

MAKILA RURAL COMMUNITY

Environmental Impact Statement Preparation Notice

Prepared for:

MAKILA LAND CO., LLC

Accepting Authority:

Land Use Commission, State of Hawai'i

Prepared by:



September 2015

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SUMMARY

This Environmental Impact Statement Preparation Notice (EISPN) has been prepared in accordance with Chapter 343, Hawai‘i Revised Statutes (HRS) for the Makila Rural Community, a proposed rural residential community on 12 parcels (the Property) that are owned by Makila Land Co., LLC (MLC), a Hawaii limited liability company. The Property is located in the Launiupoko-Polanui area, island of Maui, State of Hawai‘i. Figure 1 shows the location of the Property, relative to Lahaina and Honoapi‘ilani Highway; Figure 2 shows an aerial photo of the Property. Figure 3 shows the Makila Rural Community conceptual plan.

Name:	Makila Rural Community
Location:	Launiupoko-Polanui, Maui, Hawai‘i (Figure 1)
Judicial District:	Lahaina
Tax Map Keys:	TMK (2) 4-7-013:001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012 Figure 4 shows the Tax Map Key (TMK) parcels that comprise the Property. Throughout this EISPN, collectively, the 12 TMK parcels are referred to as the “Property.”
Landowner:	Makila Land Co., LLC (MLC)
Petitioner/Applicant:	MLC
Accepting Authority:	State of Hawai‘i Land Use Commission
Land Area:	Approximately 271.175 acres
Requested Reclassification:	Approximately 231 acres from Agricultural to Rural Approximately 40 acres from Agricultural to Urban
Existing Use:	The Property is currently vacant and undeveloped.
Proposed Action:	MLC is proposing a rural residential community comprised of 150 rural residential lots, a minimum of 50 single-family workforce housing units, with a potential of up to 75 single-family workforce housing units, and a central “village core” with a park, limited commercial space, a community center, and possibly a site for a fire and ambulance substation. Approximately seven acres within the Property are proposed for dedication to the State Department of Transportation for the construction of the Honoapi‘ilani Highway Bypass (aka the Lahaina Bypass).

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Land Use

Designations:

State Land Use District: Agricultural (Figure 5)
Maui Island Plan: within the Rural Growth Boundary (Figure 6);
West Maui Community Plan Designation: Agriculture (Figure 7)
County Zoning District: Agriculture
Special Management Area (SMA): Not in the SMA

Major Approvals

Required/Issuing Body:

Permit/Approval	Issuing Body/Agency
Chapter 343, HRS Compliance	State Land Use Commission
State Land Use District Boundary Amendment	
Community Plan Amendment	Maui County Council
Change in Zoning	
Subdivision	Maui County, Department of Public Works
Building Permit	
Grading Permit	
NPDES Permit	State Department of Health



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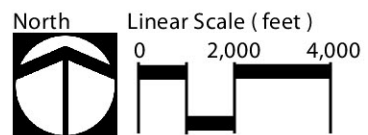
LEGEND

 Makila Rural Community

Figure 1
Regional Location

Makila Rural Community

Island of Maui



Source: ESRI Online Basemap. County of Maui (2013).

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.



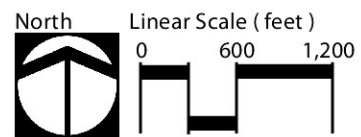
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 Makila Rural Community

Figure 2
Aerial Photograph
Makila Rural Community

Island of Maui



Source: ESRI Online Basemap.

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LEGEND

- Rural Residential
- Rural Village
- Community Park
- Existing Drainage Way/Gulch
- Proposed Primary Roadways
- Future Roadways (under construction)
- Proposed Rural District
- Proposed Urban District
- 500' Building Setback/Buffer

