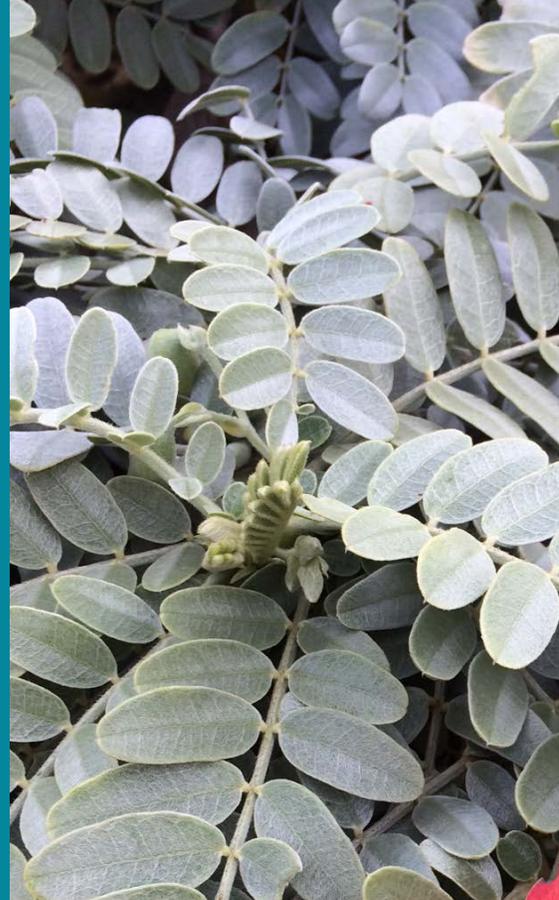




ECOLOGICAL ZONES AND NATIVE PLANTING LIST



DECEMBER 2014



STATE OF
HAWAI‘I
DEPARTMENT OF
TRANSPORTATION
HIGHWAYS
DIVISION



SWCA
ENVIRONMENTAL CONSULTANTS



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CHAPTER 1. INTRODUCTION

OBJECTIVE OF THE STATE OF HAWAII DEPARTMENT OF TRANSPORTATION ECOLOGICAL ZONES AND NATIVE PLANTING LIST

The purpose of the *Ecological Zones and Native Planting List* is to guide the State of Hawai'i Department of Transportation's (HDOT) landscape architects, engineers, and contractors in selecting appropriate native Hawaiian plant species for Highway right-of-way projects. It is important to choose the right plants for each project site. The list identifies which native plants species are adapted to growing in particular ecological zones throughout Hawai'i. By basing native plant selection for Highways projects on ecological zones, the plants are better suited to the particular Highway project site and therefore will have a higher chance of surviving and thriving in the right-of-way (ROW).

The *Ecological Zones and Native Planting List* is provided for each of the four counties: Kaua'i, City and County of Honolulu, Maui, and Hawai'i Island. In addition to the scientific, common, and Hawaiian plant names, the list includes information on the biogeographical status (indigenous versus endemic) and growth form (grass, shrub, etc.) for each species. This document, however, does not provide techniques for planting or maintaining native Hawaiian plants.

Background

The benefits of using native plants for roadside revegetation are widely accepted and include enhanced soil and slope stabilization, conservation of water, aesthetics, carbon sequestration, weed suppression, and enhanced habitat for native wildlife (Steinfeld et al. 2007). However, one of the main challenges to successful roadside revegetation with native plants is that no one-size-fits-all approach can be applied to Highways projects. Hawai'i's climate is extremely diverse given the state's size. Remarkable climatic changes (temperature, rainfall, etc.) occur over short distances due to the mountainous topography (Juvik and Juvik 1998). This wide range of conditions creates diverse environments, or ecological zones, that support different native species. Ecological zones are areas with specific environmental conditions, such as climate, elevation, landform, and soil characteristics.

When selecting plants for roadside revegetation it is important to consider what plants are adapted to the conditions in that location. Native plantings can fail when plants or seeds sourced from populations in one ecological zone, such as lowland wet area, are planted in a different ecological zone, such as the lowland dry area, and vice versa. Plants have a better chance of surviving if they are locally adapted to the site being revegetated. Therefore, when selecting plants for Highways projects, designers and contractors must have the specific knowledge of which native Hawaiian plants naturally occur or are adapted to the project site. Determining the appropriate ecological zone and choosing the right plants for roadside landscape projects can save time and money.

How the HDOT Ecological Zones and Native Planting List Was Created

The HDOT Ecological Zones, or “Ecozones,” were adapted from the moisture zones generated by Price et al. (2012) in their *Mapping Plant Species Ranges in the Hawaiian Islands—Developing a Methodology and Associated GIS Layers* manuscript. Price et al. (2012) developed seven moisture zones by calculating a moisture availability index that considers mean annual precipitation, potential evapotranspiration, and elevation. This resulted in three primary moisture zones (Dry, Mesic, and Wet) across the state, which was further subdivided into seven moisture subzones (three Dry subzones, two Mesic subzones, and two Wet subzones).

To create the HDOT Ecozones, the two Mesic subzones and two Wet subzones were combined, resulting in five total moisture areas (three Dry, one Mesic, and one Wet). Subzones are combined here because this list considers only native plants with the potential to be successful in Highways ROWs, rather than all native Hawaiian plants; thus, the fewer number of plant species fit into fewer zones.

Additionally, because many native Hawaiian plants only occur along the coast, a coastal layer was created using a buffer of 1,640 feet (500 meters) from the coastline. This coastal buffer was then broken up into the various moisture areas. This resulted in 10 HDOT Ecozones. Numbered from 1 to 10, from driest to wettest, the zones are as follows:

- | | |
|---------------------------|-------------------|
| 1. Coastal Arid | 6. Lowland Arid |
| 2. Coastal Very Dry | 7. Very Dry |
| 3. Coastal Moderately Dry | 8. Moderately Dry |
| 4. Coastal Mesic | 9. Mesic |
| 5. Coastal Wet | 10. Wet |

To determine which native Hawaiian species are appropriate in each Ecological Zone, the State Highways layer was overlaid on the 10 Ecological Zones and the native species distribution information was determined according to Price et al. (2012) and Wagner et al. (1999). Only native species known to be used and potentially successful in Highways right-of-way landscaping were considered. Species requiring a higher level maintenance (such as ma’o [*Gossypium tomentosum*], ‘uki’uki [*Dianella sandwicensis*], and kupukupu [*Nephrolepis cordifolia*]) are not included here, but may be considered for Highways right-of-way planting in the future.

In addition, many native species are restricted to biogeographic regions (such as leeward, windward, or a particular volcanic mountain within a particular elevational range). These restrictions are noted in the lists below.

How to Use the HDOT *Ecological Zones and Native Planting List*

The HDOT *Ecological Zones and Native Planting List* is intended to guide HDOT landscape architects, engineers, and contractors' landscapers in choosing appropriate native plants for HDOT planting projects. The general steps listed below should be followed.

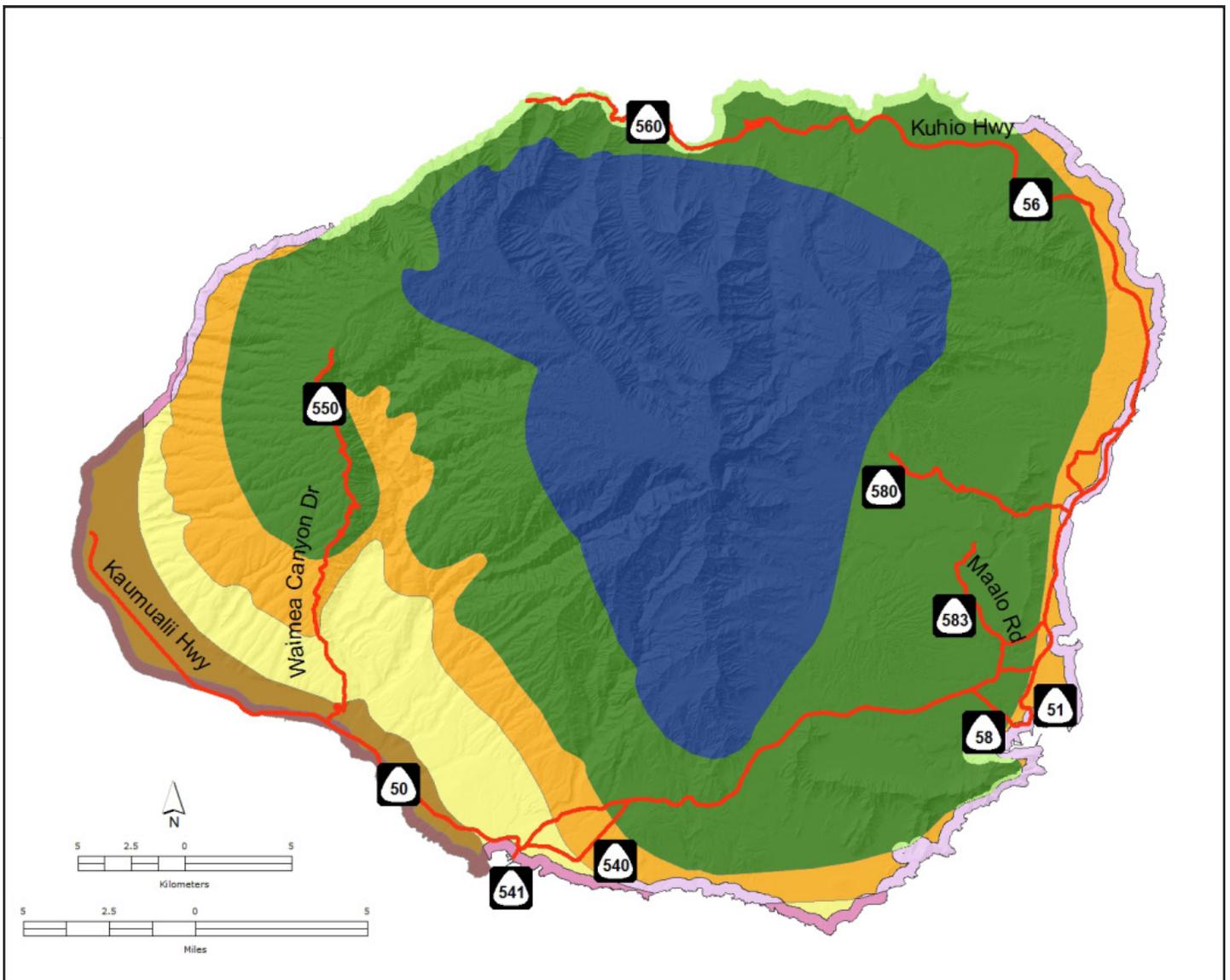
1. Define the objective(s) of the native planting project. This will guide the selection of native species. For example, if the purpose is to provide soil stabilization, shallow rooted species should not be considered.
2. Identify the county and HDOT Ecozone where the landscaping project falls.
3. Determine which plant form(s) (grasses, shrubs, trees, etc.) will best suit the project objectives.
4. Consider any specific requirements listed in the tables.
5. Select the most appropriate plant(s) based on the steps above.

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CHAPTER 2. KAUA'I COUNTY



**Ecological Planting Zones
in Kauai County**

- | | | | | |
|---|---|---|---|--|
|  1. Coastal Arid |  3. Coastal Moderately Dry |  5. Coastal Wet |  7. Very Dry |  9. Mesic |
|  2. Coastal Very Dry |  4. Coastal Mesic |  6. Lowland Arid |  8. Moderately Dry |  10. Wet |
-  State of Hawaii Department of Transportation Roads

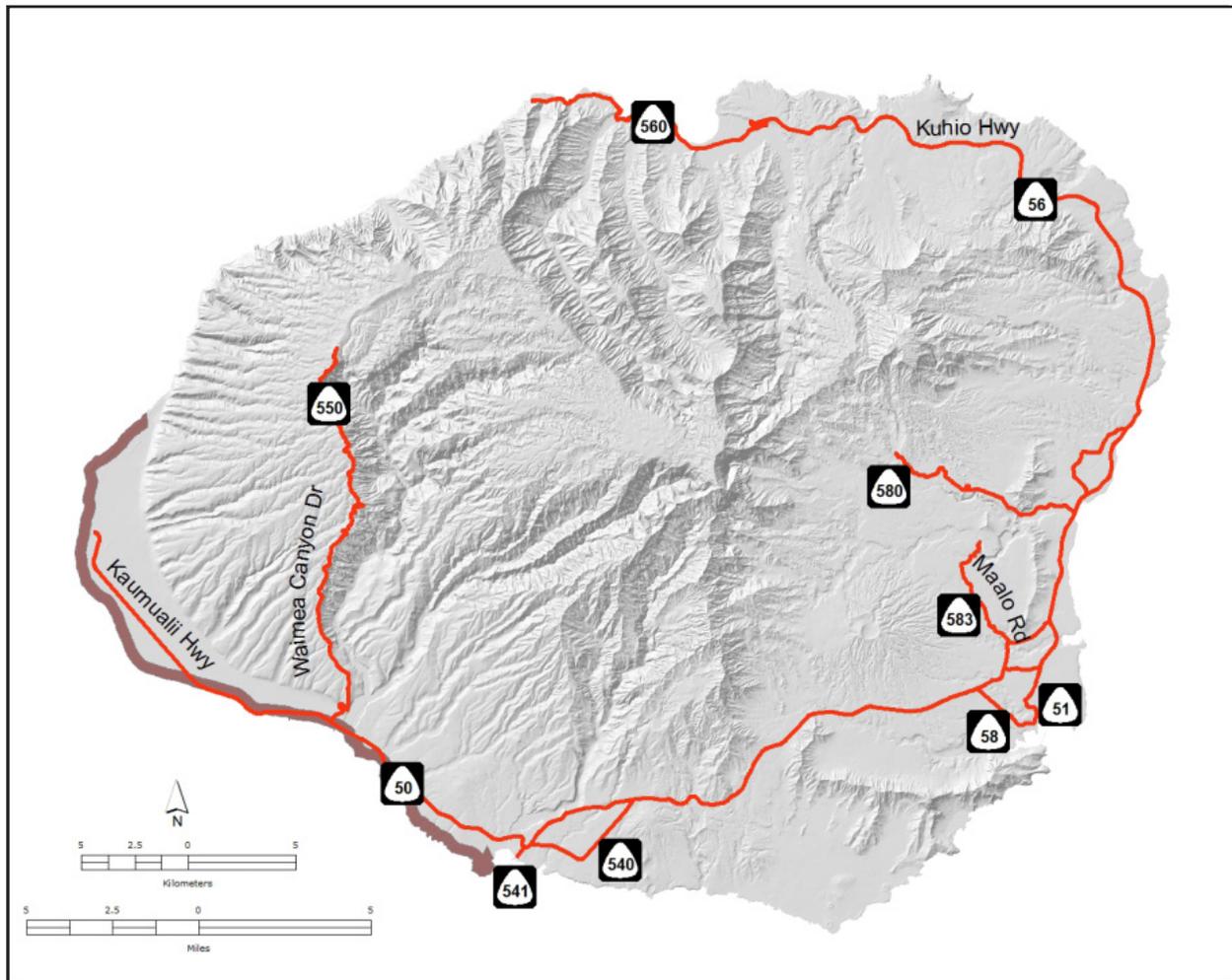
Figure 2.1. Kaua'i County Ecological Zones

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TABLE 2.1: ECOZONE 1 – COASTAL ARID

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Colubrina asiatica</i>	'ānapanapa	Indigenous	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub

*Indicates that the species is listed as federally and state endangered.



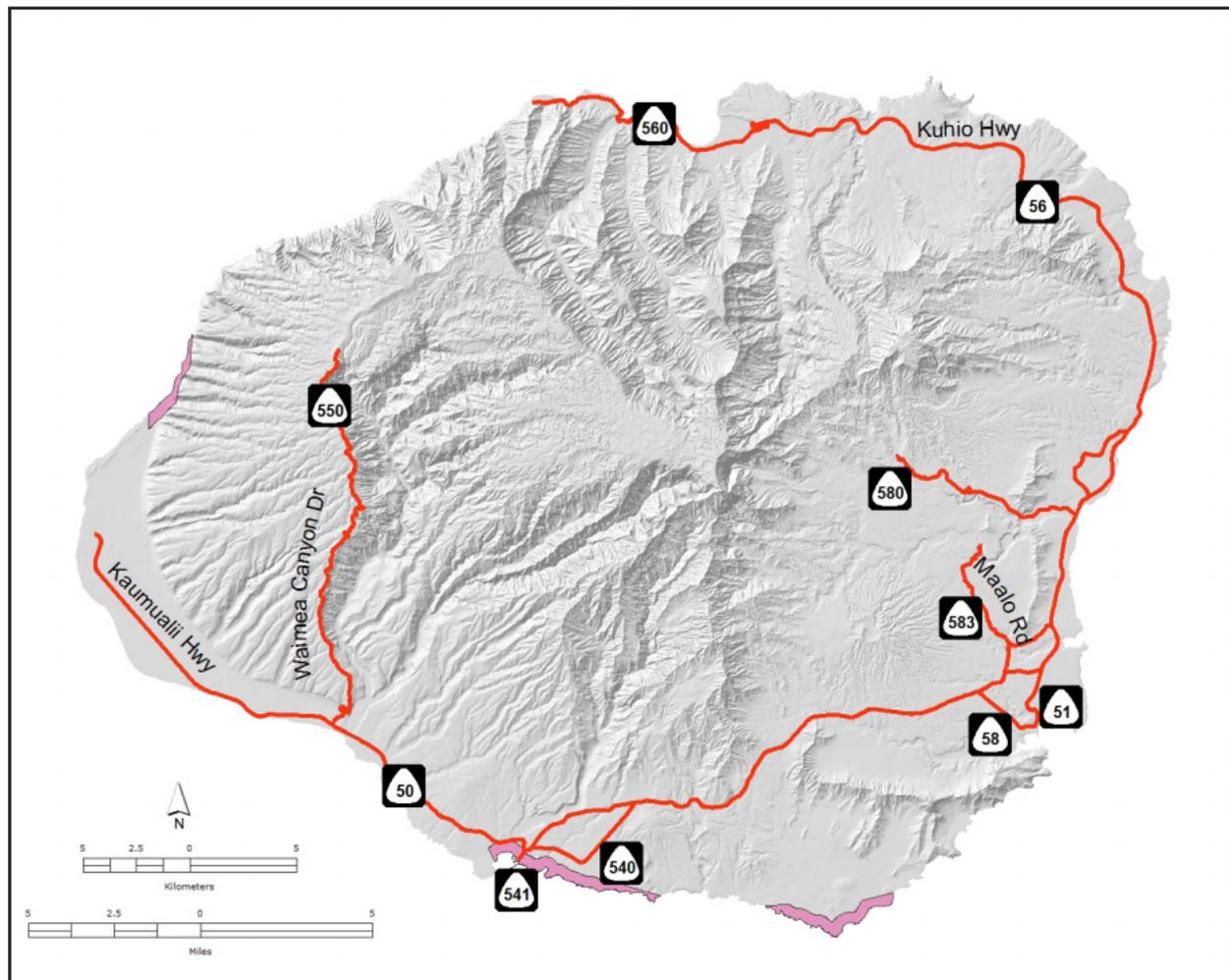
Ecological Planting Zones in Kauai County

1. Coastal Arid State of Hawaii Department of Transportation Roads

TABLE 2.2: ECOZONE 2 – COASTAL VERY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Colubrina asiatica</i>	'ānapanapa	Indigenous	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover /shrub
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover

*Indicates that the species is listed as federally and state endangered.



