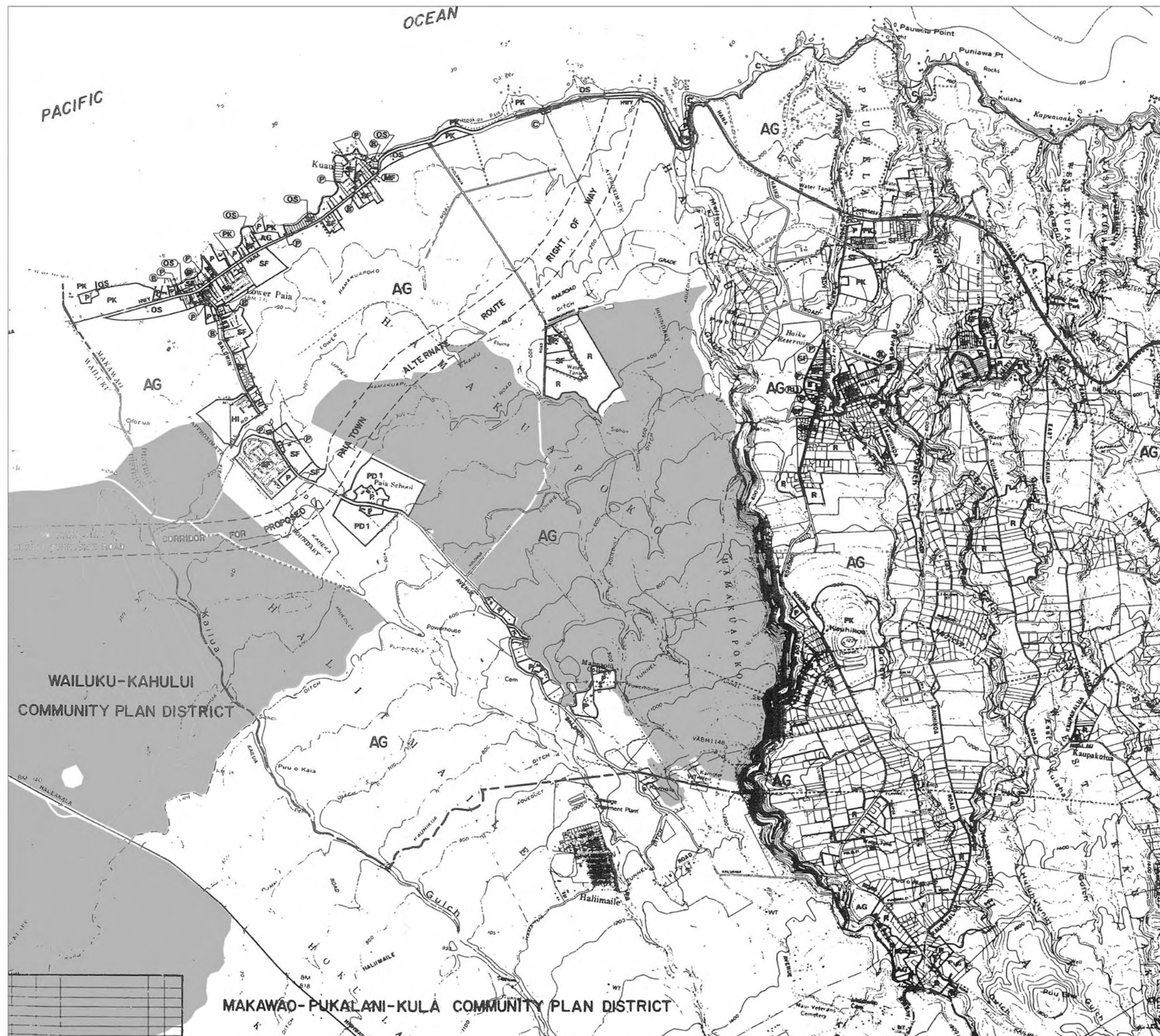
LINEAR SCALE (FEET)
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Figure 7B
Kihei-Makena Community Plan Land Use Map



Legend

- AG Agriculture
 - R Rural
 - SF Single-Family Residential
 - MF Multi-Family Residential
 - B Business/Commercial
 - BR Business/Multi-Family
 - BI Business/Industrial
 - LI Light Industrial
 - HI Heavy Industrial
 - H Hotel
 - P Public/Quasi-Public
 - PK Park
 - OS Open Space
 - PD Project District
 - A Airport
 - C Conservation
 - SB/R Service Business / Residential
- Proposed Important Agricultural Lands

Sources:
County of Maui Kīhei Makena Community Plan (1995)
Ordinance No. 3601 (Wailuku-Kahului Community Plan 2002), effective June, 5, 2002.
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This map has been prepared for general planning purposes only.

Figure 7C
Paia-Haiku Community Plan Land Use Map
A&B IAL Maui



Legend
Proposed Important Agricultural Lands

Source:
State Land Use Commission (received 10/2008)
Disclaimer:
This map has been prepared for general planning purposes only.

Figure 8
State Land Use
A&B IAL Maui

A&B INC.

NORTH

0 1,000 2,000 4,000 8,000

LINEAR SCALE (FEET)

ISLAND OF MAUI

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March 2009