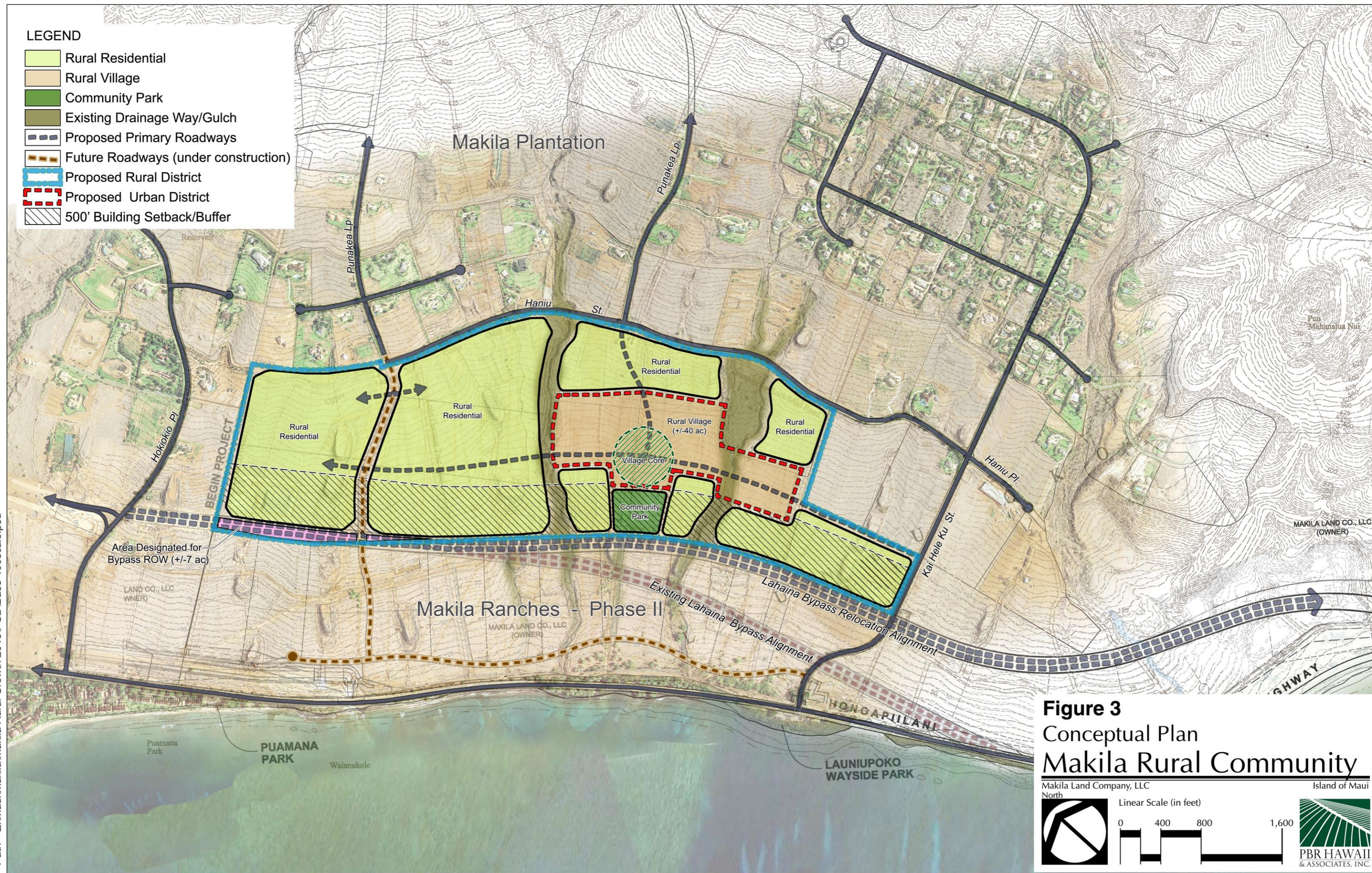


Figure 3
Conceptual Plan
Makila Rural Community

Makila Land Company, LLC
 North

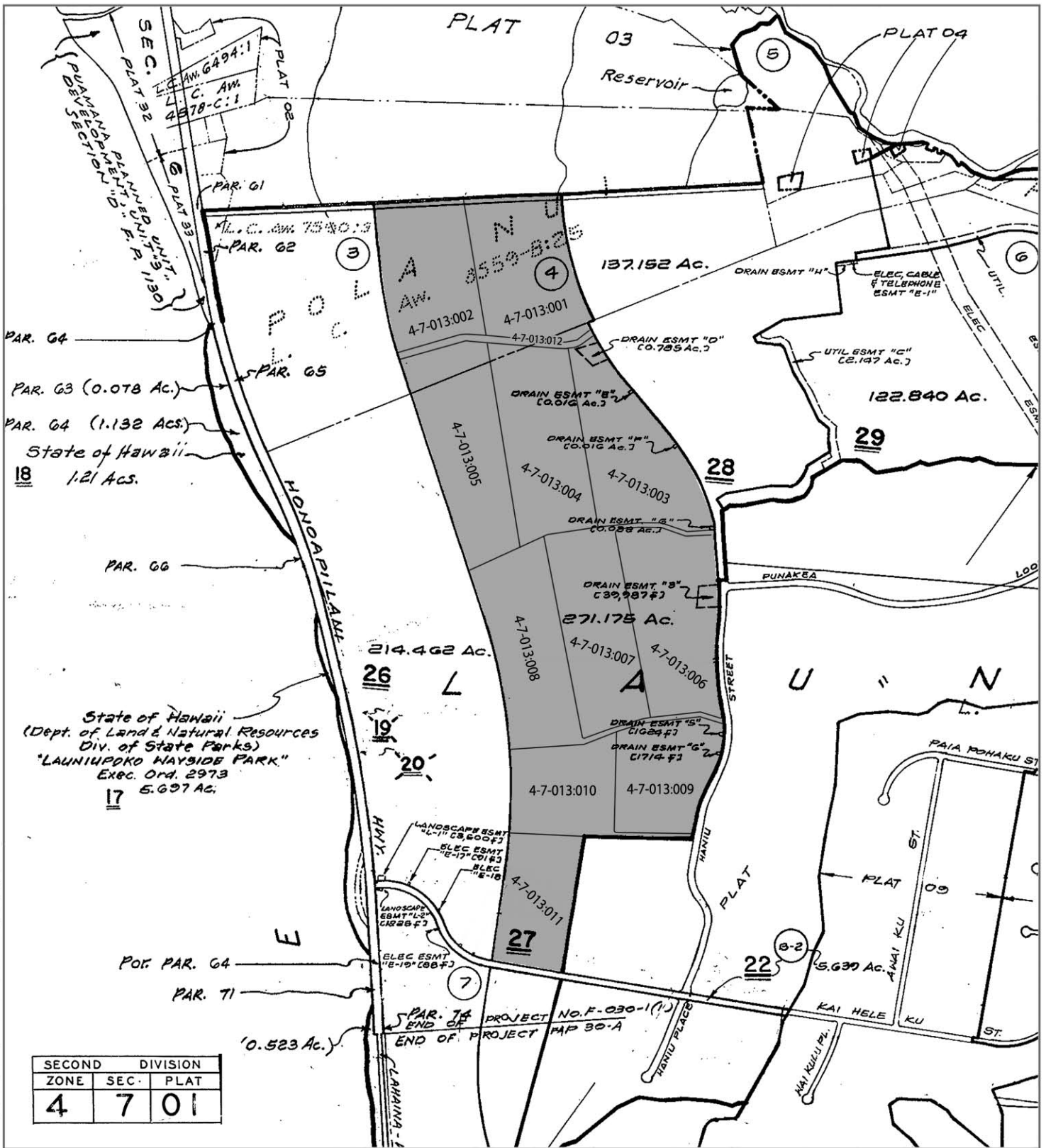
Linear Scale (in feet)
 0 400 800 1,600

Island of Maui

PBR HAWAII
 & ASSOCIATES, INC.

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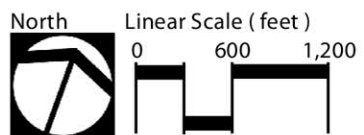
 Makila Rural Community