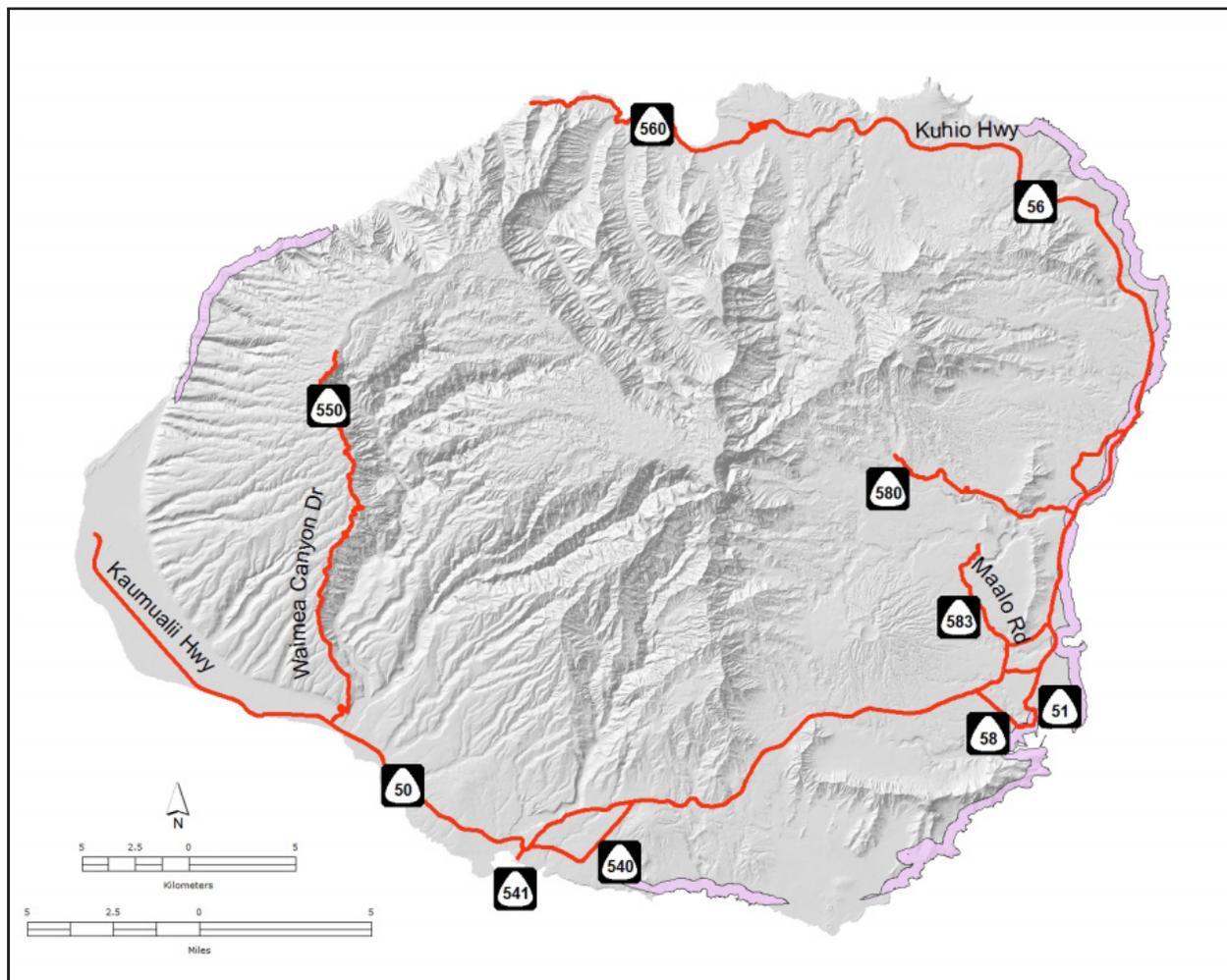
Ecological Planting Zones in Kauai County

2. Coastal Very Dry
 State of Hawaii Department of Transportation Roads

TABLE 2.3: ECOZONE 3 – COASTAL MODERATELY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Colubrina asiatica</i>	'ānapanapa	Indigenous	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'īlie'e	Indigenous	Ground cover
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover

*Indicates that the species is listed as federally and state endangered.



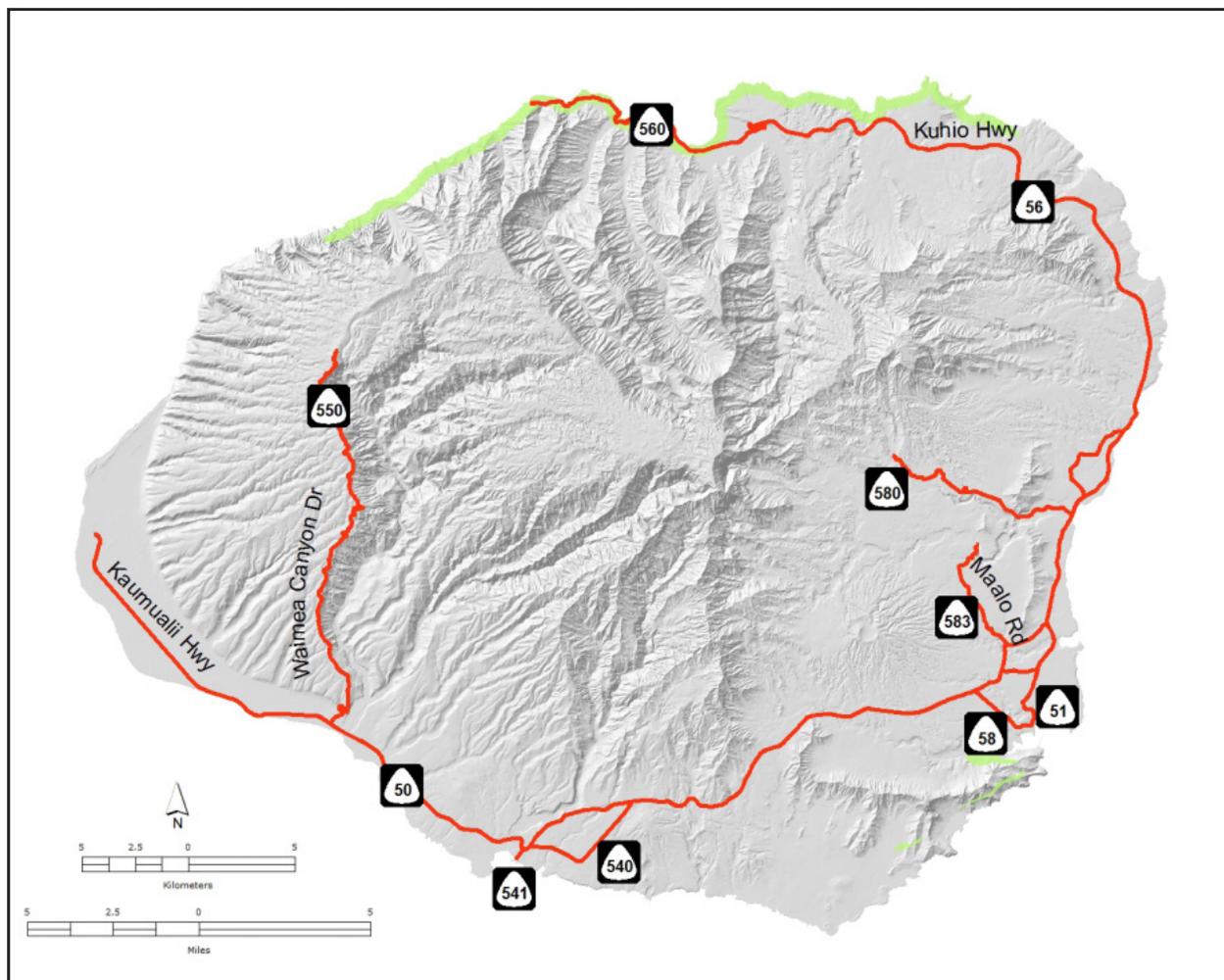
**Ecological Planting Zones
in Kauai County**

3. Coastal Moderately Dry
 State of Hawaii Department of Transportation Roads

TABLE 2.4: ECOZONE 4 – COASTAL MESIC

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Hibiscus clayi</i> *	–	Endemic	Shrub
<i>Hibiscus waimeae</i> *	koki'o ke'oke'o, koki'o kea	Endemic	Shrub
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'īlie'e	Indigenous	Ground cover
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub

*Indicates that the species is listed as federally and state endangered.



Ecological Planting Zones
in Kauai County

4. Coastal Mesic State of Hawaii Department of Transportation Roads

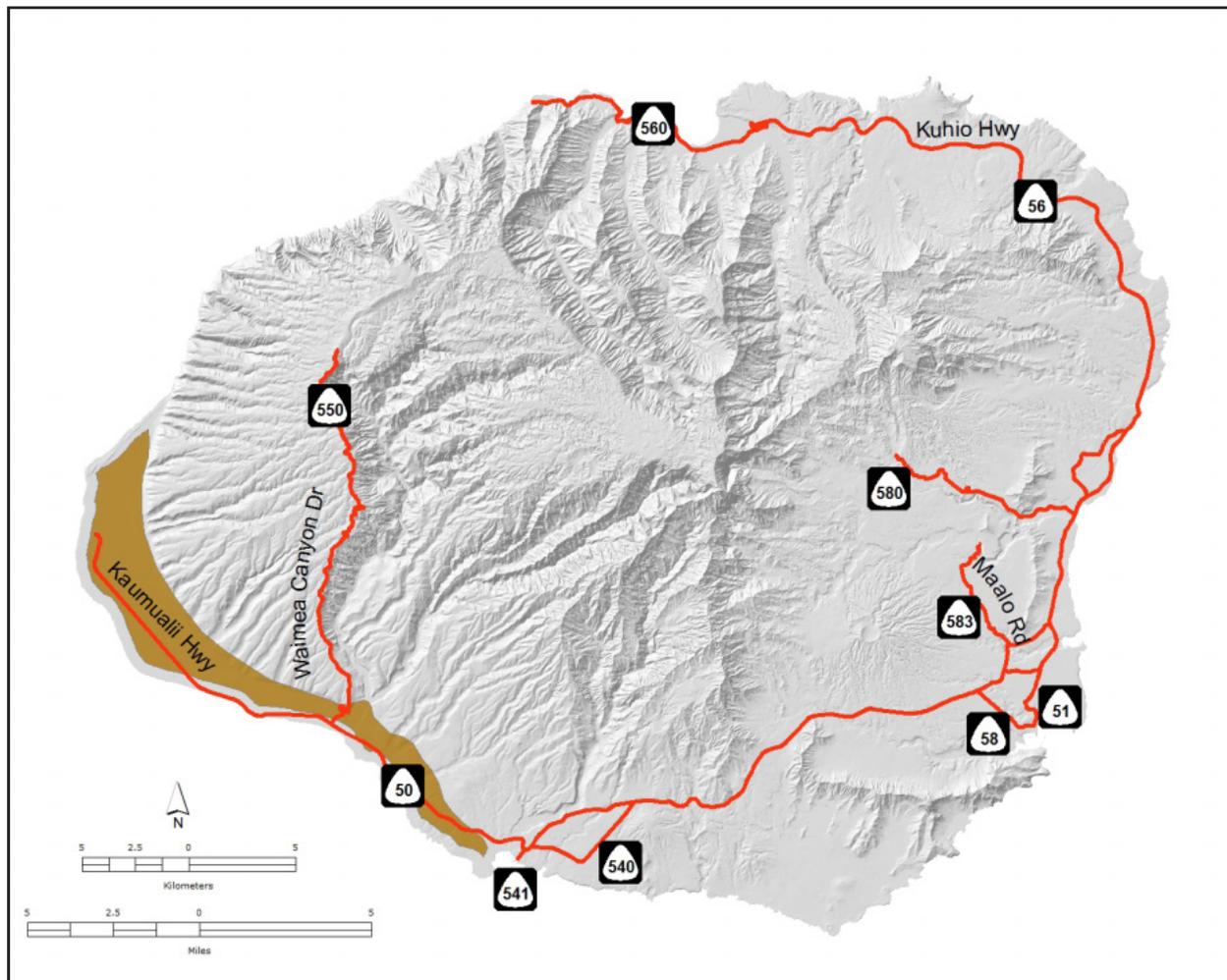
TABLE 2.5: ECOZONE 5 – COASTAL WET

This ecological zone does not occur in Kaua'i County.

TABLE 2.6: ECOZONE 6 – LOWLAND ARID

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Euphorbia celastroides</i> var. <i>celastroides</i>	'akoko	Endemic	Shrub
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub

*Indicates that the species is listed as federally and state endangered.



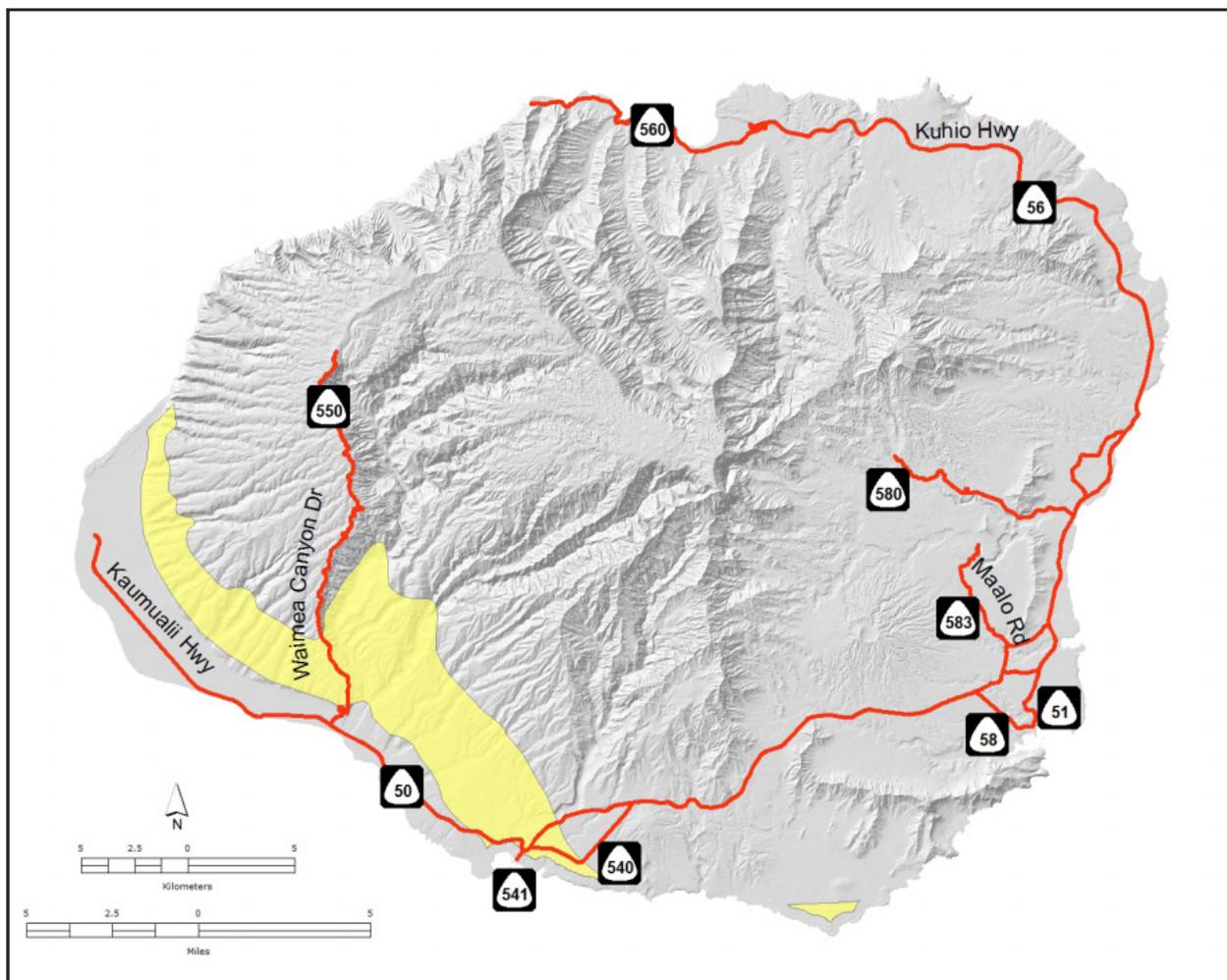
Ecological Planting Zones
in Kauai County

6. Lowland Arid State of Hawaii Department of Transportation Roads

TABLE 2.7: ECOZONE 7 – VERY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'īlie'e	Indigenous	Ground cover
<i>Psydrax odorata</i>	alaha'e	Indigenous	Tree
<i>Sapindus oahuensis</i>	lonomea, kaulu	Endemic	Tree
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub

*Indicates that the species is listed as federally and state endangered.



Ecological Planting Zones
in Kauai County

7. Very Dry
 State of Hawaii Department of Transportation Roads

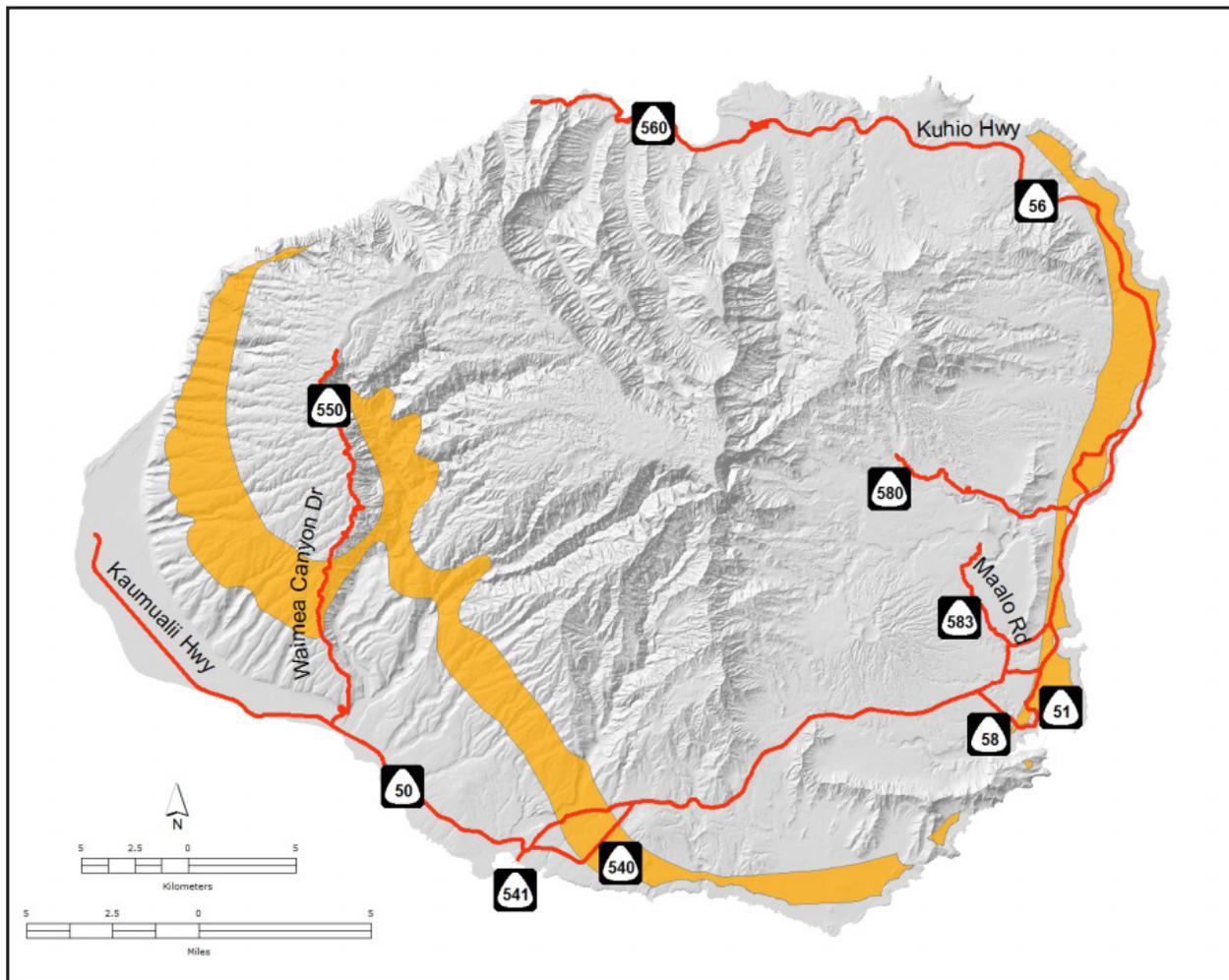
TABLE 2.8: ECOZONE 8 – MODERATELY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'i	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Polyscias racemosa</i> *	–	Endemic	Tree
<i>Psydrax odorata</i>	alahe'e	Indigenous	Tree
<i>Sapindus oahuensis</i>	lonomea, kaulu	Endemic	Tree
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover

*Indicates that the species is listed as federally and state endangered.