Figure 4

Tax Map Key

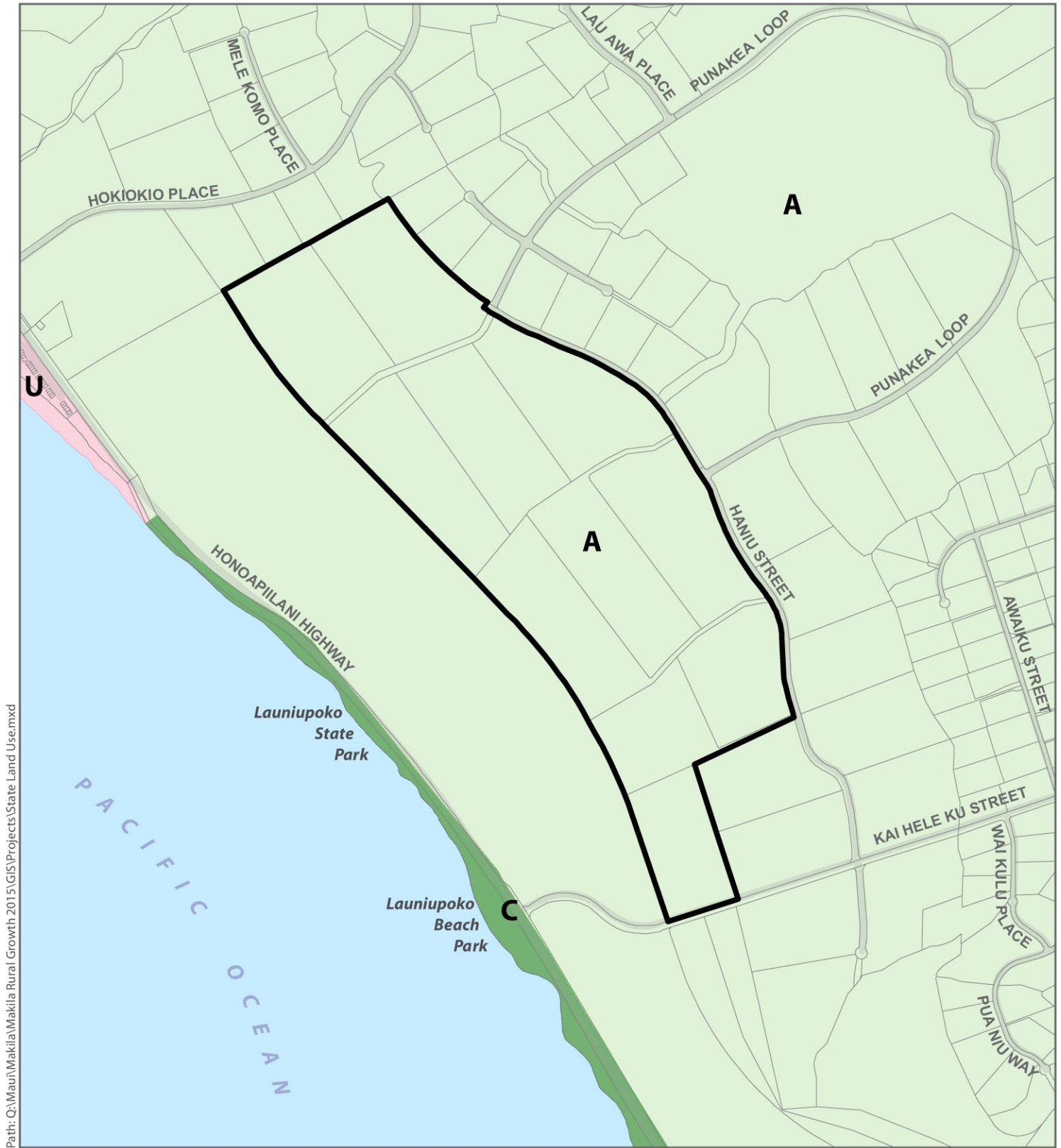
Makila Rural Community

Island of Maui



Source: County of Maui (1990).

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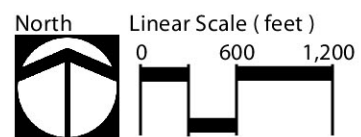
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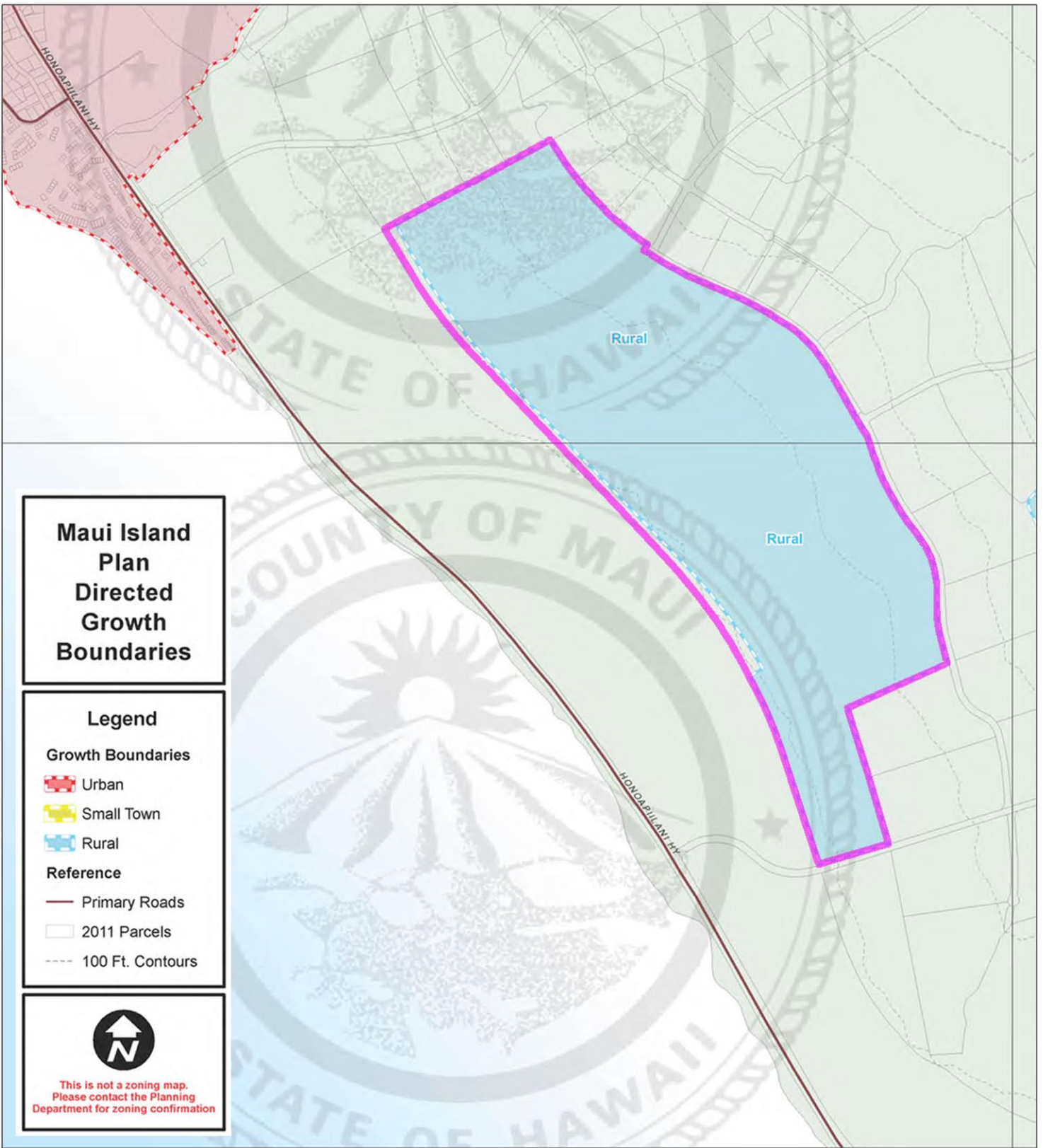
-  Makila Rural Community
-  A: Agricultural District
-  C: Conservation District
-  U: Urban District

Figure 5
State Land Use Districts
Makila Rural Community

Island of Maui



Source: State Land Use Commission (2014).
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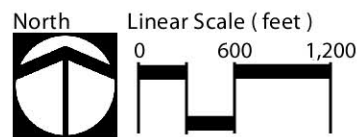
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 Makila Rural Community

Figure 6
Maui Island Plan

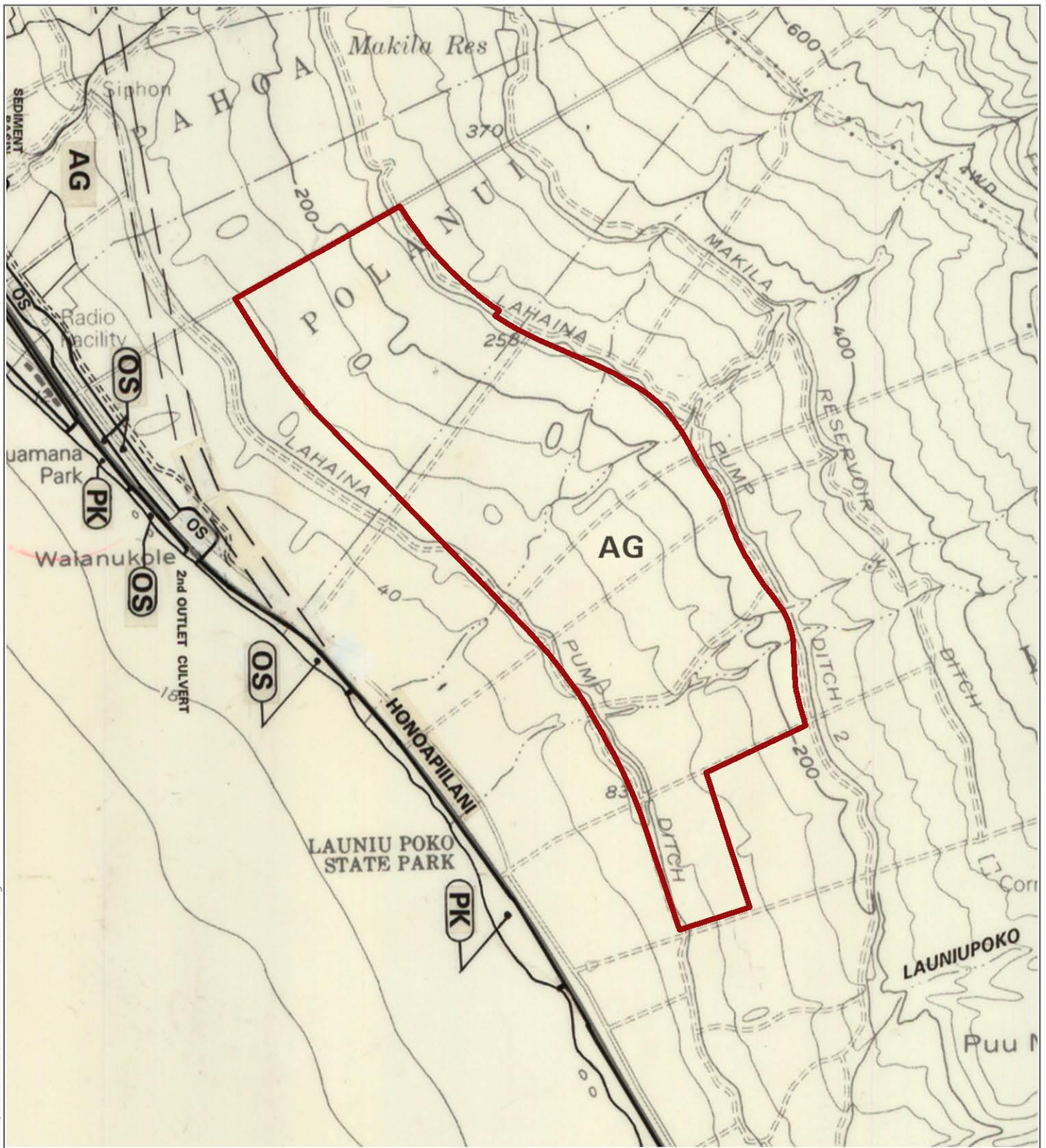
Makila Rural Community

Island of Maui



Source: County of Maui (2012).

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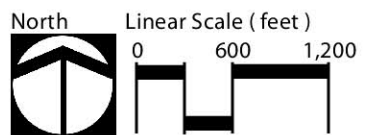
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LEGEND

- Makila Rural Community
- AG Agricultural
- PK Park
- OS Open Space

Figure 7
West Maui Community Plan
Makila Rural Community

Island of Maui



Source: County of Maui (1996).

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

1 IDENTIFICATION OF PROPOSING AGENCY

The applicant is Makila Land Co., LLC (MLC).

Contact: Ms. Heidi Bigelow
Makila Land Co., LLC
305 East Wakea Avenue, Suite 100
Kahului, Hawai'i 96732
Phone: (808) 877-4202
Fax: (808) 877-9409

2 IDENTIFICATION OF ACCEPTING AUTHORITY

The State of Hawai'i Land Use Commission is the accepting authority.

Contact: Mr. Daniel E. Orodener, Executive Officer
State of Hawai'i Land Use Commission
Department of Business, Economic Development & Tourism
Honolulu, Hawai'i 96804-3822
Phone: (808) 587-3822
Fax: (808) 587-3827

3 IDENTIFICATION OF PLANNING & ENVIRONMENTAL CONSULTANT

MLC's environmental planning and environmental consultant is PBR HAWAII & Associates, Inc.

Contact: Tom Schnell, AICP, Principal
PBR HAWAII & Associates, Inc.
1001 Bishop Street, Suite 650
Honolulu, HI 96813
Phone: (808) 521-5631
Fax: (808) 523-1402

4 BRIEF DESCRIPTION OF PROPOSED ACTION

4.1 Location

The Makila Rural Community Property is in the West Maui region of Maui and spans the *ahupua'a* of Launiupoko and Polanui. It is within the Rural Growth Boundary of the Maui Island Plan and is situated approximately one-third mile from the edge of the Lahaina Urban Growth Boundary. The Property totals approximately 271 acres and encompasses 12 parcels (including a roadway lot) subdivided as Makila Ranches Phase I. Figure 1 shows the location of the Property, relative to Lahaina and Honoapi'ilani

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Highway; Figure 2 shows an aerial photo of the Property. Figure 6 shows the location of the Property within the Rural Growth Boundary of the Maui Island Plan.

The Property is bordered by:

- Pu‘unoa Subdivision Phases I and II to the north;
- Makila Plantation Phases I and II to the east (mauka);
- Kai Hele Kū Street to the south; and
- Existing and proposed alignments of the Lahaina Bypass (Phases 1B-2) and Makila Ranches Phase II to the west (makai).