Leeward only:

<i>Acacia koaia</i>	koai'a	Endemic	Tree
<i>Charpentiera obovata</i>	pāpala	Endemic	Shrub / tree



Ecological Planting Zones
in Kauai County

8. Moderately Dry State of Hawaii Department of Transportation Roads

TABLE 2.9: ECOZONE 9 – MESIC

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Acacia koaia</i>	koai'a	Endemic	Tree
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Hibiscus clayi</i> *	–	Endemic	Shrub
<i>Hibiscus furcellatus</i>	'akiohala	Indigenous	Shrub
<i>Hibiscus waimeae</i> *	koki'o ke'oke'o, koki'o kea	Endemic	Tree
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'i	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Polyscias racemosa</i> *	–	Endemic	Tree
<i>Pritchardia napaliensis</i> **	loulou	Endemic	Tree
<i>Pritchardia remota</i> **†	loulou	Endemic	Tree
<i>Psydrax odorata</i>	alaha'e	Indigenous	Tree
<i>Scaevola gaudichaudiana</i>	naupaka kuahiwi	Endemic	Shrub

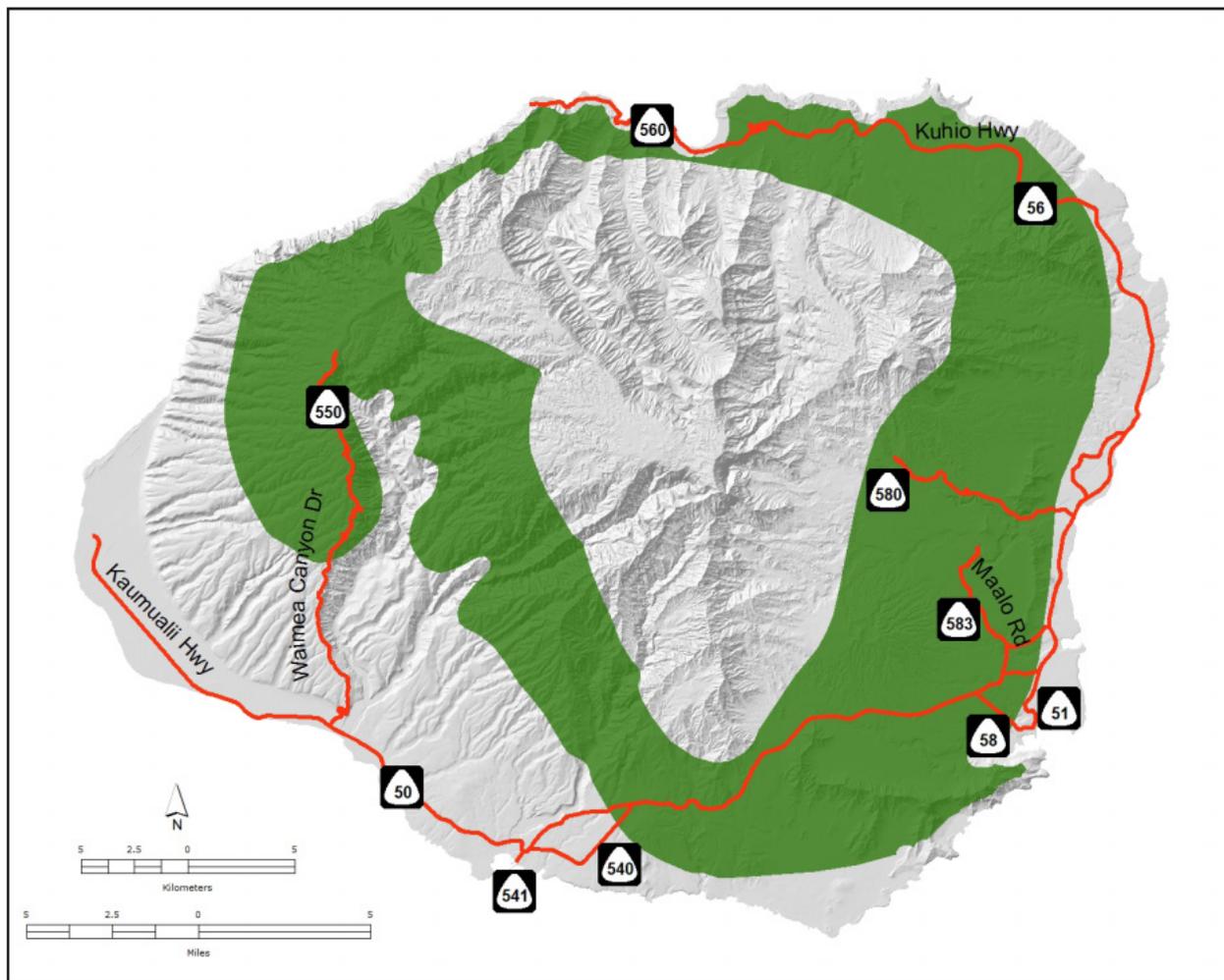
*Indicates that the species is listed as federally and state endangered. †Only recommended along Highway 50. ‡Only recommended along Highway 560.

Leeward only:

<i>Charpentiera obovata</i>	pāpala	Endemic	Shrub / tree
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Windward only:

<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Sapindus oahuensis</i>	lonomea, kaulu	Endemic	Tree



Ecological Planting Zones in Kauai County

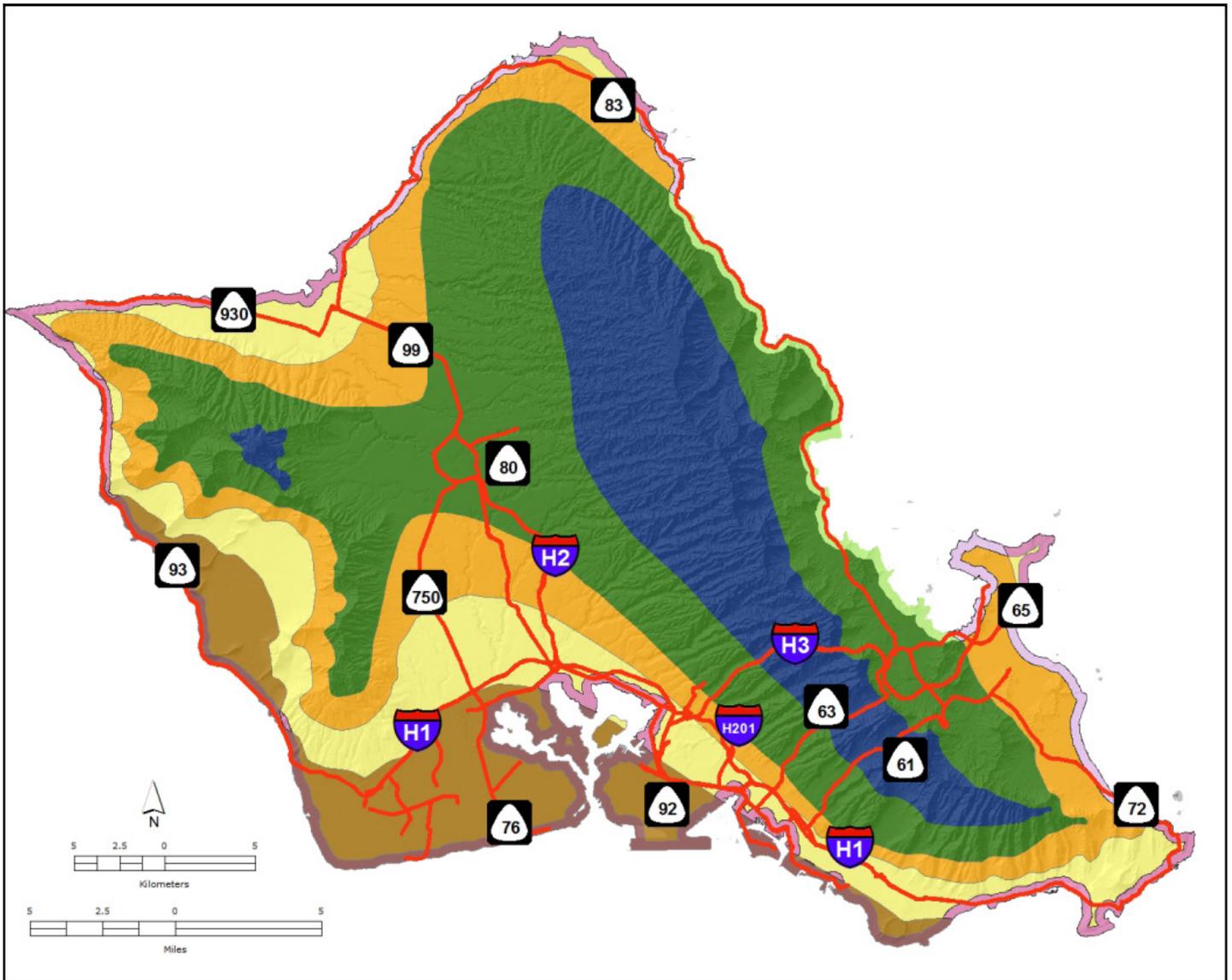
9. Mesic
 State of Hawaii Department of Transportation Roads

TABLE 2.10: ECOZONE 10 – WET

There are no HDOT roads within this ecological zone in Kaua'i County.

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CHAPTER 3. CITY AND COUNTY OF HONOLULU



**Ecological Planting Zones
in the City and County of Honolulu**

- | | | | | |
|---|---|---|---|--|
|  1. Coastal Arid |  3. Coastal Moderately Dry |  5. Coastal Wet |  7. Very Dry |  9. Mesic |
|  2. Coastal Very Dry |  4. Coastal Mesic |  6. Lowland Arid |  8. Moderately Dry |  10. Wet |
-  State of Hawaii Department of Transportation Roads

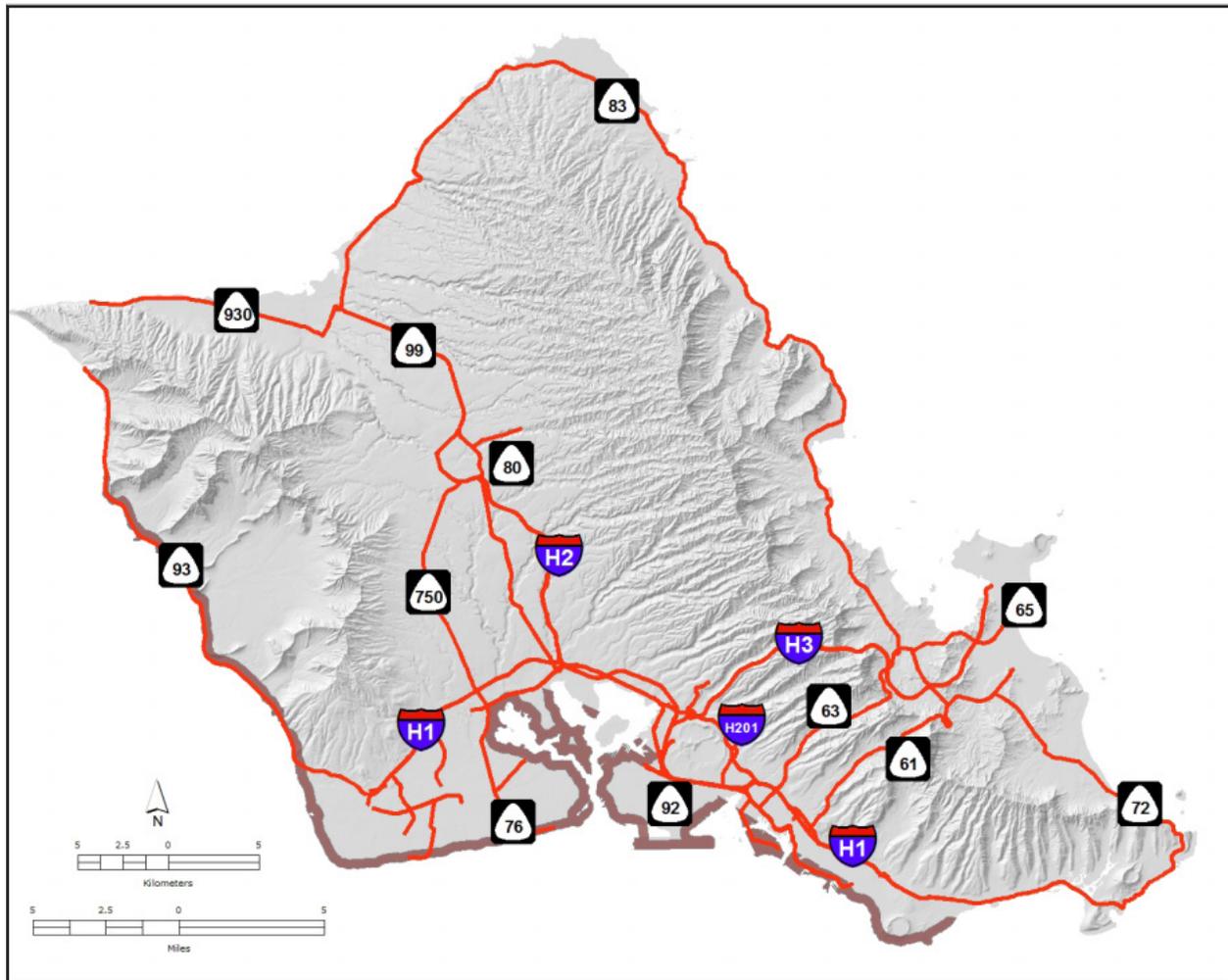
Figure 3.1. City and County of Honolulu Ecological Zones

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TABLE 3.1: ECOZONE 1 – COASTAL ARID

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cenchrus agrimonioides</i> var. <i>agrimonioides</i>	kāmanomano	Endemic	Grass
<i>Colubrina asiatica</i>	'ānapanapa	Indigenous	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'i	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub

*Indicates that the species is listed as federally and state endangered.



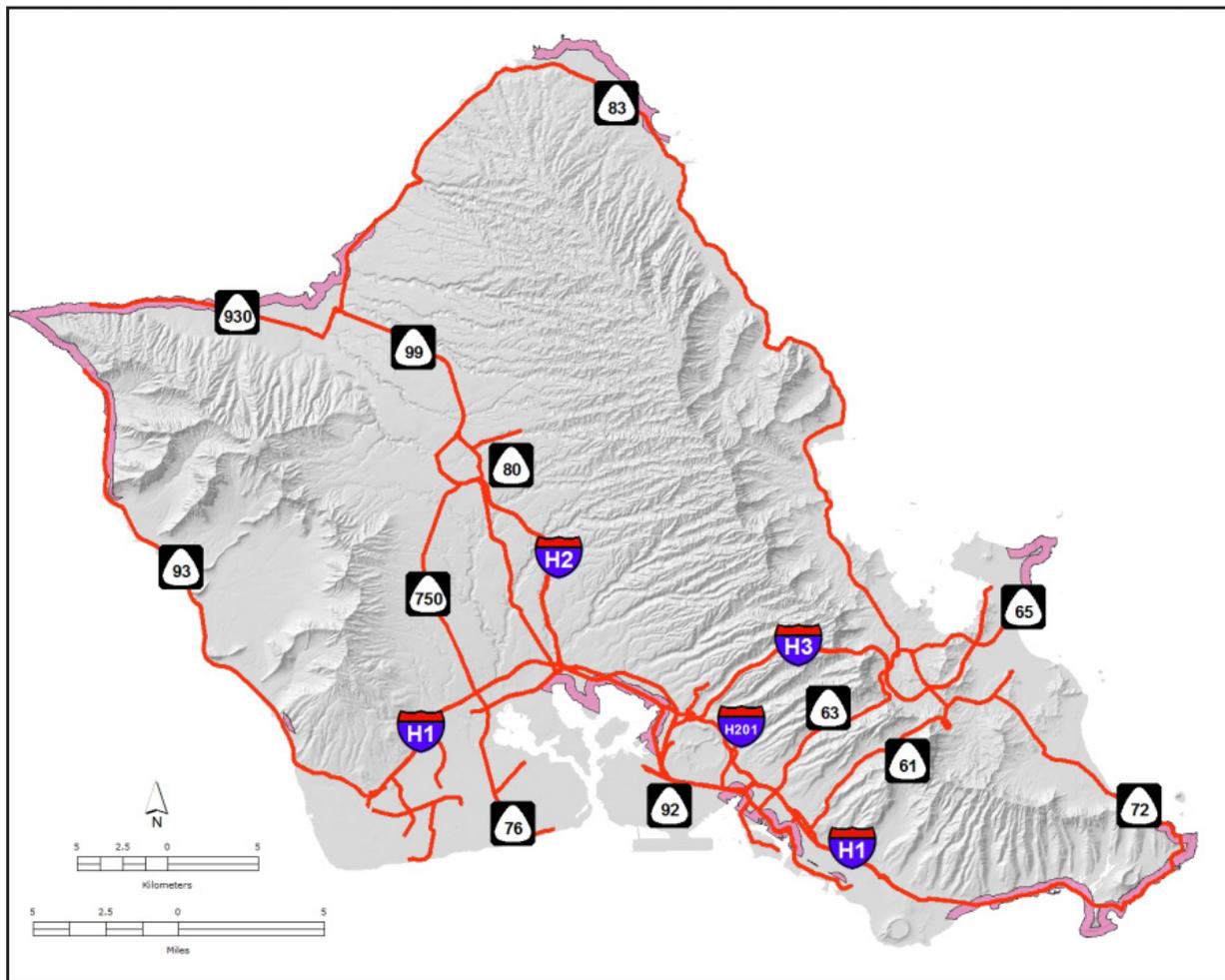
Ecological Planting Zones
in the City and County of Honolulu

1. Coastal Arid State of Hawaii Department of Transportation Roads

TABLE 3.2: ECOZONE 2 – COASTAL VERY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cenchrus agrimonioides</i> var. <i>agrimonioides</i>	kāmanomano	Endemic	Grass
<i>Colubrina asiatica</i>	'ānapanapa	Indigenous	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover

*Indicates that the species is listed as federally and state endangered.