4.2 Existing Use

The Property is currently undeveloped and vacant. Occasionally it is used for low intensity cattle grazing. The land was cleared for sugar cultivation in the past by former landowner Pioneer Mill Company. However, the land has not been in intensive agricultural production since closure of the sugar plantation in 1999.

4.3 Statement of Purpose and Need

Makila Rural Community addresses the demand and need for rural residential and workforce housing in a desirable location in West Maui. The rural community will provide a logical transition from the Lahaina Bypass, which is proposed to border the community to the west, and the surrounding agricultural subdivisions that have occurred in and around Launiupoko. Within the Rural Growth Boundary of the Maui Island Plan, the Makila Rural Community implements this plan by preserving open space, maximizing the efficient use of infrastructure, and protecting natural, agricultural, and scenic resources.

4.4 Makila Rural Community Description

The Makila Rural Community will be a rural residential community proposed to contain: 1) approximately 150 rural residential lots ranging in size from approximately one-half to one-acre; and 2) a minimum of 50 single-family workforce housing units, with a potential of up to 75 single-family workforce housing units, on lots with a minimum size of 6,000 square feet. The workforce housing units will be clustered near a central “village core” which is envisioned to offer basic conveniences and services including a park, limited commercial space, a community center, and possibly a site for a fire and ambulance substation. In addition, approximately seven acres within the Property are proposed for dedication to the State Department of Transportation for the construction of the Lahaina Bypass. Figure 3 shows the Makila Rural Community conceptual plan.

Walking and/or bike paths will link to the village center, encouraging a healthy, social lifestyle and reducing dependence on cars for transportation. In the same spirit, an internal road will extend the existing, mauka Punakea Loop road through the community (via the roadway lot (TMK 4-7-013-012)) to cross under the Lahaina Bypass, so that residents may safely access the coast by bike or on foot. This roadway and underpass will also provide linkages between the Makila Rural Community and neighboring communities including Launiupoko and Lahaina Town.

Approximately 50 percent of the community will be open space for agriculture, community gardens, trails, parks, and natural areas. The open space area will include a 500-foot wide greenbelt on the makai side of the community to ensure an open space buffer between the Lahaina Bypass and the proposed dwellings and commercial structures.

Low Impact Development (LID) techniques, such as drainage sedimentation control systems, are proposed to mitigate the potential for flooding makai of the community and to prevent nonpoint source pollution from entering coastal waters. In addition, a private package waste water treatment facility is proposed, with recycled wastewater to be used for irrigation purposes.

The Property is within the State Land Use Agricultural District. MLC has filed petition for a State Land Use District Boundary Amendment with the State Land Use Commission to reclassify: 1) approximately 231 acres from the State Agricultural District to the State Rural District for the rural homestead lots; and 2) approximately 40 acres from the State Agricultural District to the State Urban District for the workforce housing homes and village core area. At the appropriate time, MLC intends to also seek a community plan amendment and change in zoning from the County of Maui.

5 DESCRIPTION OF THE ENVIRONMENT

The Property elevation ranges from 95 to 275 feet above sea level. Rainfall averages 15 inches a year, with most falling during the winter.

There are no known environmentally sensitive areas, wetlands, Critical Habitat, or endangered plant or animal species on the Property.

Vegetation on the Property is predominantly non-native, and consists mainly of dryland grasses which are grazed short by cattle. A substantial portion of the ground is bare. Shrubs and a few trees inhabit the gullies.

Under the United States Department of Agriculture Natural Resources Conservation Service soil classification system, all soils on the Property are part of the Waianai series, which is made up of deep, well-drained soils (Figure 8). Permeability is moderate to moderately rapid, with medium runoff. The Waianai soils formed from weathered volcanic rock, and were deposited by water at the foot of the West Maui Mountains. Slopes range from 3 to 15 percent.

The majority of the Property is not designated under the Agricultural Lands of Importance to the State of Hawai'i (ALISH) soil classification system, however a small area is designated as "Other" (Figure 9). The University of Hawai'i Land Study Bureau Land Study Bureau classifies the soils of the Property primarily as "Good" (B), with soil in and around erosional features classified as "Very Poor" (E) (Figure 10).

Large, man-made rock piles in the area are the result of field clearing for sugarcane production and ranching. The Property contains some other historic remains from past agricultural activities, such as irrigation systems, terraces, slag scatter, modified rock deposit, lithic/midden scatter, and wall segments.

According to the Flood Insurance Rate Map (Figure 11) prepared by the Federal Emergency Management Agency, National Flood Insurance Program, the Property is within Flood Zone X. This means that Makila Rural Community is outside the 0.2 percent-annual-chance (500-year) flood zone.

6 PLANNING HORIZON

The planning horizon for the proposed Makila Rural Community is long-term, as the forthcoming Environmental Impact Statement (EIS) is intended to assess both short-term and long-term potential impacts of the rural community's presence in West Maui. The community is designed to accommodate the vision and core values set forth in the Maui Island Plan, thus ensuring sustainability for the long-range planning horizon.

It is estimated that all backbone infrastructure necessary for the Makila Rural Community can be completed within 10 years of the Land Use Commission approval of the State Land Use District boundary amendment.

The Draft EIS will include a discussion of what other actions in the area are reasonably foreseeable in the future.

7 ALTERNATIVES

The Draft EIS will include a discussion of alternatives including taking no action and alternate site designs.

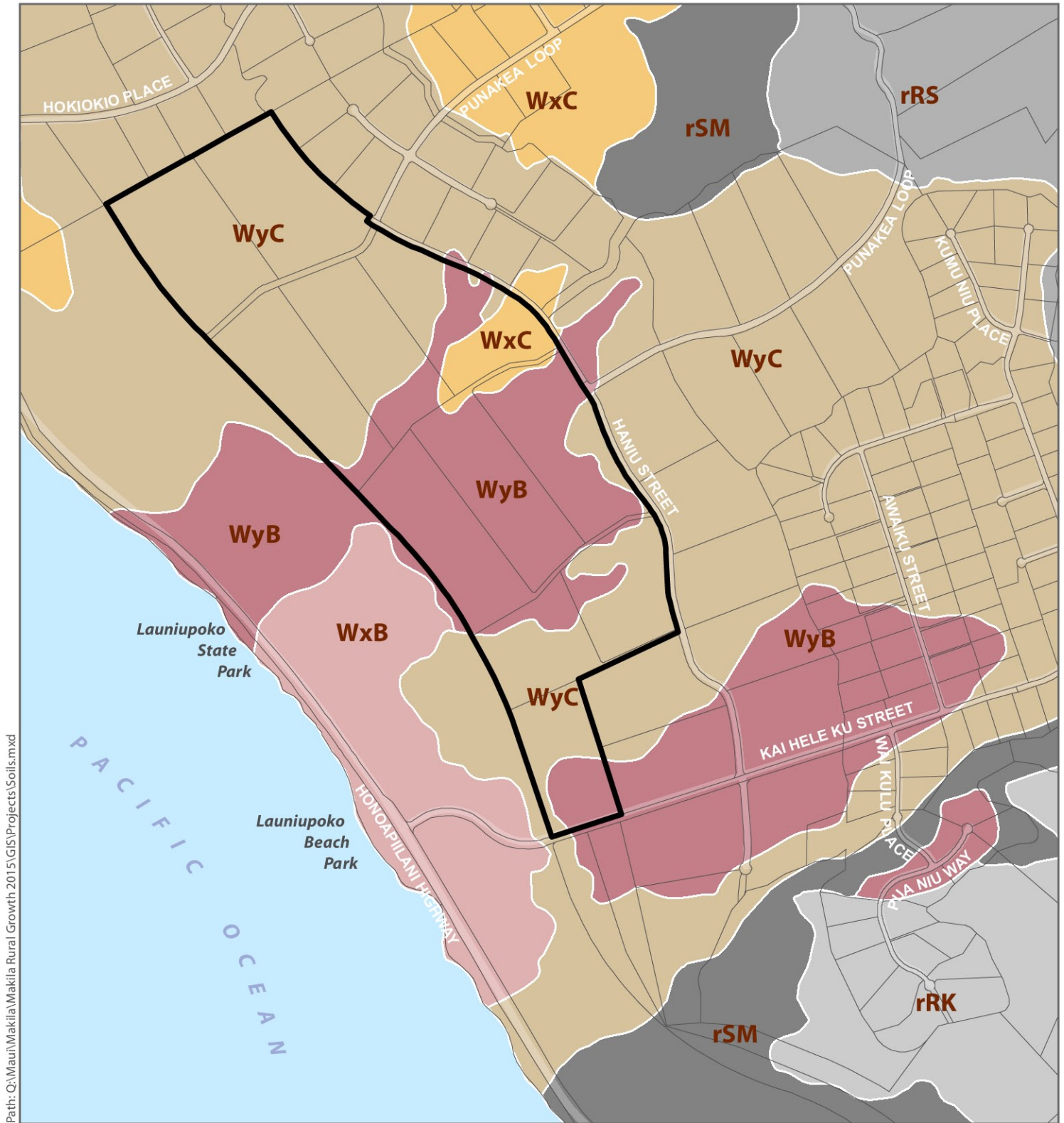
8 DETERMINATION

Section 343-5 (e), HRS (enacted by Act 172 (2012)) allows an applicant to prepare an EIS rather than an environmental assessment if the accepting authority determines, through its judgment and experience, that an EIS is likely to be required. The preparation of such an EIS begins with the preparation of an EISPN, sometimes referred to as an "Act 172 EISPN." Under the provisions of §343-5 (e), HRS, and based on consultation with State Land Use Commission staff, MLC has determined that an EIS is likely to be required for the Makila Rural Community.

Preparation of an EIS is being undertaken to address requirements of Chapter 343, HRS and Title 11, Department of Health, Chapter 200, Environmental Impact Rules, Hawai'i Administrative Rules. Section 343-5, HRS, establishes nine "triggers" that require compliance with the State's EIS law. The triggers for the Makila Rural Community include, without limitation, the following:

- Propose any amendments to existing county general plans where the amendment would result in designations other than agriculture, conservation, or preservation, except actions proposing any new county general plan or amendments to any existing county general plan initiated by a county.
- Propose any wastewater treatment unit, except an individual wastewater system or a wastewater treatment unit serving fewer than fifty single-family dwellings or the equivalent.
- Propose the use of State or County lands.¹

¹ Use of State or County lands in relation to the Makila Rural Community is expected to be limited to connections to, or easements across, State or County lands in relation to infrastructure required to serve the community.



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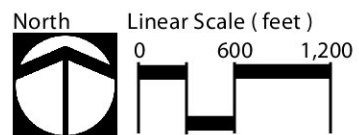
LEGEND

- Makila Rural Community
- WxB: Wainee very stony silty clay, 3 -7% slopes
- WyB: Wainee extremely stony silty clay, 3-7% slopes
- WxC: Wainee very stony silty clay, 7-15% slopes
- WyC: Wainee extremely stony silty clay, 7-15% slopes
- rRK: Rock land
- rRS: Rough broken and stony land
- rSM: Stony alluvial land