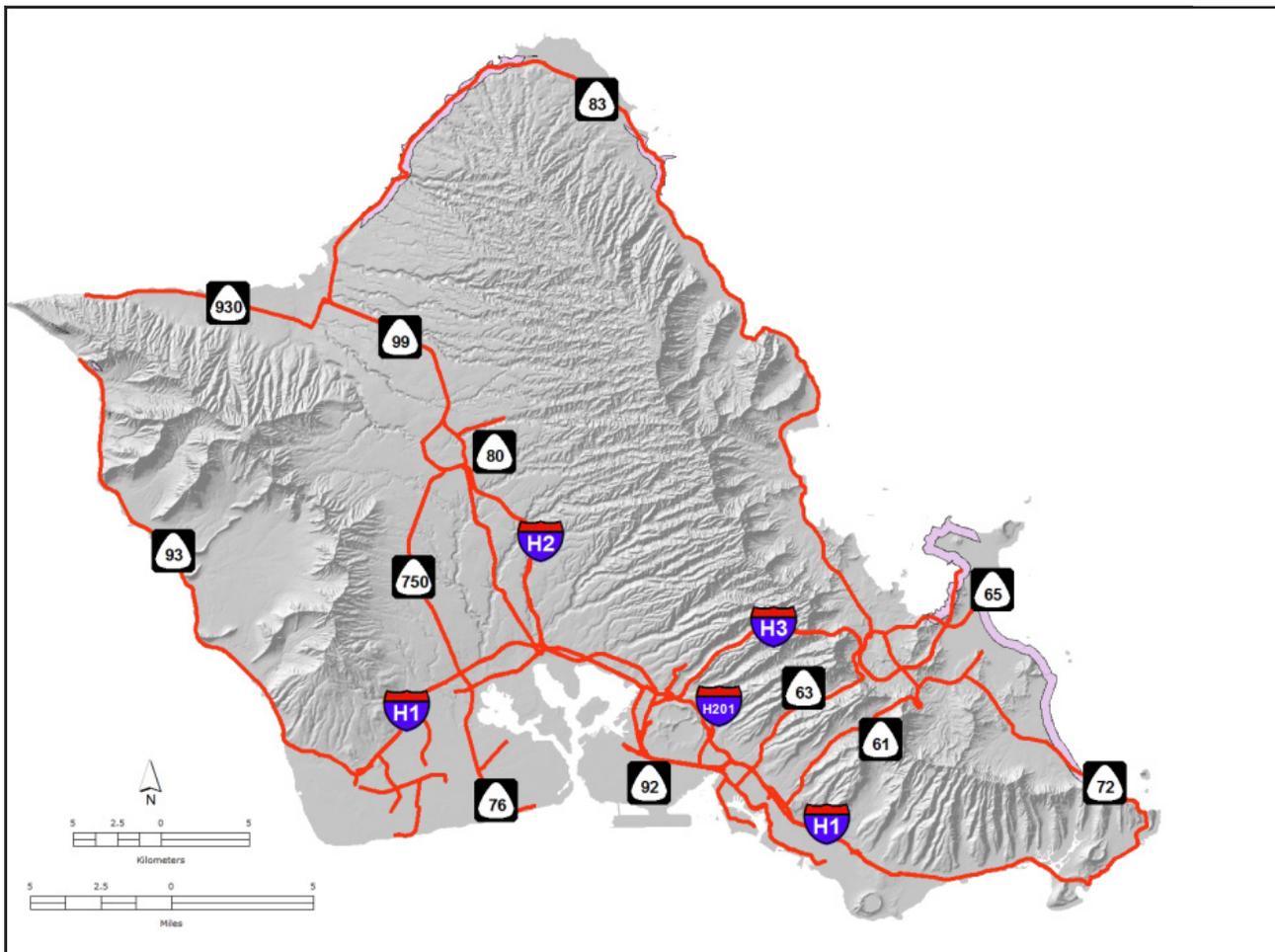
Ecological Planting Zones
in the City and County of Honolulu

2. Coastal Very Dry
 State of Hawaii Department of Transportation Roads

TABLE 3.3: ECOZONE 3 – COASTAL MODERATELY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Cenchrus agrimonoides</i> var. <i>agrimonioides</i>	kāmanomano	Endemic	Grass
<i>Colubrina asiatica</i>	'ānapanapa	Indigenous	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Cyperus javanicus</i>	'ahu'awa	Indigenous	Ground cover
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilīe'e	Indigenous	Ground cover
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover

*Indicates that the species is listed as federally and state endangered.

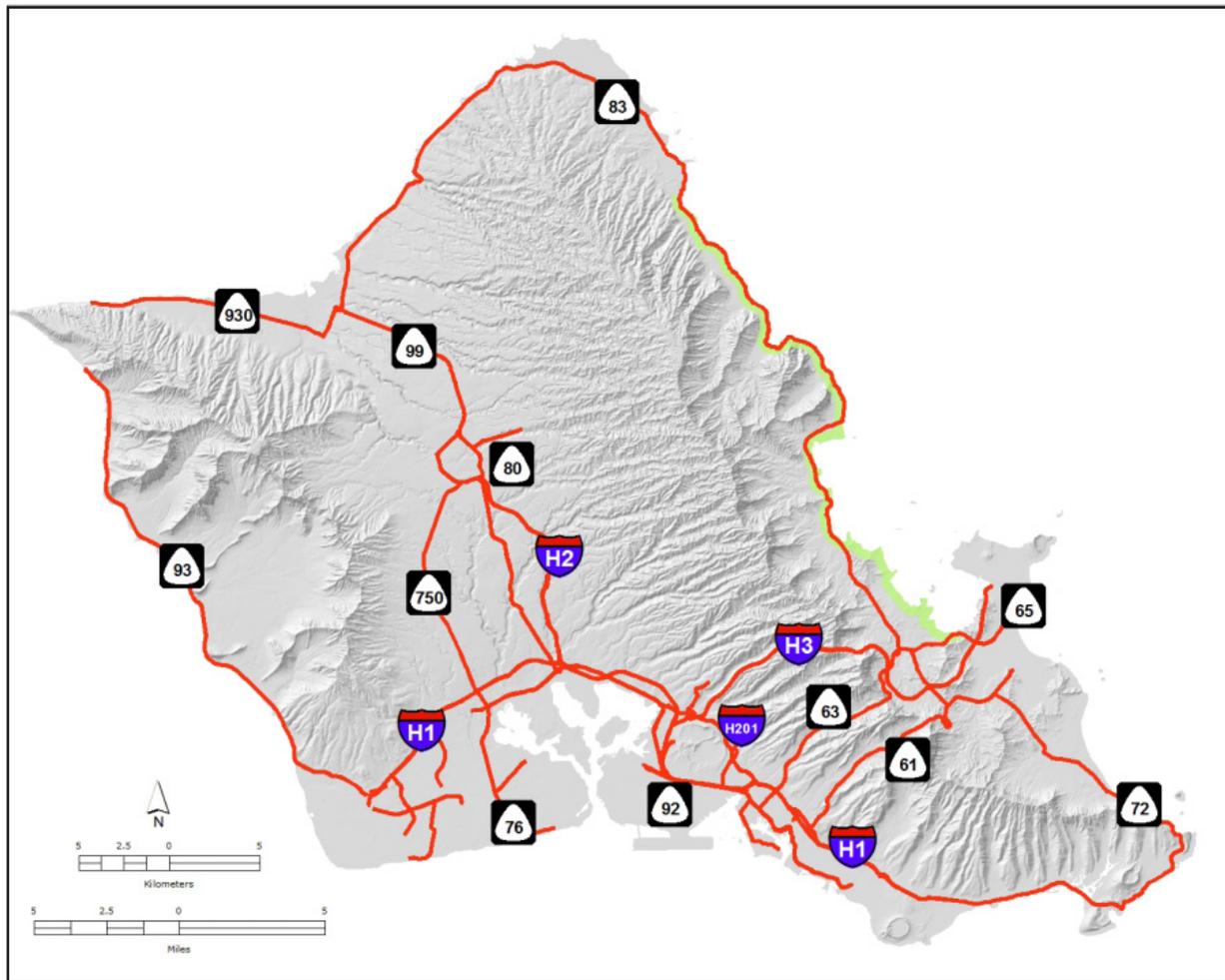


Ecological Planting Zones
in the City and County of Honolulu

3. Coastal Moderately Dry State of Hawaii Department of Transportation Roads

TABLE 3.4: ECOZONE 4 – COASTAL MESIC

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Cenchrus agrimonioides</i> var. <i>agrimonioides</i>	kāmanomano	Endemic	Grass
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Cyperus javanicus</i>	'ahu'awa	Indigenous	Ground cover
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub



**Ecological Planting Zones
in the City and County of Honolulu**

4. Coastal Mesic State of Hawaii Department of Transportation Roads

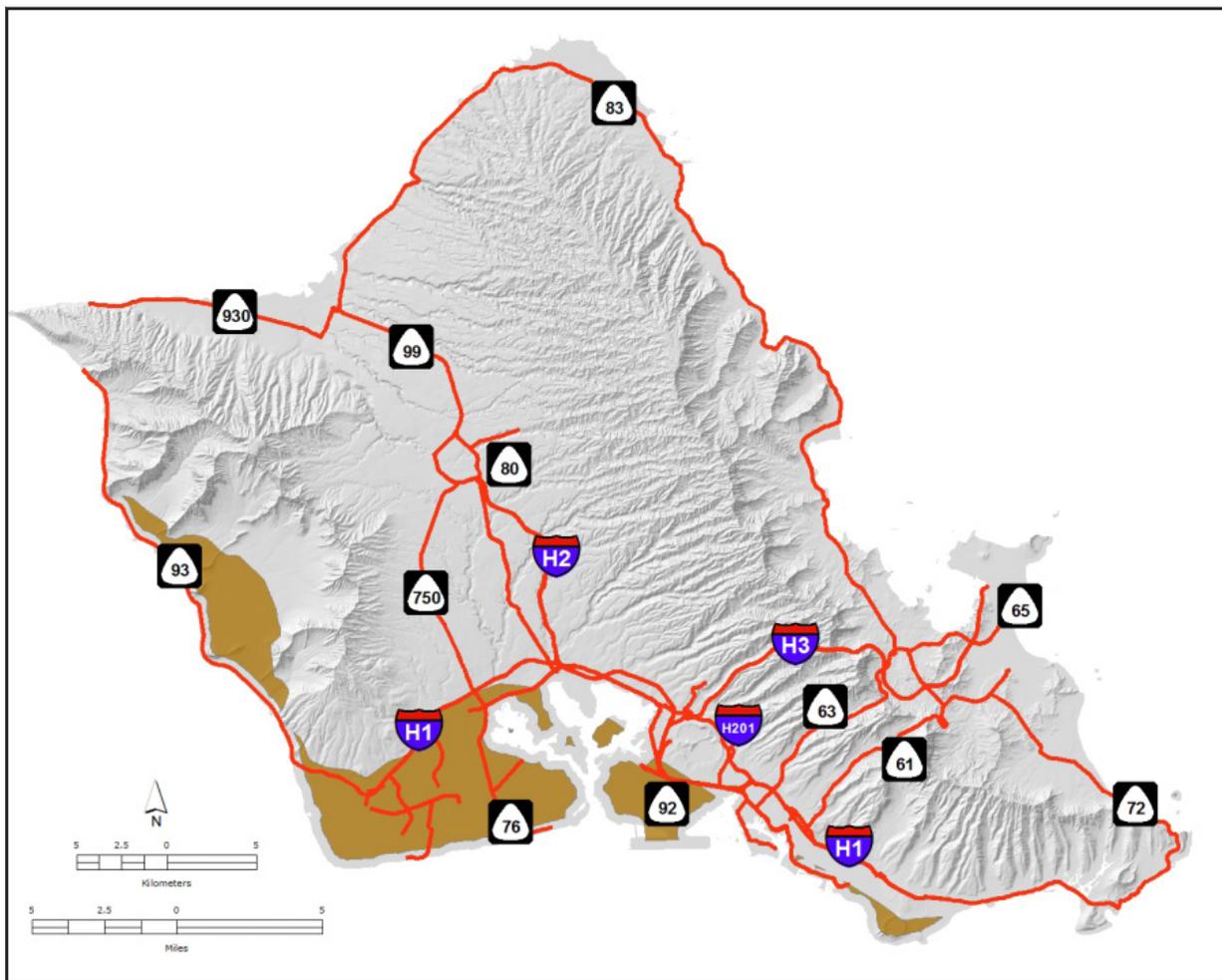
TABLE 3.5: ECOZONE 5 – COASTAL WET

This ecological zone does not occur in the City and County of Honolulu.

TABLE 3.6: ECOZONE 6 – LOWLAND ARID

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cenchrus agrimonioides</i> var. <i>agrimonioides</i>	kāmanomano	Endemic	Grass
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
West of Highway 750 only:			
<i>Pritchardia kaalae</i> *	loulu	Endemic	Tree
East of H2 only:			
<i>Pritchardia martii</i>	loulu	Endemic	Tree

*Indicates that the species is listed as federally and state endangered.



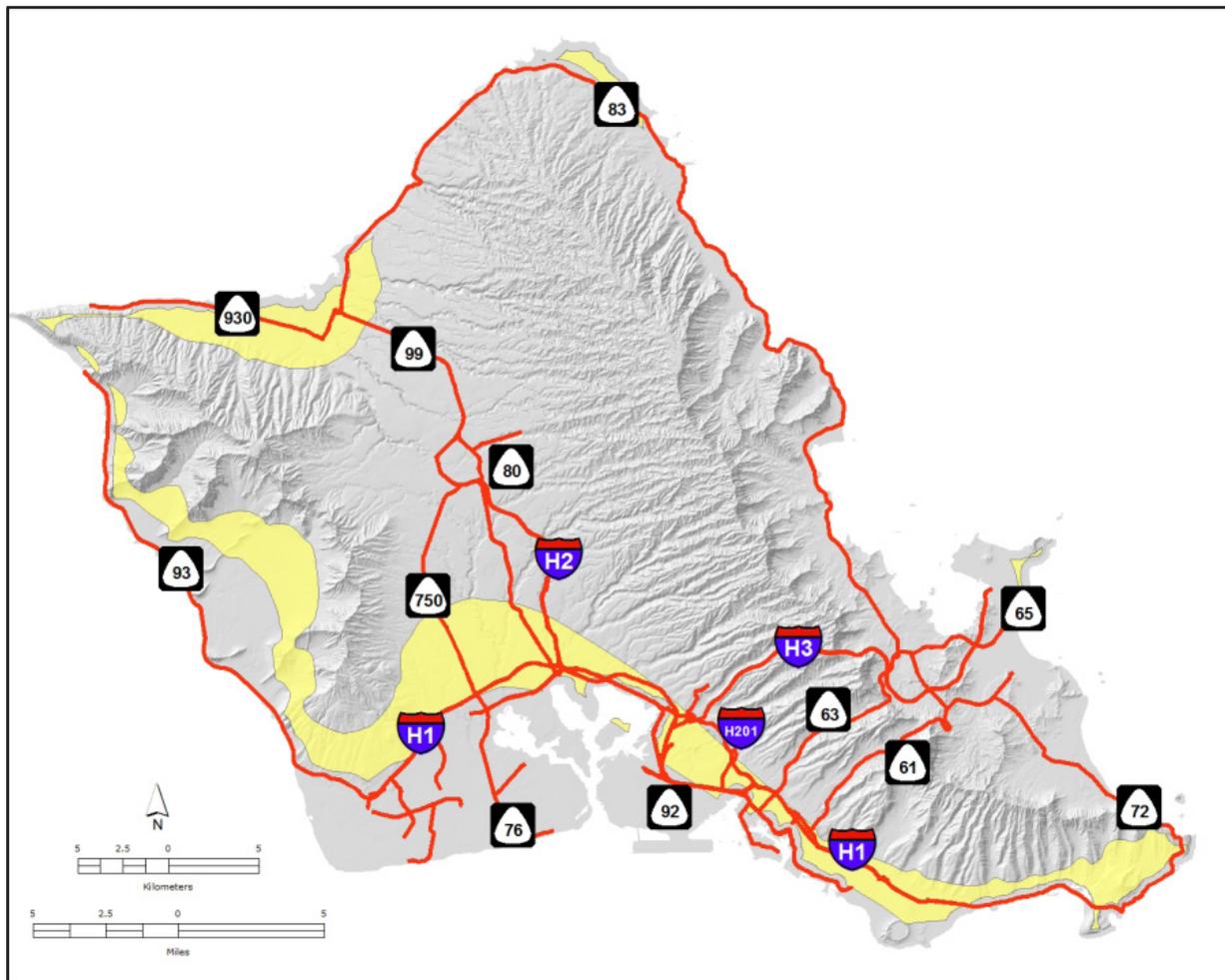
**Ecological Planting Zones
in the City and County of Honolulu**

6. Lowland Arid State of Hawaii Department of Transportation Roads

TABLE 3.7: ECOZONE 7 – VERY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cenchrus agrimonioides</i> var. <i>agrimonioides</i>	kāmanomano	Endemic	Grass
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kuluʻī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ili'e'e	Indigenous	Ground cover
<i>Psyrax odorata</i>	alahe'e	Indigenous	Tree
<i>Sapindus oahuensis</i>	lonomea, kaulu	Endemic	Tree
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
West of Highway 750 only:			
<i>Pritchardia kaalae</i> *	loulou	Endemic	Tree
East of H2 only:			
<i>Pritchardia martii</i>	loulou	Endemic	Tree

*Indicates that the species is listed as federally and state endangered.



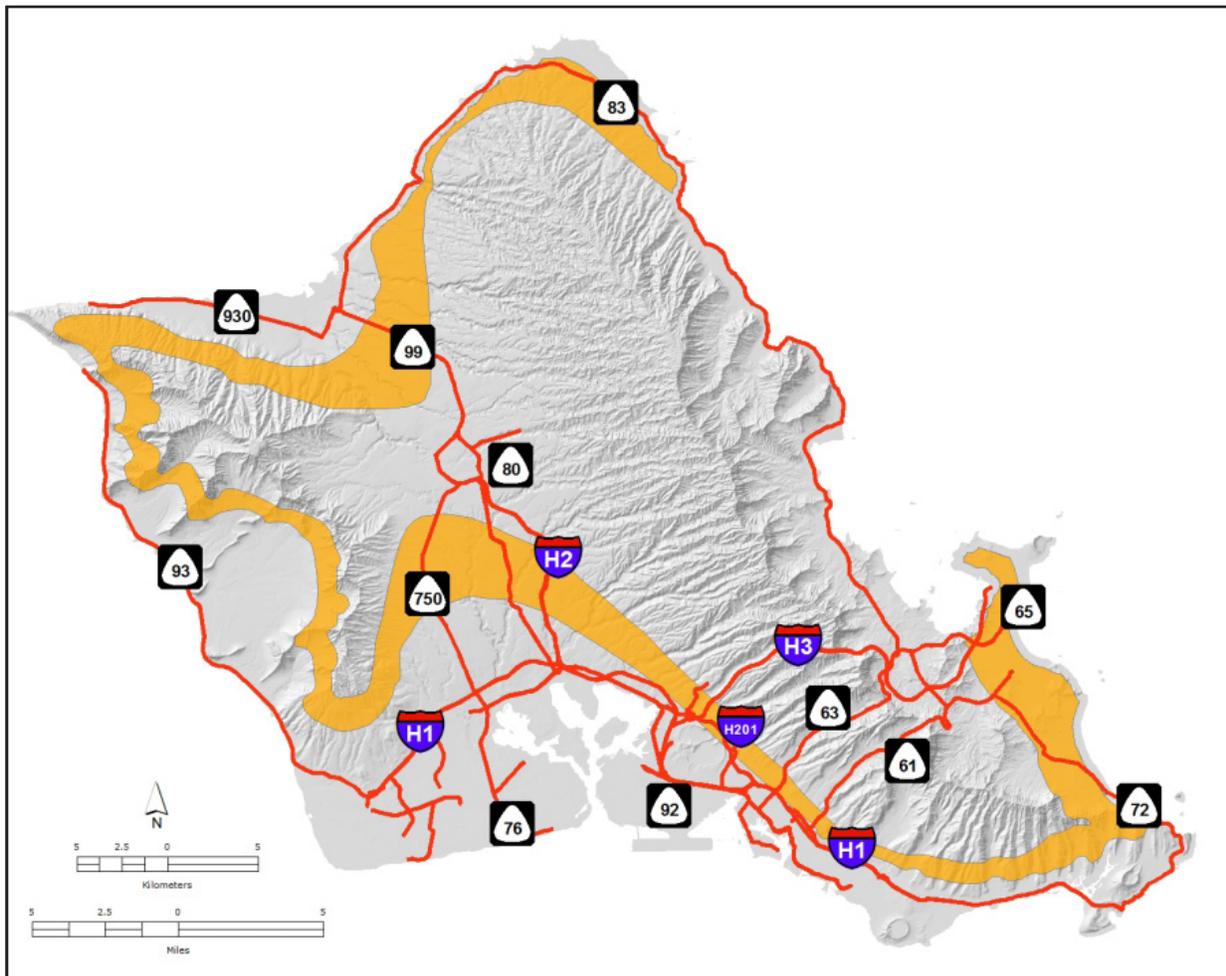
**Ecological Planting Zones
in the City and County of Honolulu**

7. Very Dry
 State of Hawaii Department of Transportation Roads

TABLE 3.8: ECOZONE 8 – MODERATELY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Psyrax odorata</i>	alahe'e	Indigenous	Tree
<i>Sapindus oahuensis</i>	lonomea, kaulu	Endemic	Tree
<i>Sesbania tomentosa*</i>	'ohai	Endemic	Shrub
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover
Leeward only:			
<i>Charpentiera obovata</i>	pāpala	Endemic	Shrub / tree
West of Highway 750 only:			
<i>Pritchardia kaalae*</i>	loulu	Endemic	Tree
East of H2 only:			
<i>Pritchardia martii</i>	loulu	Endemic	Tree

*Indicates that the species is listed as federally and state endangered.