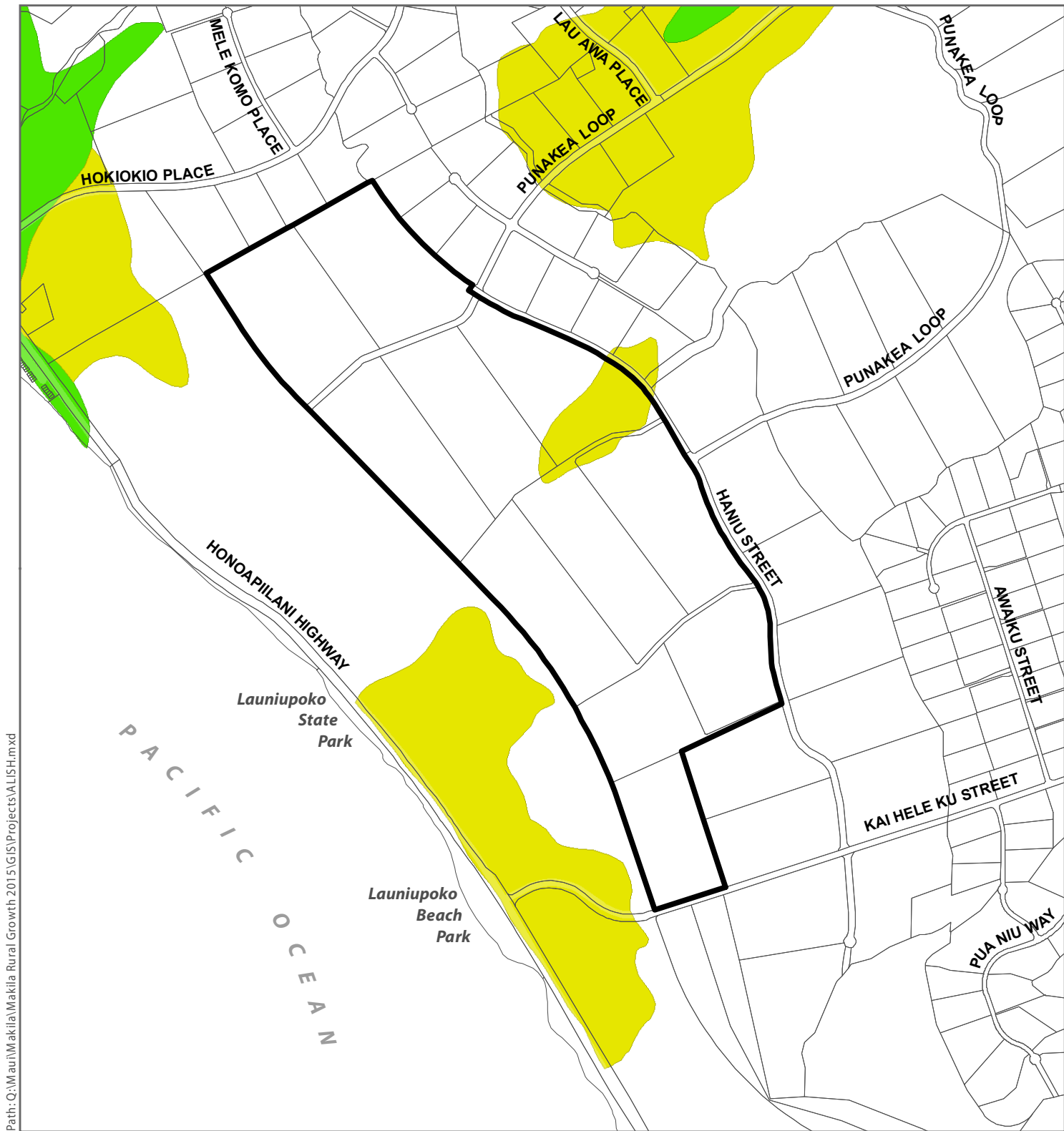
Figure 8
USDA NRCS Soils

Makila Rural Community

Island of Maui



Source: U.S. Department of Agriculture Natural Resources Conservation Service (1972).
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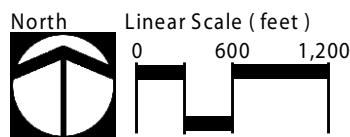
-  Makila Rural Community
-  Prime ALISH
-  Other ALISH
-  Not classified

Figure 9
Agricultural Lands of Importance to the State of Hawaii

Makila Rural Community

Island of Maui



Source: State Department of Agriculture (1977).
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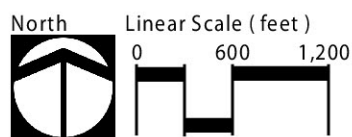
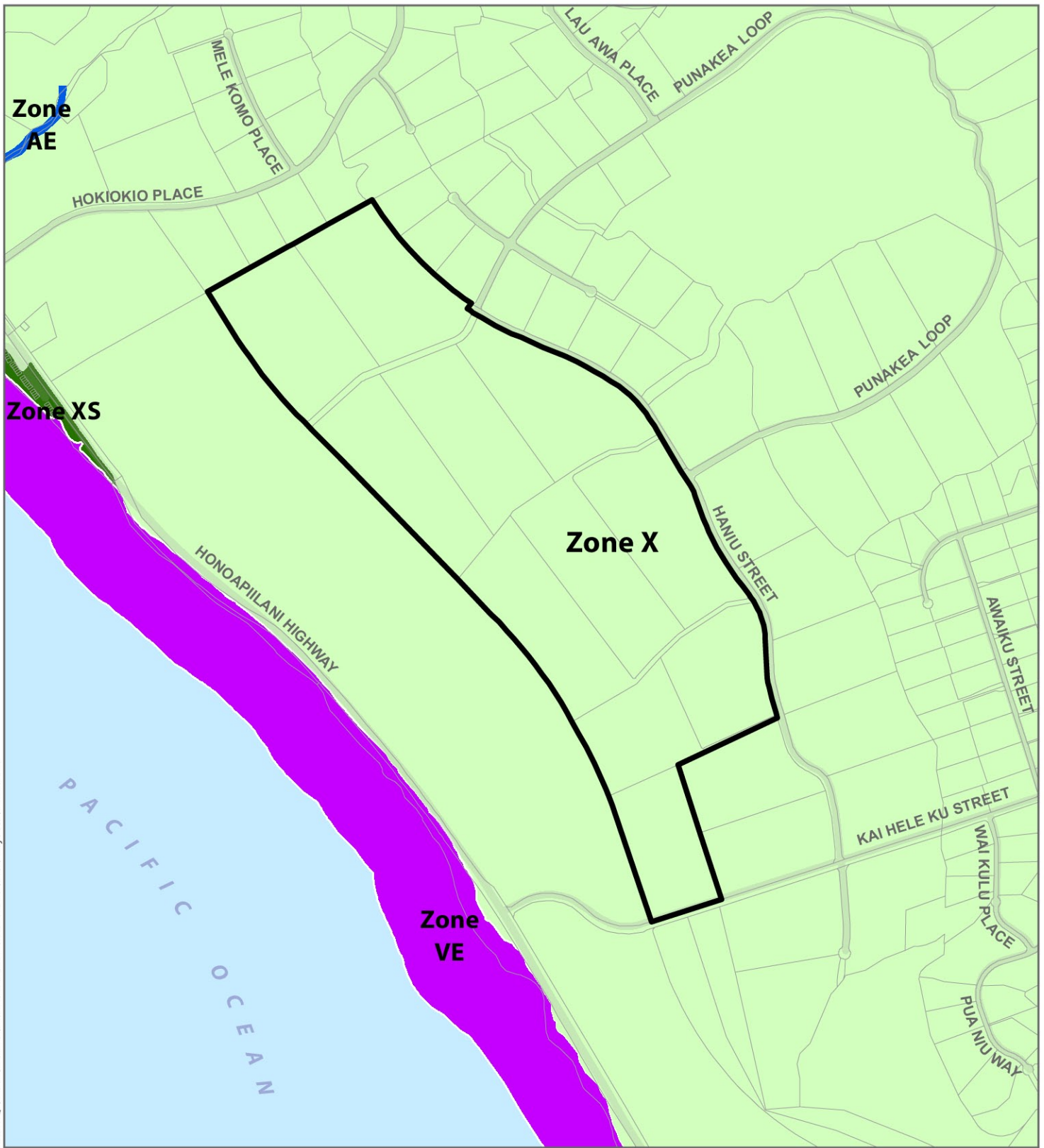
-  Makila Rural Community
-  A: Excellent
-  B: Good
-  C: Fair
-  D: Poor
-  E: Very Poor

Figure 10
Land Study Bureau
Detailed Land Classification
Makila Rural Community

Island of Maui



Source: Land Study Bureau (1972).
 Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.