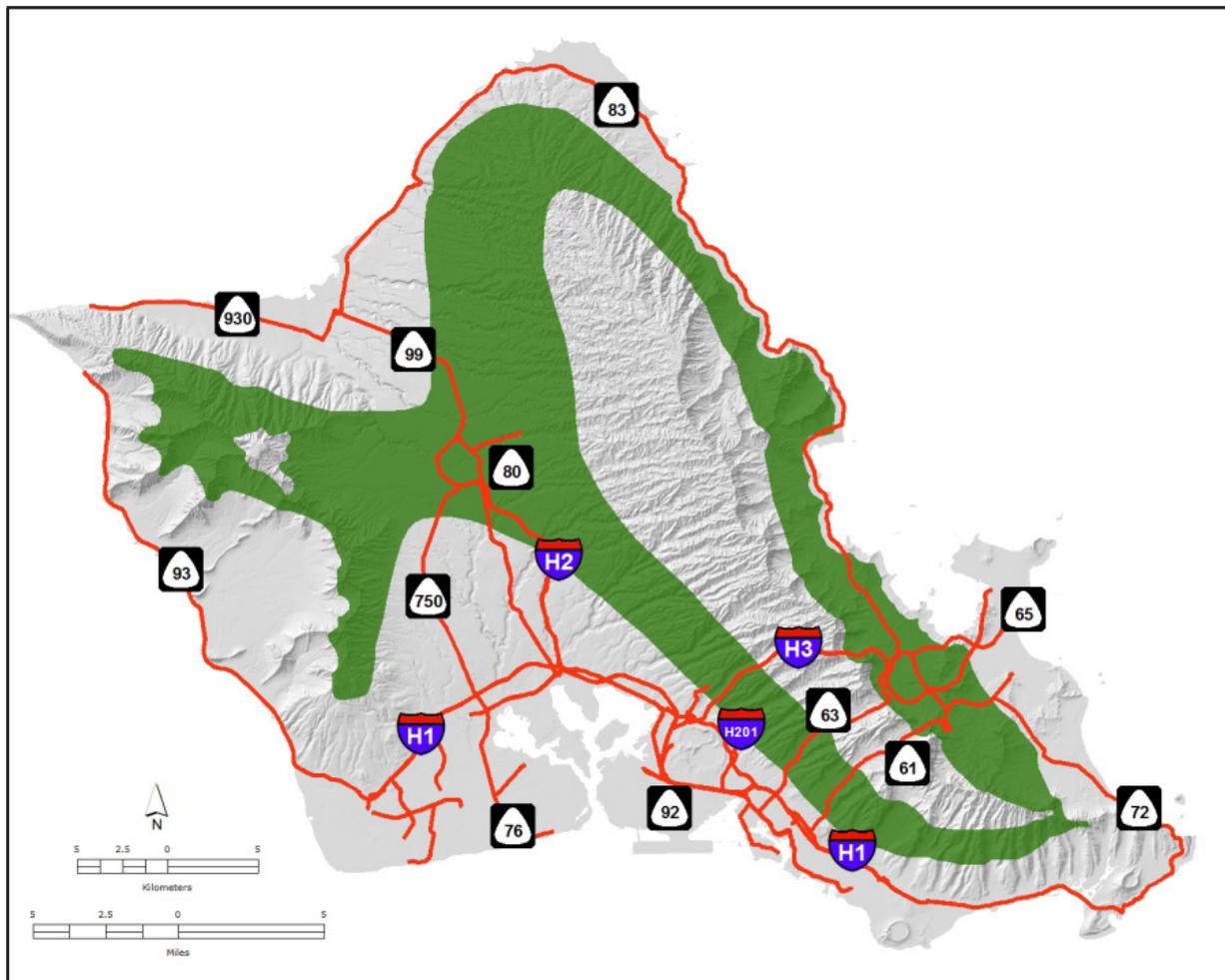


**Ecological Planting Zones
in the City and County of Honolulu**

8. Moderately Dry
 State of Hawaii Department of Transportation Roads

TABLE 3.9: ECOZONE 9 – MESIC

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Euphorbia celastroides</i> var. <i>amplectens</i>	'akoko	Endemic	Shrub
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Psydrax odorata</i>	alaha'e	Indigenous	Tree
<i>Sapindus oahuensis</i>	lonomea, kaulu	Endemic	Tree
<i>Scaevola gaudichaudiana</i>	naupaka kuahiwi	Endemic	Shrub
Leeward only:			
<i>Charpentiera obovata</i>	pāpala	Endemic	Shrub / tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover
East of H2 only:			
<i>Pritchardia martii</i>	loulu	Endemic	Tree

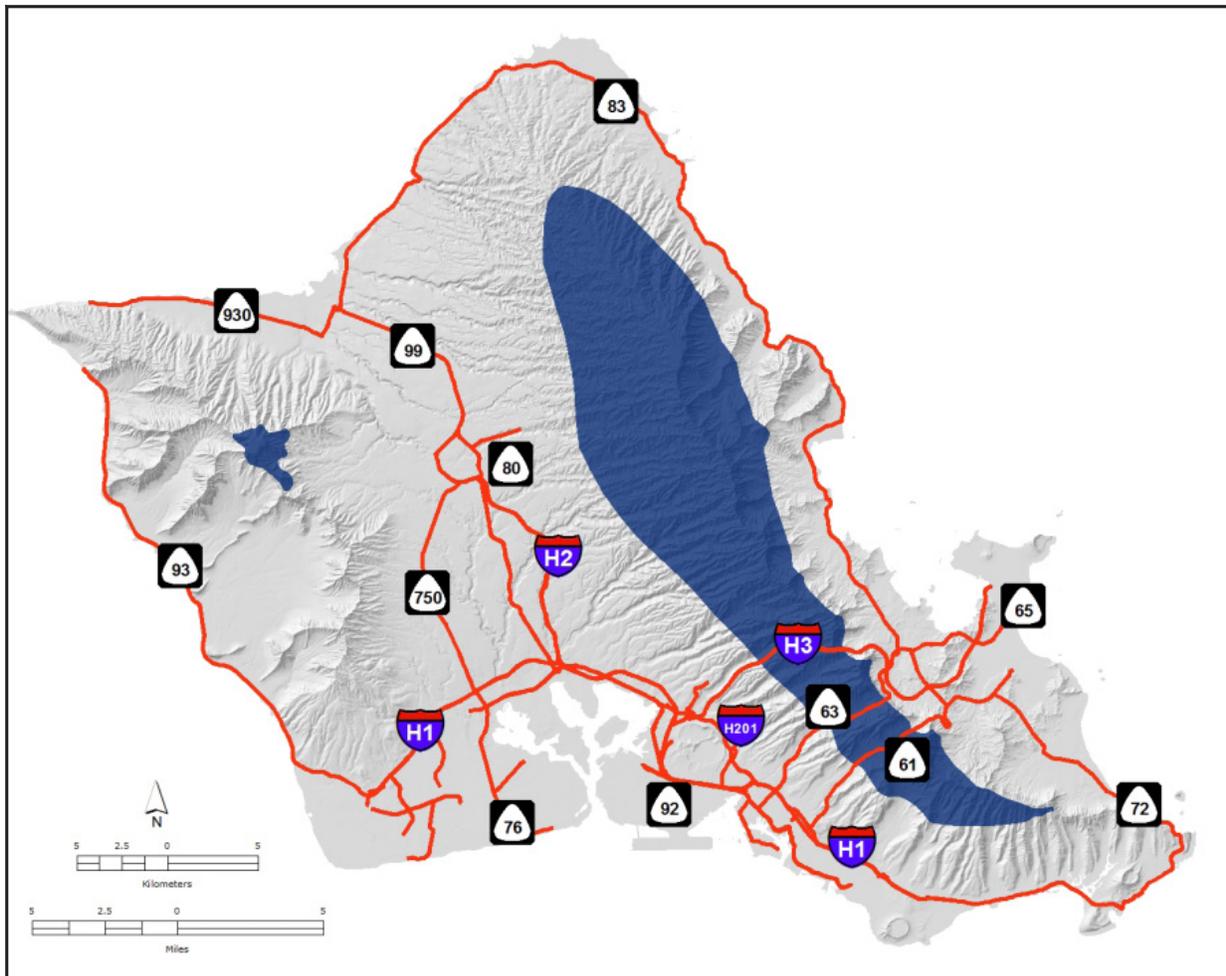


Ecological Planting Zones in the City and County of Honolulu

9. Mesic
 State of Hawaii Department of Transportation Roads

TABLE 3.10: ECOZONE 10 – WET

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Metrosideros polymorpha</i>	'ōhi'a	Endemic	Tree
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala / screwpine	Indigenous	Tree
<i>Scaevola gaudichaudiana</i>	naupaka kuahiwi	Endemic	Shrub
East of H2 only:			
<i>Pritchardia martii</i>	loulu	Endemic	Tree

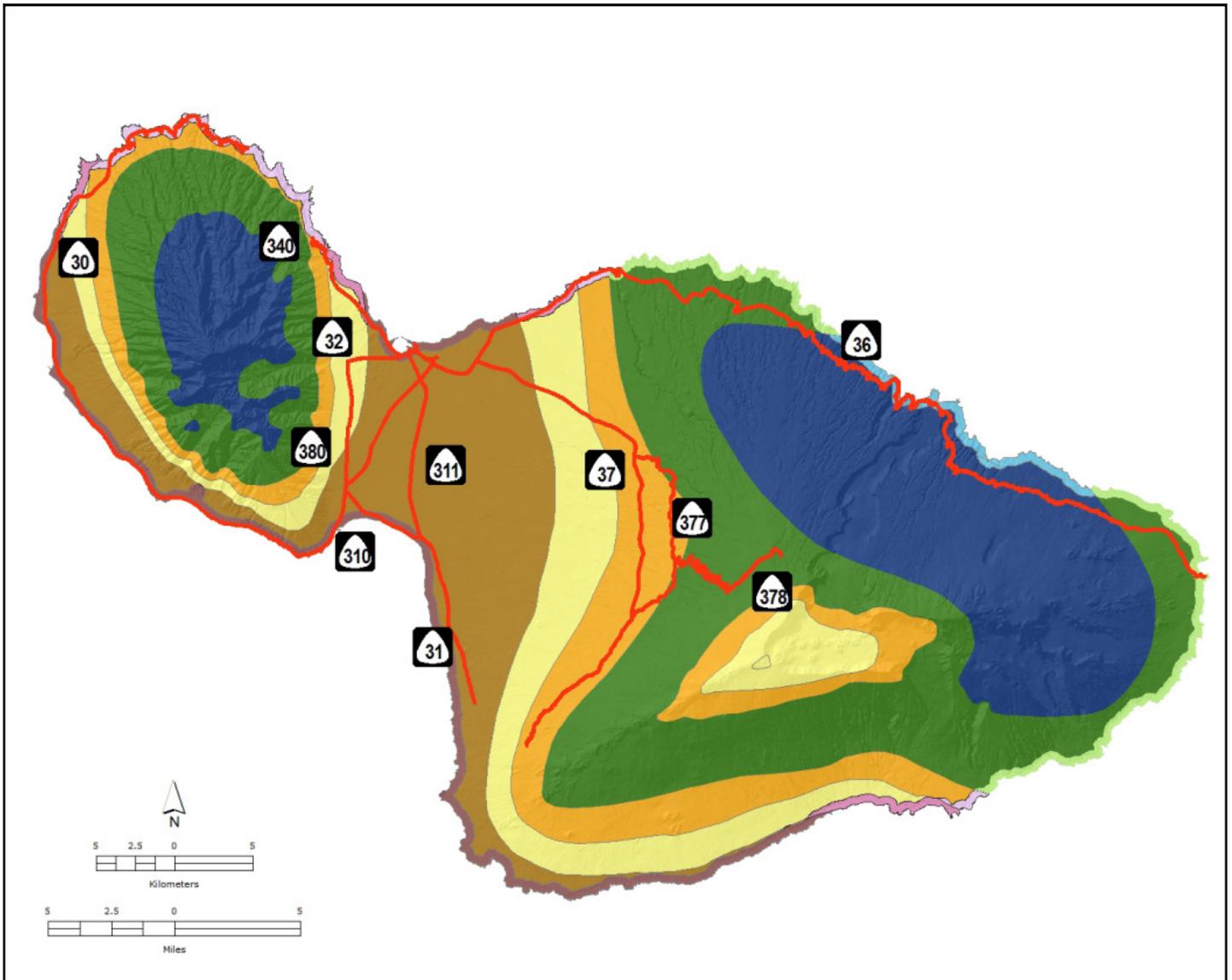


Ecological Planting Zones
in the City and County of Honolulu

10. Wet
 State of Hawaii Department of Transportation Roads

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CHAPTER 4. MAUI COUNTY



**Ecological Planting Zones
in Maui County (Maui Island)**

- | | | | | |
|---|---|---|---|--|
|  1. Coastal Arid |  3. Coastal Moderately Dry |  5. Coastal Wet |  7. Very Dry |  9. Mesic |
|  2. Coastal Very Dry |  4. Coastal Mesic |  6. Lowland Arid |  8. Moderately Dry |  10. Wet |
-  State of Hawaii Department of Transportation Roads

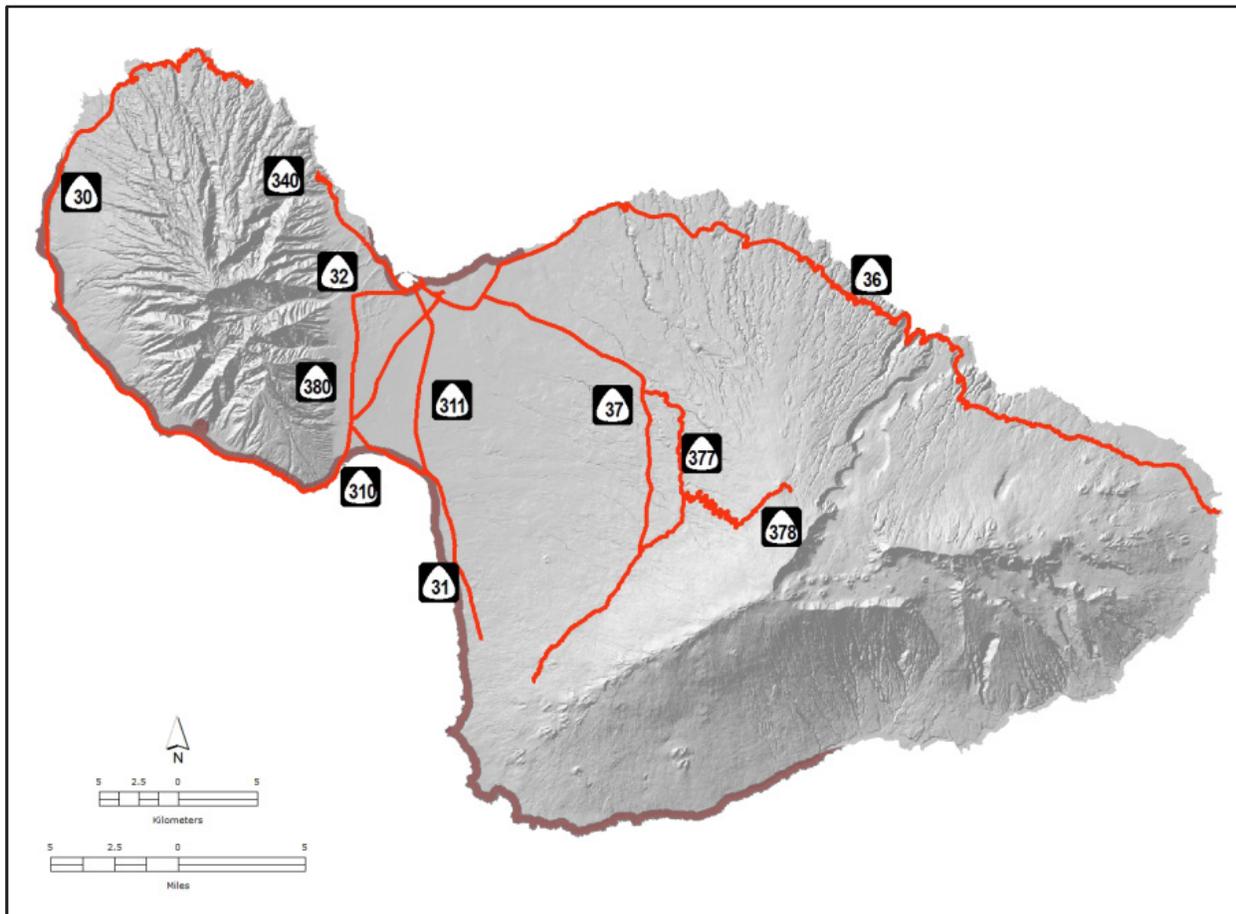
Figure 4.1. Maui Island Ecological Zones

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TABLE 4.1: ECOZONE 1 – COASTAL ARID

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'i	Endemic	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub

*Indicates that the species is listed as federally and state endangered.



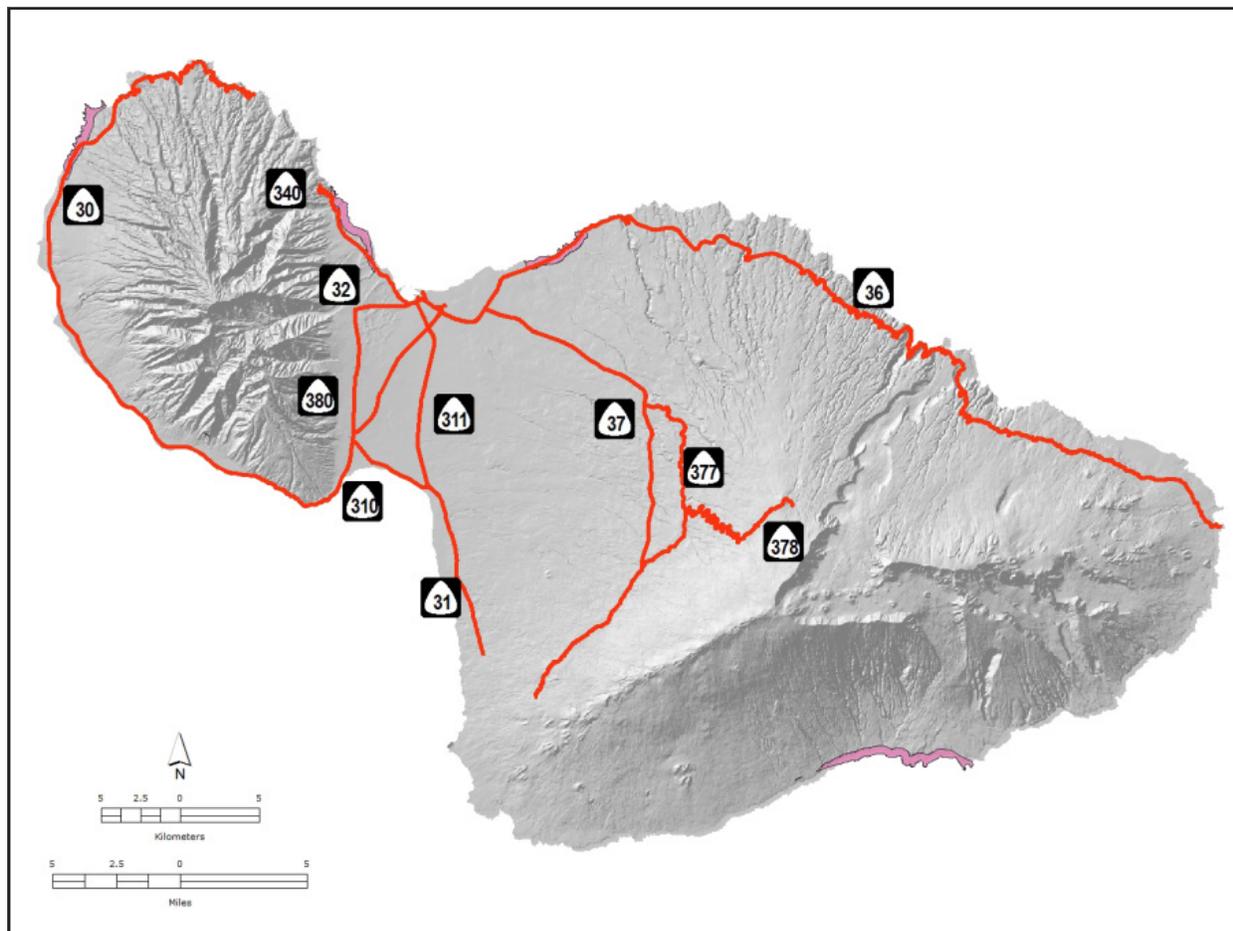
Ecological Planting Zones
in Maui County (Maui Island)

1. Coastal Arid State of Hawaii Department of Transportation Roads

TABLE 4.2: ECOZONE 2 – COASTAL VERY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Colubrina asiatica</i>	'ānapanapa	Indigenous	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'Ō	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Psydrax odorata</i>	alaha'e	Indigenous	Tree
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover

*Indicates that the species is listed as federally and state endangered.



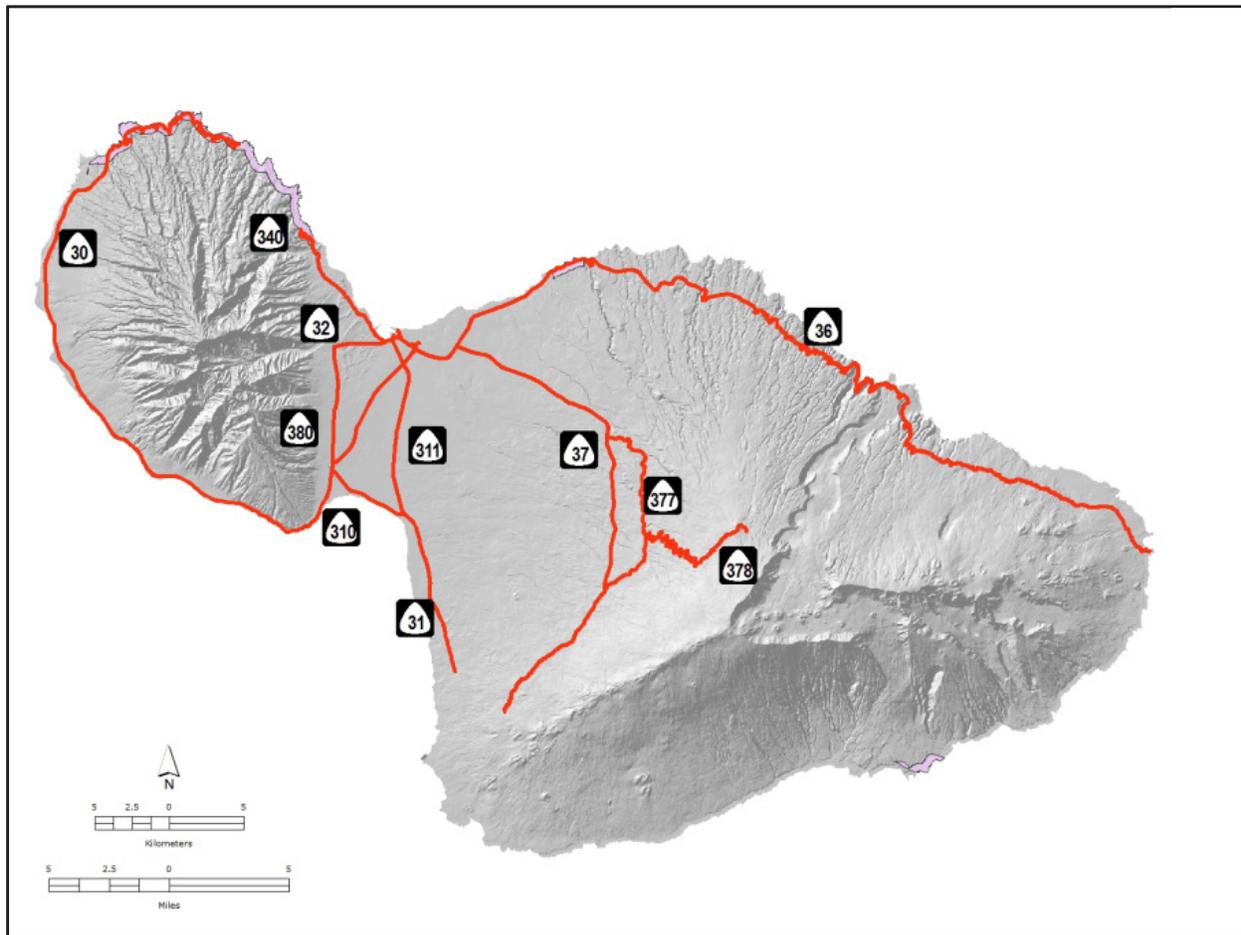
**Ecological Planting Zones
in Maui County (Maui Island)**

2. Coastal Very Dry
 State of Hawaii Department of Transportation Roads

TABLE 4.3: ECOZONE 3 – COASTAL MODERATELY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Colubrina asiatica</i>	'ānapanapa	Indigenous	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'i	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Psydrax odorata</i>	alaha'e	Indigenous	Tree
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover

*Indicates that the species is listed as federally and state endangered.

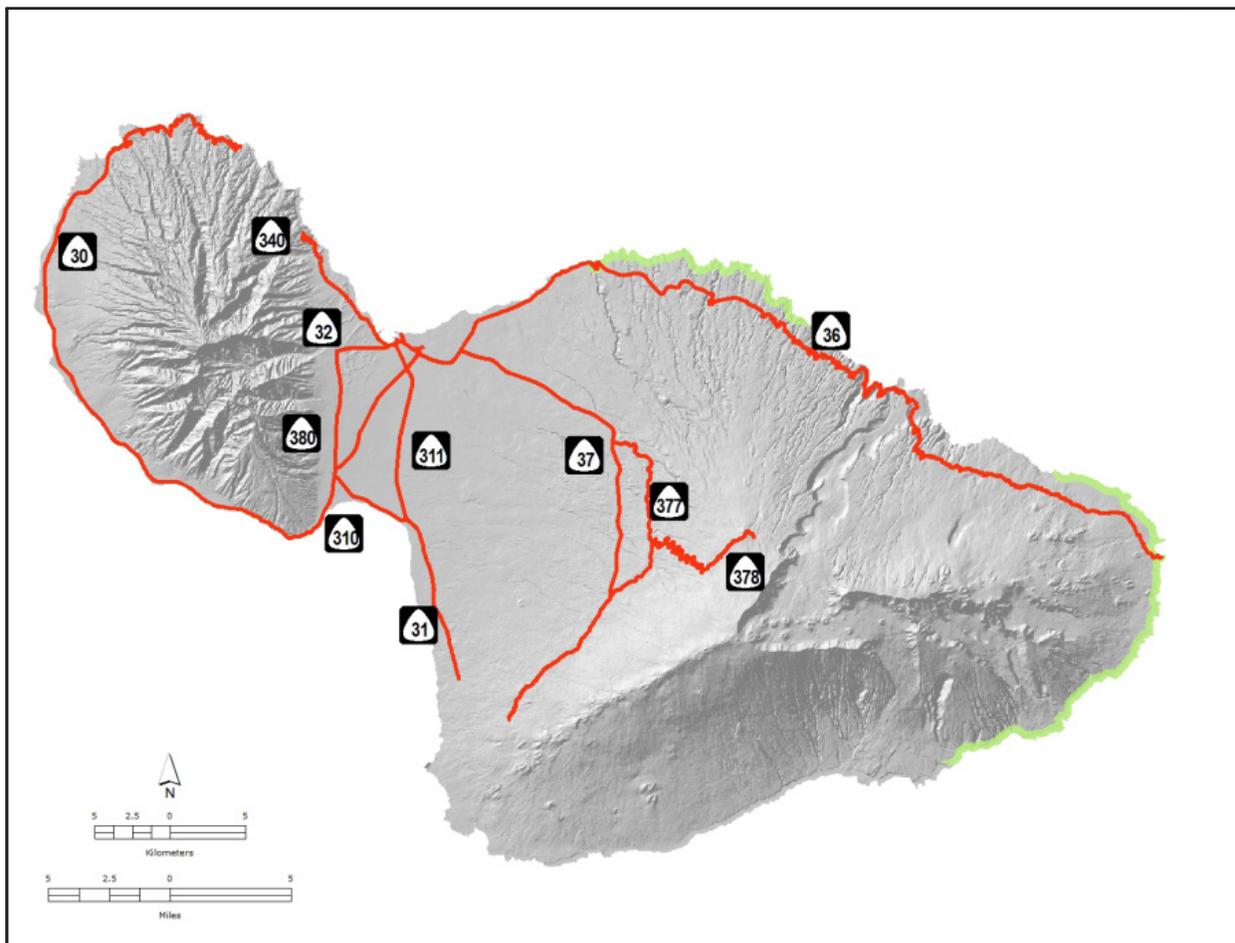


**Ecological Planting Zones
in Maui County (Maui Island)**

- 3. Coastal Moderately Dry
- State of Hawaii Department of Transportation Roads

TABLE 4.4: ECOZONE 4 – COASTAL MESIC

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Cenchrus agrimonioides</i> var. <i>agrimonioides</i>	kāmanomano	Endemic	Grass
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Cyperus javanicus</i>	'ahu'awa	Indigenous	Ground cover
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Psydax odorata</i>	alahe'e	Indigenous	Tree
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub

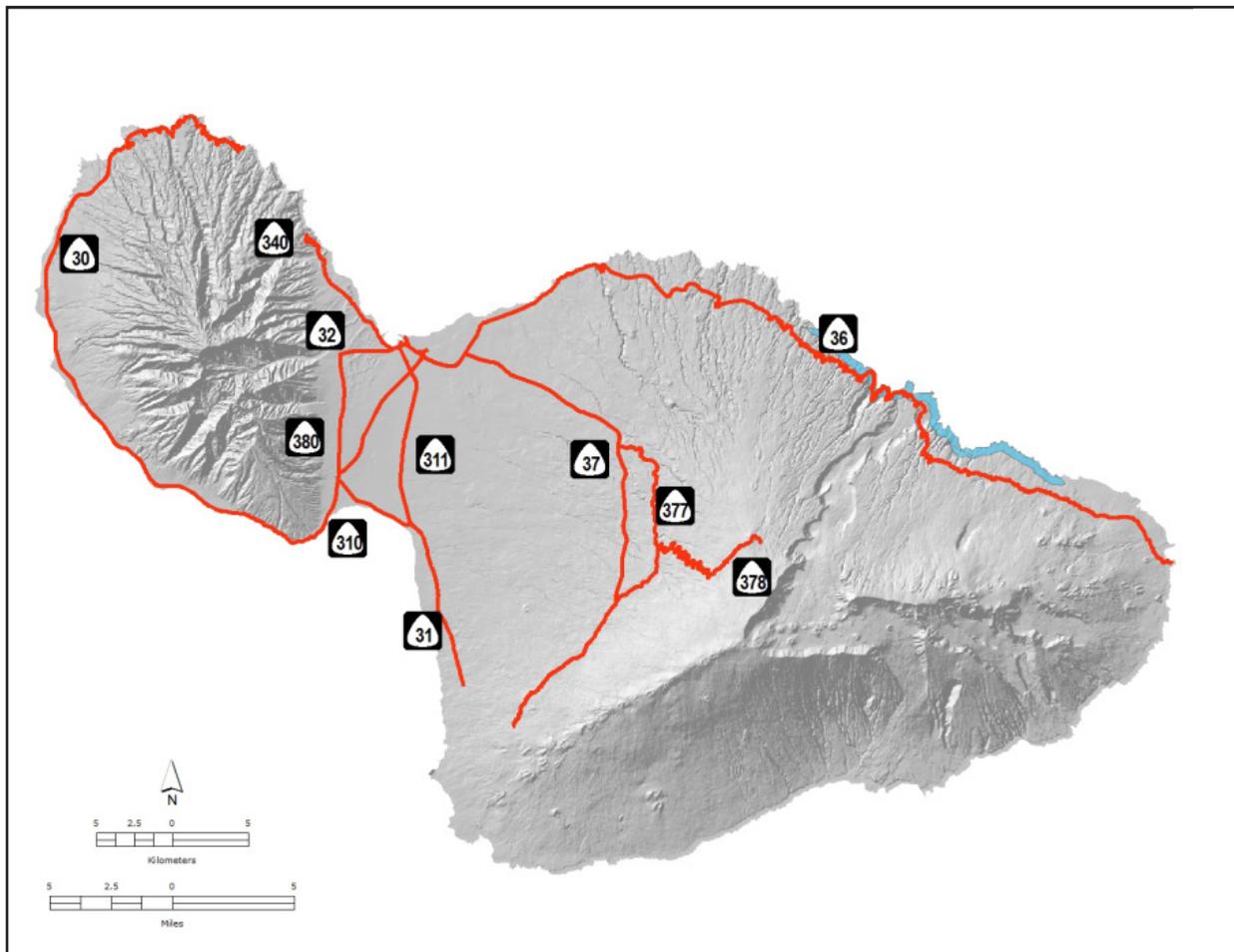


Ecological Planting Zones in Maui County (Maui Island)

4. Coastal Mesic State of Hawaii Department of Transportation Roads

TABLE 4.5: ECOZONE 5 – COASTAL WET

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Cyperus javanicus</i>	'ahu'awa	Indigenous	Ground cover
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub



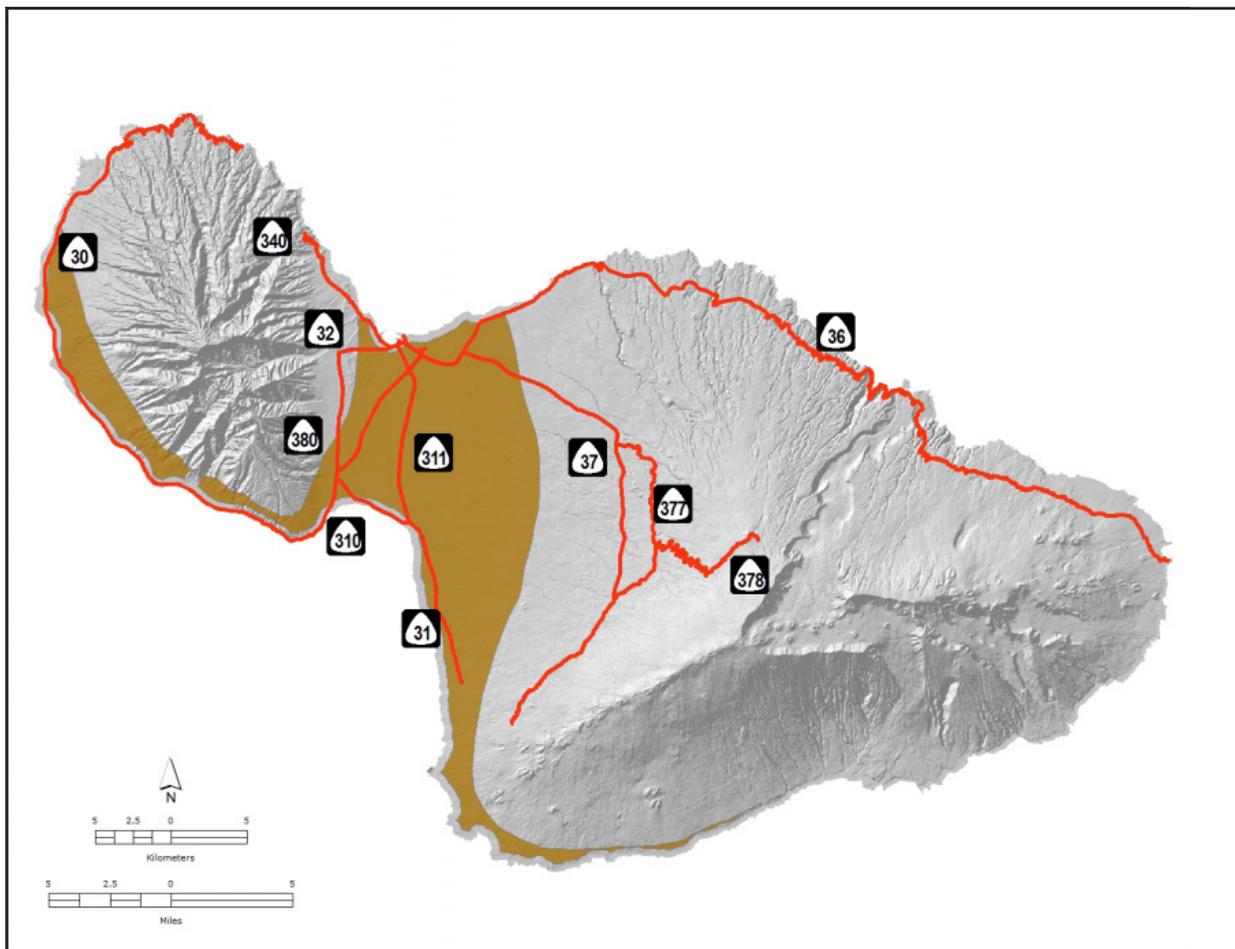
Ecological Planting Zones
in Maui County (Maui Island)

5. Coastal Wet
 State of Hawaii Department of Transportation Roads

TABLE 4.6: ECOZONE 6 – LOWLAND ARID

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub

*Indicates that the species is listed as federally and state endangered.



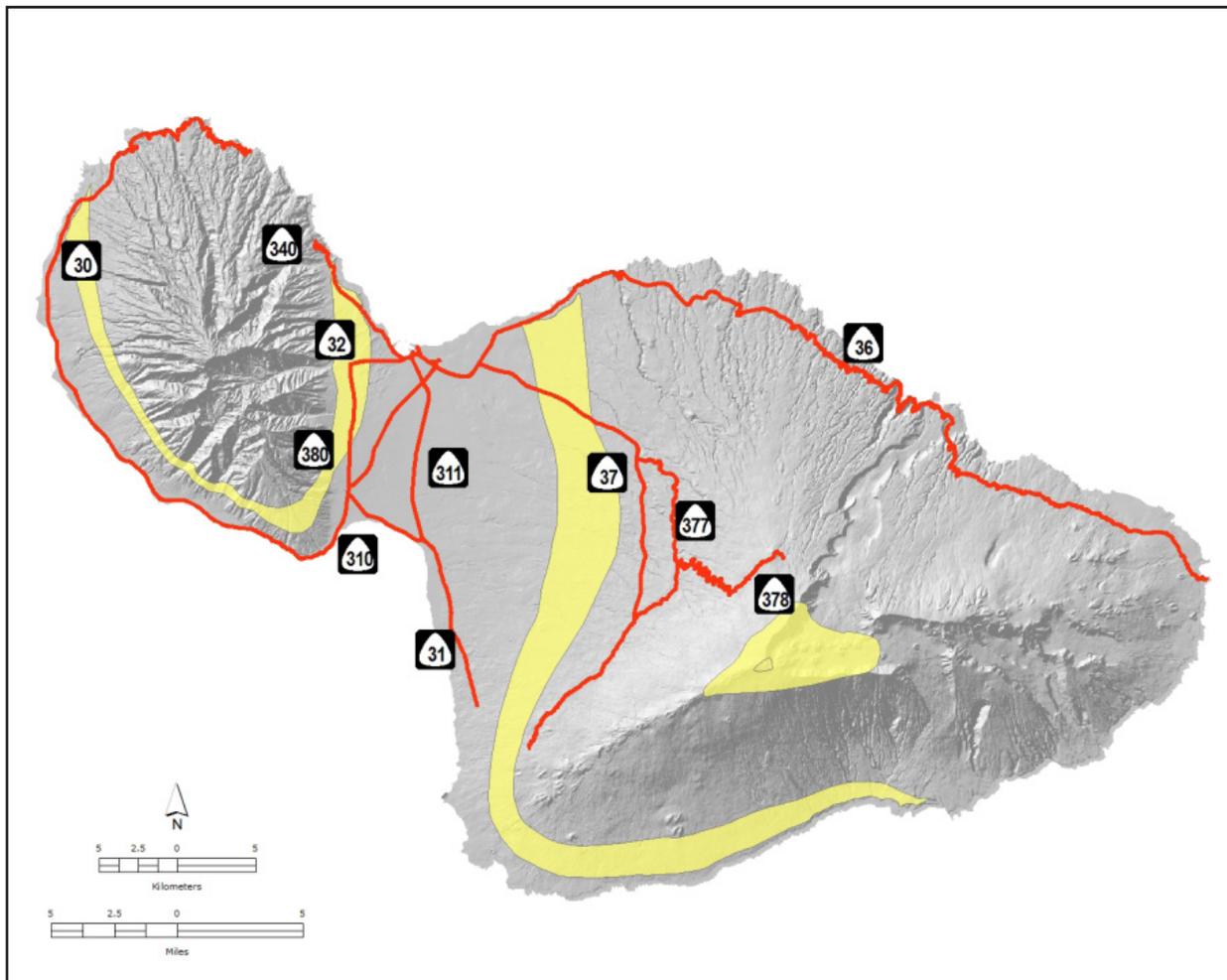
Ecological Planting Zones
in Maui County (Maui Island)

6. Lowland Arid State of Hawaii Department of Transportation Roads

TABLE 4.7: ECOZONE 7 – VERY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cenchrus agrimonioides</i> var. <i>agrimonioides</i>	kāmanomano	Endemic	Grass
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Psyrax odorata</i>	alahe'e	Indigenous	Tree
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub

*Indicates that the species is listed as federally and state endangered.