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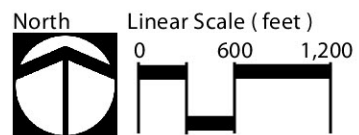
LEGEND

-  Makila Rural Community
-  X: Outside 500-year Flood Zones
-  VE: 100-year Coastal Flood Zones
-  XS: 500-year Flood Zones
-  AE: Floodway

Figure 11
FIRM

Makila Rural Community

Island of Maui



Source: Federal Emergency Management Agency (2012).
Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

8.1 Reasons Supporting the Determination

MLC has determined, in consultation with State Land Use Commission staff, that an EIS (rather than a less extensive environmental assessment) is necessary based on a review of the significance criteria set forth under Section 11-200-12(b), HAR and listed below:

1. Involves in an irrevocable commitment to loss or destruction of any natural or cultural resource;
2. Curtails the range of beneficial uses of the environment;
3. Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments there to, court decisions, or executive orders;
4. Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;
5. Substantially affects public health;
6. Involves secondary impacts, such as population changes or effects on public facilities;
7. Involves a substantial degradation of environmental quality;
8. Is individually limited but cumulatively has a considerable effect upon the environment or involves a commitment for larger actions;
9. Substantially affects a rare, threatened, or endangered species, or its habitat;
10. Detrimentally affect air or water quality or ambient noise levels;
11. Affects or be likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water or coastal waters;
12. Substantially affects scenic vistas and view planes identified in county or state plans or studies; and
13. Requires substantial energy consumption.

Based the above criteria, MLC does not expect that it could be affirmatively concluded that activities associated with the Makila Rural Community would not have a significant effect on the environment. In particular, as a new community on previously undeveloped land, the Makila Rural Community will: 1) involve secondary impacts which may include additional population or effects on public facilities such roads, schools, and recreational facilities; and 2) require additional energy consumption related to both the build out and on-going operations of the community. Further, the Makila Rural Community is expected substantially affect the economic and social welfare of the community in a number of ways, including, through: 1) capital investment, job creation, and tax revenue generation during both the build out and on-going operations of the community, therefore positively impacting the economic welfare of the community and the State; and 2) the provision of workforce housing, thus positively affecting the social welfare of residents of the Maui County.

The Draft EIS will include a full assessment of anticipated impacts, as well as proposed mitigation measures to minimize anticipated adverse impacts. However, MLC does not anticipate that an environmental assessment prepared to assess the anticipated impacts would warrant a Finding of No Significant Impact (FONSI) in light of the significance criteria under Section 11-200-12(b), HAR. Therefore, based on its judgment and experience, MLC believes that the Makila Rural Community is likely to require a full environmental review that is provided through the completion of an EIS and

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therefore that the environmental review should proceed directly to the preparation of an EIS through this EISPN. The State Land Use Commission is believed to be the appropriate accepting authority in light of the fact that the State Land Use District Boundary Amendment is first land use entitlement/request for approval being sought by MLC for the Makila Rural Community. As the accepting authority, the State Land Use Commission has the authority to determine, through its judgment and experience, that an EIS is likely to be required, and therefore to authorize MLC to initiate its environmental review through the preparation of an EISPN.

9 STUDIES ANTICIPATED TO BE INCLUDED IN THE EIS

The forthcoming EIS will include several technical reports and studies prepared by experts in specific fields. The reports and studies are expected to include:

- Air Quality Assessment
- Acoustic Assessment
- Agricultural Impact Assessment
- Archeological Inventory Survey
- Biological Survey
- Cultural Impact Assessment
- Economic and Fiscal Cost Benefit Analysis
- Hydrological Study
- Market Study
- Preliminary Engineering Report
- Traffic Impact Analysis Report
- Wastewater Analysis

10 AFFECTED PARTIES

As part of the Makila Master Planning process, and as a precursor to the Maui General Plan Update, MLC conducted extensive community outreach with nearby residents and stakeholders as well as West Maui associations, groups, and individuals between 2006 and 2008. In addition, there was extensive review of the proposal during the Maui Island Plan proceedings before the General Plan Advisory Committee, the Maui Planning Commission, and the Maui County Council. The proposed Makila Rural Community is the culmination of these community consultation efforts and the resultant incorporation of the project into the Maui Island Plan.

MLC is in the process of undertaking a subsequent round of public outreach for the proposed Makila Rural Community. As of the date of this EISPN, MLC has reached out to the following groups to discuss the proposal:

- Puamana Home Owners Association Board of Directors
- Mahanalua Nui board members and interested homeowners
- West Maui Taxpayers Association
- Lahaina Rotary Club

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- Pu‘unoa Homeowners Association
- Makila Plantation Homeowners Association
- Kuleana Kuikahi

MLC expects to continue community outreach efforts with other community organizations, groups, and interested individuals as the forthcoming EIS is prepared. In the summer of 2015 MLC also met with the State Land Use Commission staff and the County of Maui Planning Department staff regarding the Makila Rural Community and expects to meet with other State and County agencies as the forthcoming EIS is prepared.

In addition, MLC has been working closely with the State of Hawai‘i regarding the southern extension of the Lahaina Bypass terminus, and has committed to donate land to the State for the Lahaina Bypass right-of-way. Also, as part of an overall effort to preserve coastal lands abutting the existing Honoapi‘ilani Highway for parks and open space, MLC reached an agreement with the County of Maui for the County’s acquisition of 185 acres of land stretching between Puamana and the former Olowalu Landfill, a distance of approximately 2.5 miles.

The forthcoming Draft EIS will be sent to all relevant County, State and Federal agencies and organizations, as well as community organizations, groups, and interested individuals and elected officials.

11 REFERENCES

- County of Maui Planning Department, Long Range Division. (2012). *Maui Island Plan, General Plan 2030*. Wailuku, Maui.
- Federal Emergency Management Agency. (2012, September 19). Digital Flood Insurance Rate Map Database, Maui County, Hawai'i, USA. Washington, D.C.
- Maui County Council. (1996). *West Maui Community Plan*. Maui.
- State of Hawai'i Office of Planning. (Accessed 2015). Agricultural Lands of Importance to the State of Hawaii, from State Department of Agriculture 1:24,000 hand drafted blue line maps; compiled and drafted in 1977. Prepared with the assistance of SCS, USDA, CTAHR, University of Hawai'i. *State of Hawai'i Office of Planning GIS Layer*.
- State of Hawai'i Office of Planning. (Updated 2012, Accessed 2015). Land Study Bureau (LSB) Detailed Land Classification, from Land Study Bureau's Detailed Land Classification Aerial Photos hand drafted onto paper overlays of the U.S.G.S., 1:24,000 topographic and orthophoto quads. *State of Hawai'i Office of Planning GIS Layer*.
- State of Hawai'i Office of Planning. (Updated 2014, Accessed 2015). State Land Use District Boundaries, from State Land Use Commission 1:24,000 mylar maps. State of Hawai'i Office of Planning GIS Layer.
- United States Department of Agriculture. (2001, September). Retrieved September 2015, from Official Series Description - Waivee Series:
https://soilseries.sc.gov.usda.gov/OSD_Docs/W/WAINEE.html