Ecological Planting Zones
in Maui County (Maui Island)

7. Very Dry
 State of Hawaii Department of Transportation Roads

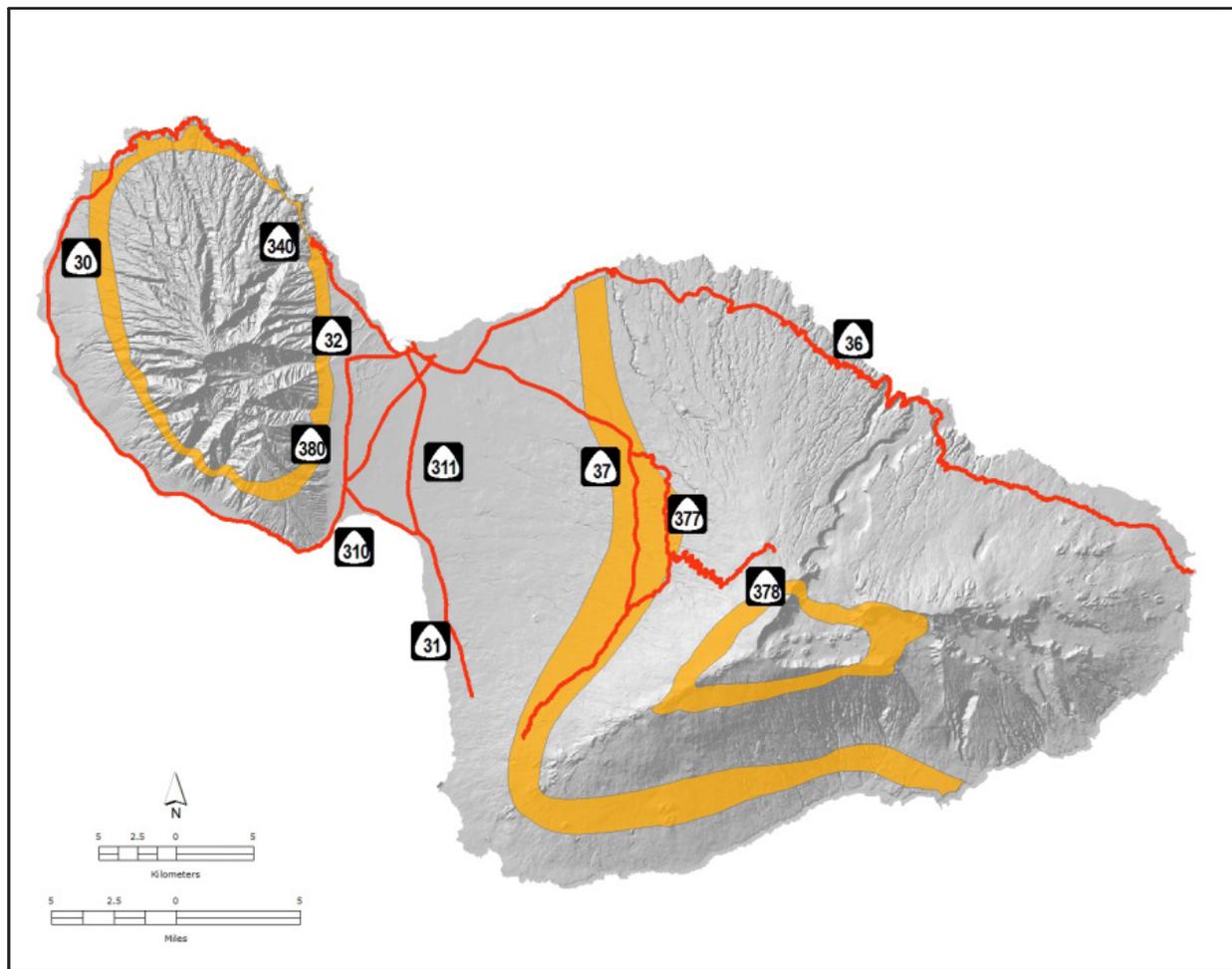
TABLE 4.8: ECOZONE 8 – MODERATELY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Acacia koaia</i>	koai'a	Endemic	Tree
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Charpentiera obovata</i>	pāpala	Endemic	Shrub / tree
<i>Cenchrus agrimonioides</i> var. <i>agrimonioides</i>	kāmanomano	Endemic	Grass
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Psydax odorata</i>	alahe'e	Indigenous	Tree
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover

*Indicates that the species is listed as federally and state endangered.

Leeward only:

<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
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Ecological Planting Zones
in Maui County (Maui Island)

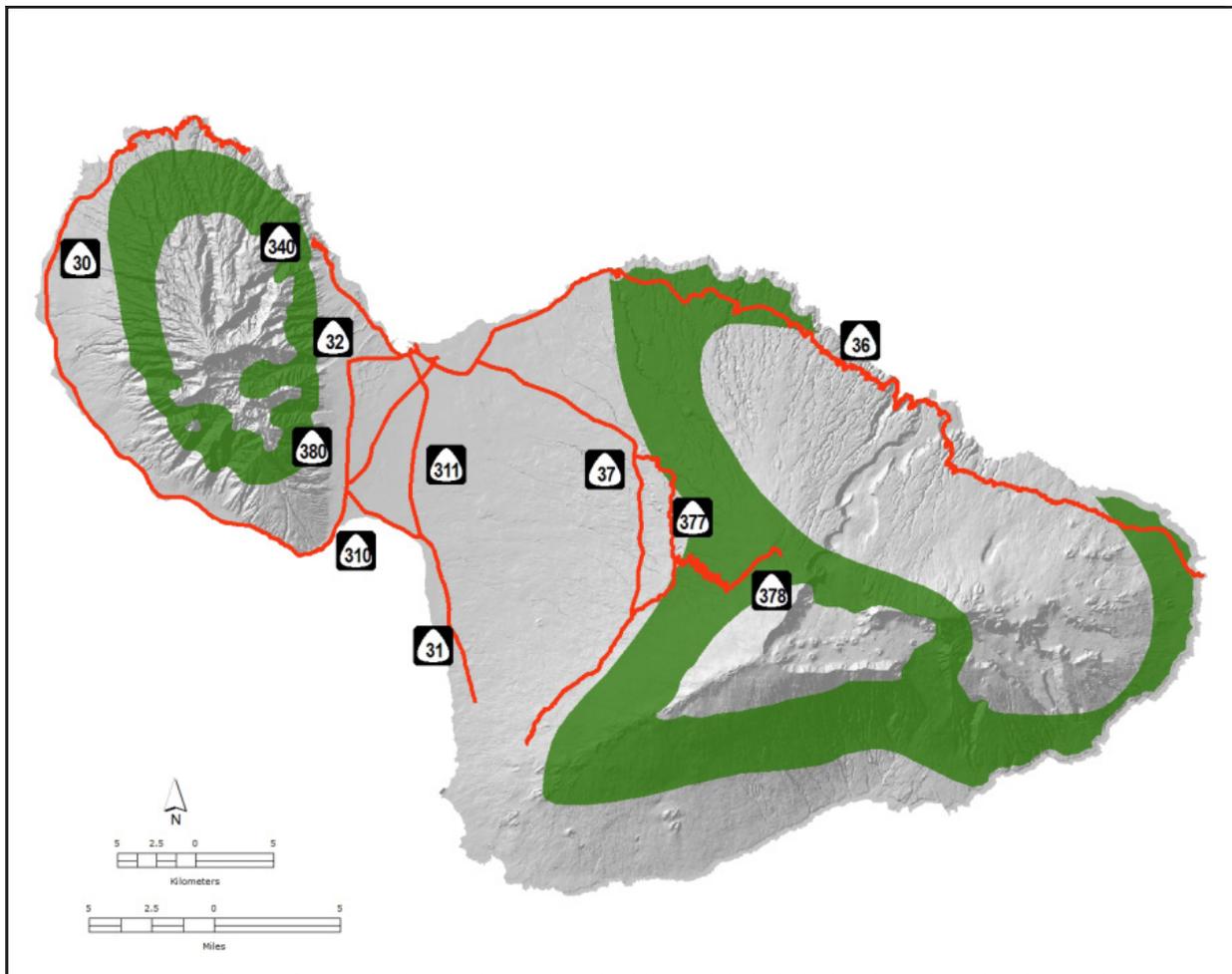
8. Moderately Dry State of Hawaii Department of Transportation Roads

TABLE 4.9: ECOZONE 9 – MESIC

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Acacia koaia</i>	koai'a	Endemic	Tree
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Charpentiera obovata</i>	pāpala	Endemic	Shrub / tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Euphorbia celastroides</i> var. <i>amplectens</i>	'akoko	Endemic	Shrub
<i>Metrosideros polymorpha</i>	'ōhi'a	Endemic	Tree
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Pritchardia glabrata</i>	loulu	Endemic	Tree
<i>Psyrdrax odorata</i>	alahe'e	Indigenous	Tree

Leeward only:

<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover

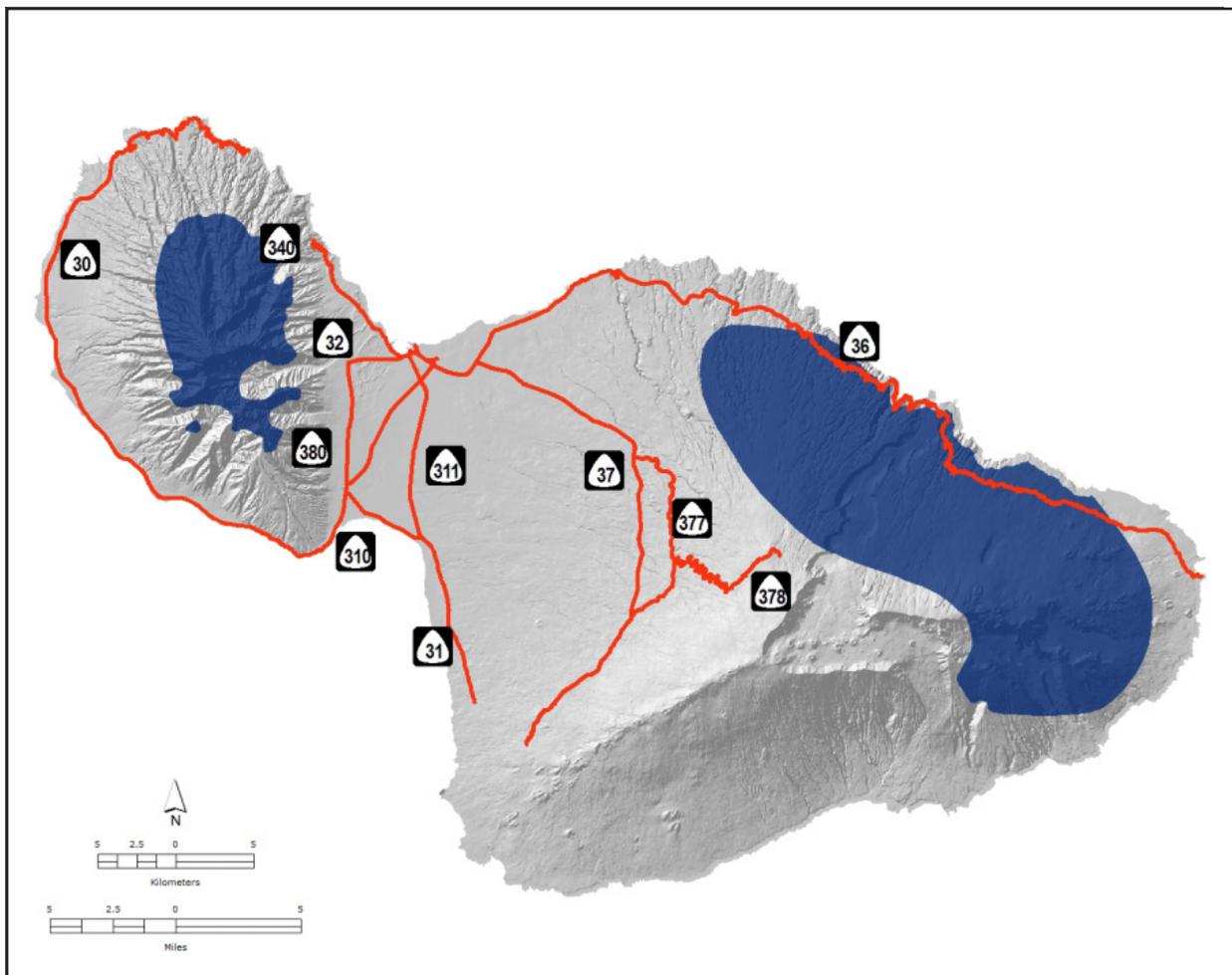


Ecological Planting Zones
in Maui County (Maui Island)

9. Mesic
 State of Hawaii Department of Transportation Roads

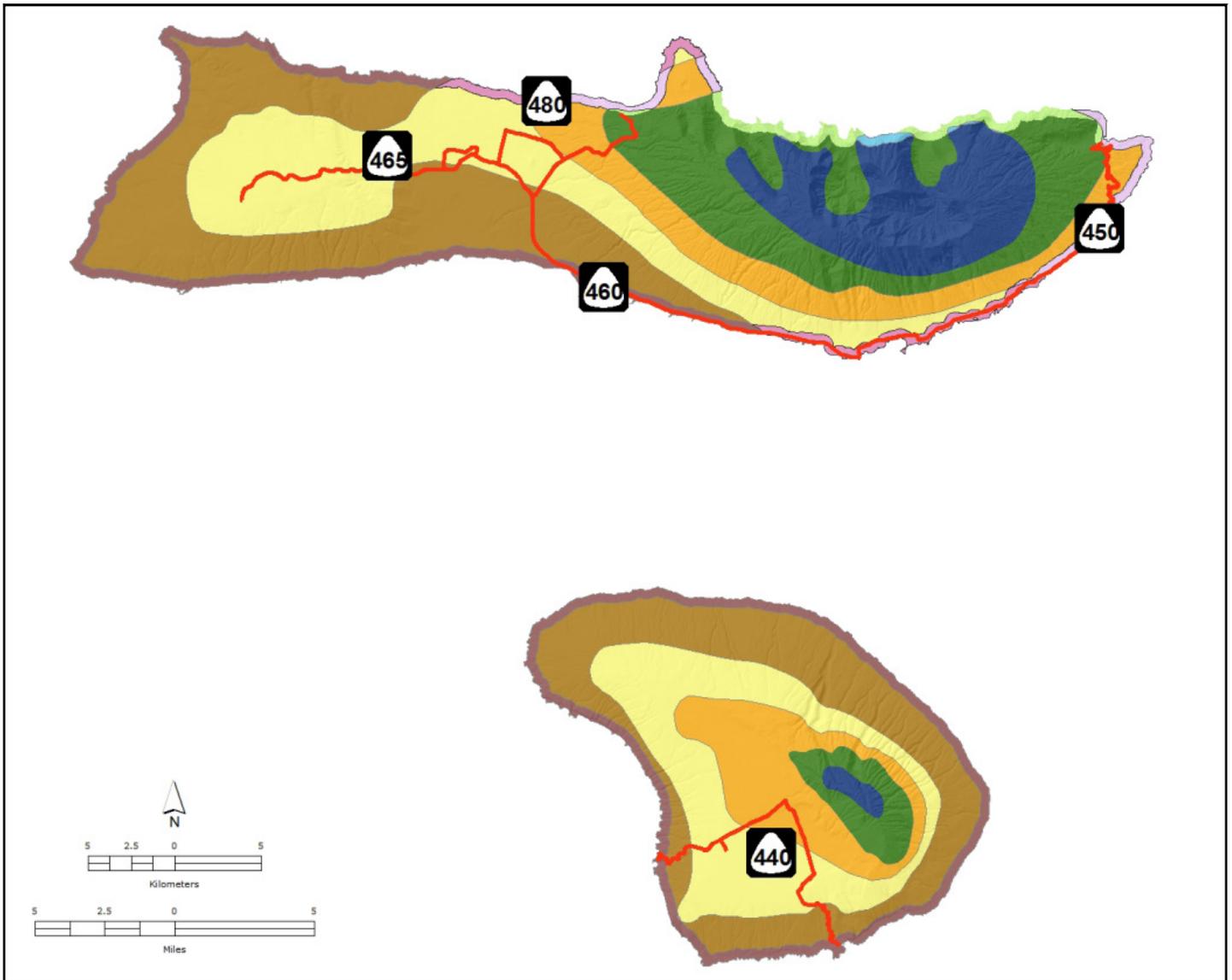
TABLE 4.10: ECOZONE 10 – WET

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Metrosideros polymorpha</i>	'ōhi'a	Endemic	Tree
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Pritchardia arecina</i>	loulu	Endemic	Tree
<i>Pritchardia glabrata</i>	loulu	Endemic	Tree



Ecological Planting Zones
in Maui County (Maui Island)

10. Wet
 State of Hawaii Department of Transportation Roads



**Ecological Planting Zones in Maui County
(Molokai and Lanai Islands)**

- | | | | | | | | | | |
|---|---------------------|---|---------------------------|---|-----------------|---|-------------------|---|----------|
|  | 1. Coastal Arid |  | 3. Coastal Moderately Dry |  | 5. Coastal Wet |  | 7. Very Dry |  | 9. Mesic |
|  | 2. Coastal Very Dry |  | 4. Coastal Mesic |  | 6. Lowland Arid |  | 8. Moderately Dry |  | 10. Wet |
-  State of Hawaii Department of Transportation Roads

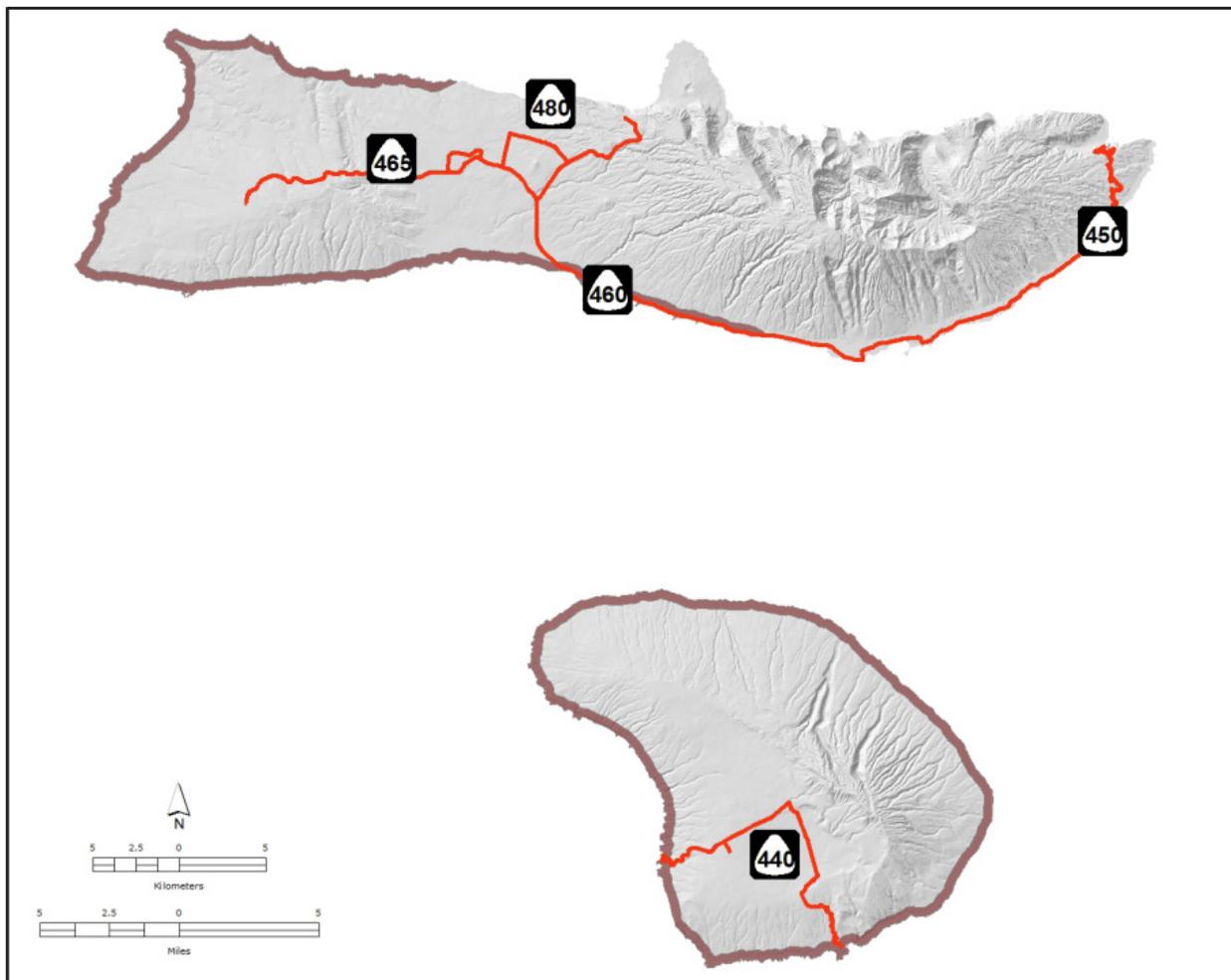
Figure 4.2. Moloka‘i and Lana‘i Ecological Zones

Ecological Zones and Native Planting List – Chapter 4: Maui County

TABLE 4.11: ECOZONE 1 – COASTAL ARID

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'i	Endemic	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub

*Indicates that the species is listed as federally and state endangered.



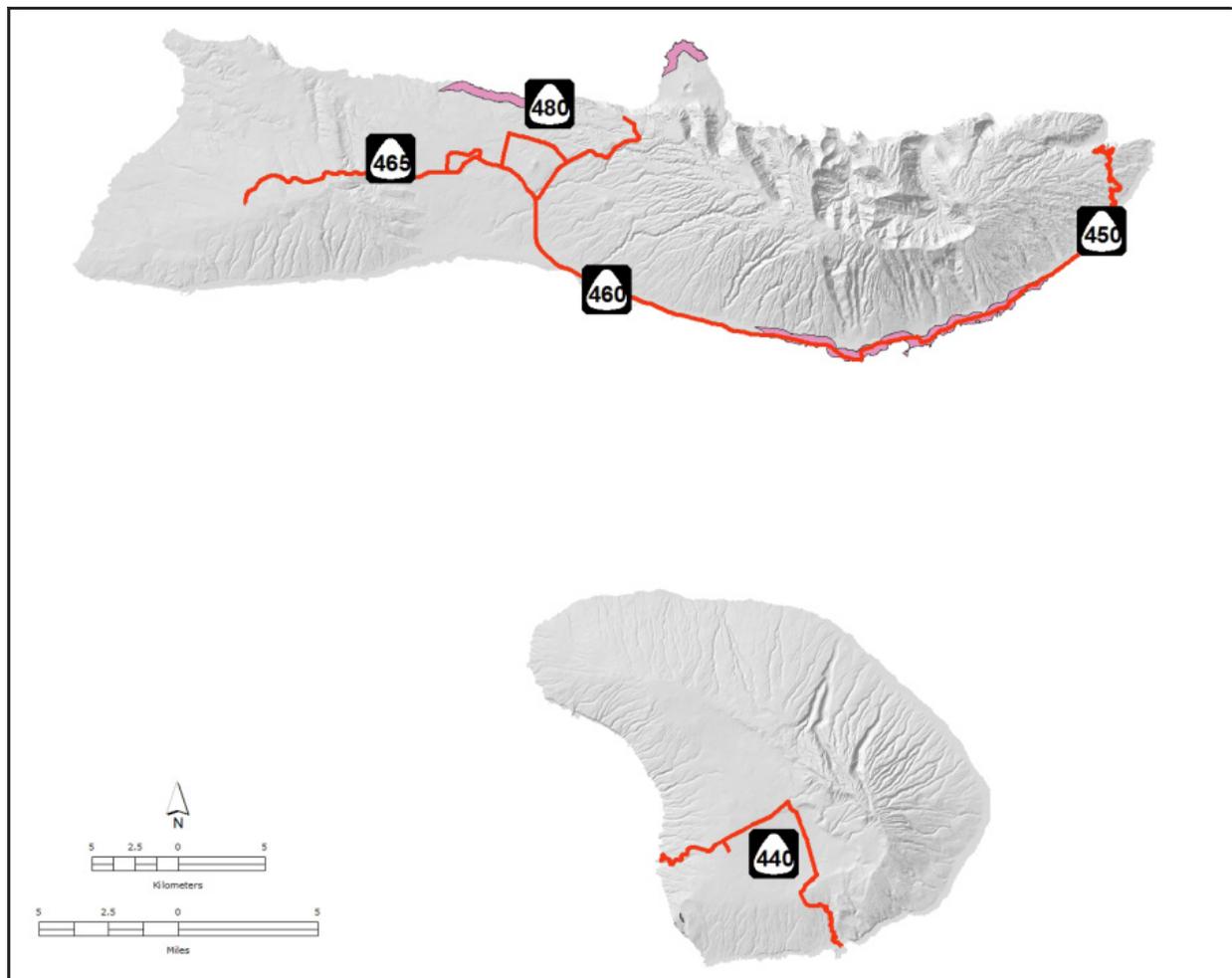
**Ecological Planting Zones in Maui County
(Molokai and Lanai Islands)**

1. Coastal Arid State of Hawaii Department of Transportation Roads

TABLE 4.12: ECOZONE 2 – COASTAL VERY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Colubrina asiatica</i>	'ānapanapa	Indigenous	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover

*Indicates that the species is listed as federally and state endangered.



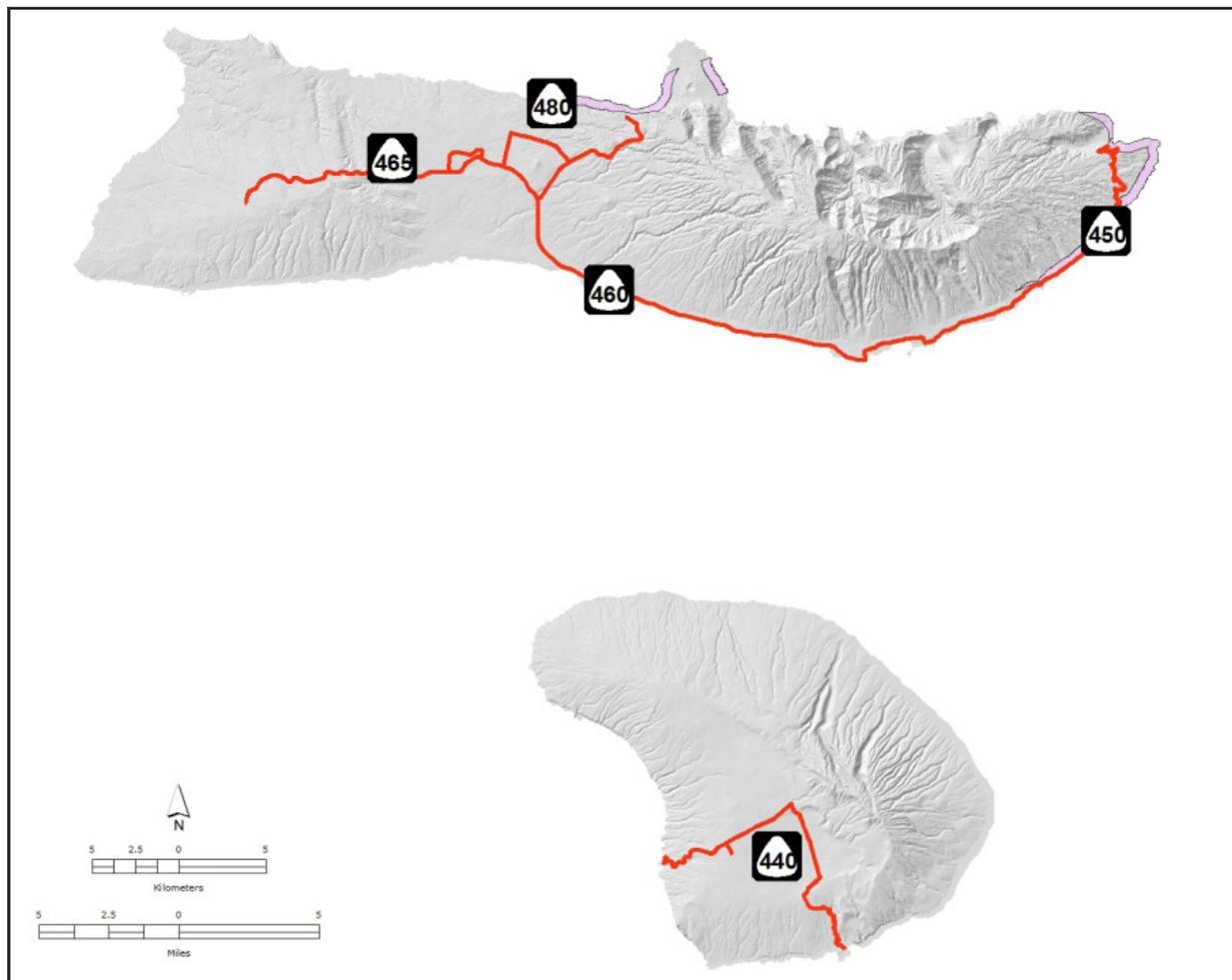
Ecological Planting Zones in Maui County (Molokai and Lanai Islands)

2. Coastal Very Dry
 State of Hawaii Department of Transportation Roads

TABLE 4.13: ECOZONE 3 – COASTAL MODERATELY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Colubrina asiatica</i>	'ānapanapa	Indigenous	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'īlie'e	Indigenous	Ground cover
<i>Psyrax odorata</i>	alaha'e	Indigenous	Tree
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover

*Indicates that the species is listed as federally and state endangered.



Ecological Planting Zones in Maui County
(Molokai and Lanai Islands)

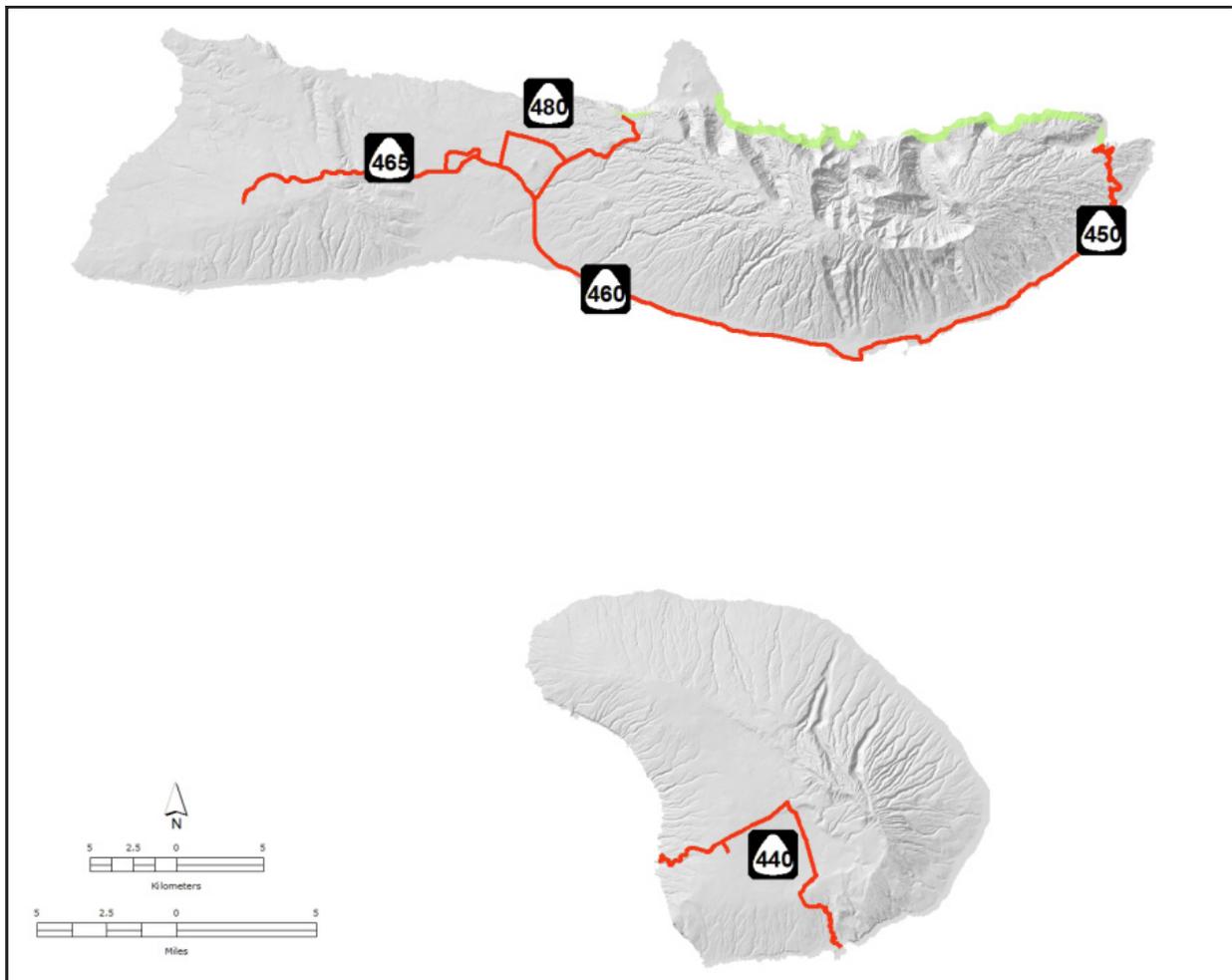
3. Coastal Moderately Dry State of Hawaii Department of Transportation Roads

TABLE 4.14: ECOZONE 4 – COASTAL MESIC

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Nototrichium sandwicense</i>	kuluʻī	Endemic	Shrub

TABLE 4.15: ECOZONE 5 – COASTAL WET

There are no HDOT roads within this ecological zone on Molokaʻi or Lanaʻi.



Ecological Planting Zones in Maui County
(Molokai and Lanai Islands)

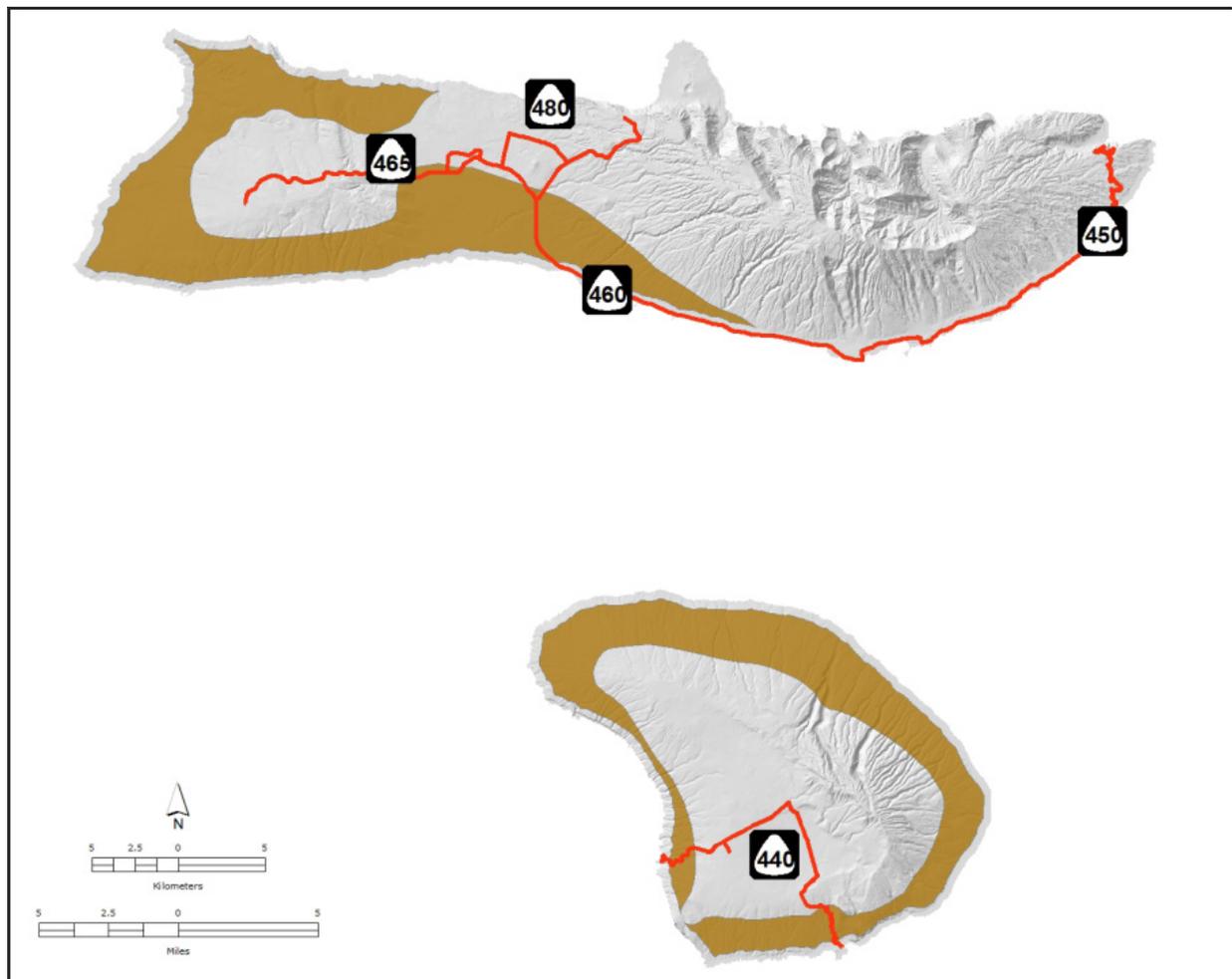
4. Coastal Mesic

State of Hawaii Department
of Transportation Roads

TABLE 4.16: ECOZONE 6 – LOWLAND ARID

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub

*Indicates that the species is listed as federally and state endangered.



Ecological Planting Zones in Maui County
(Molokai and Lanai Islands)

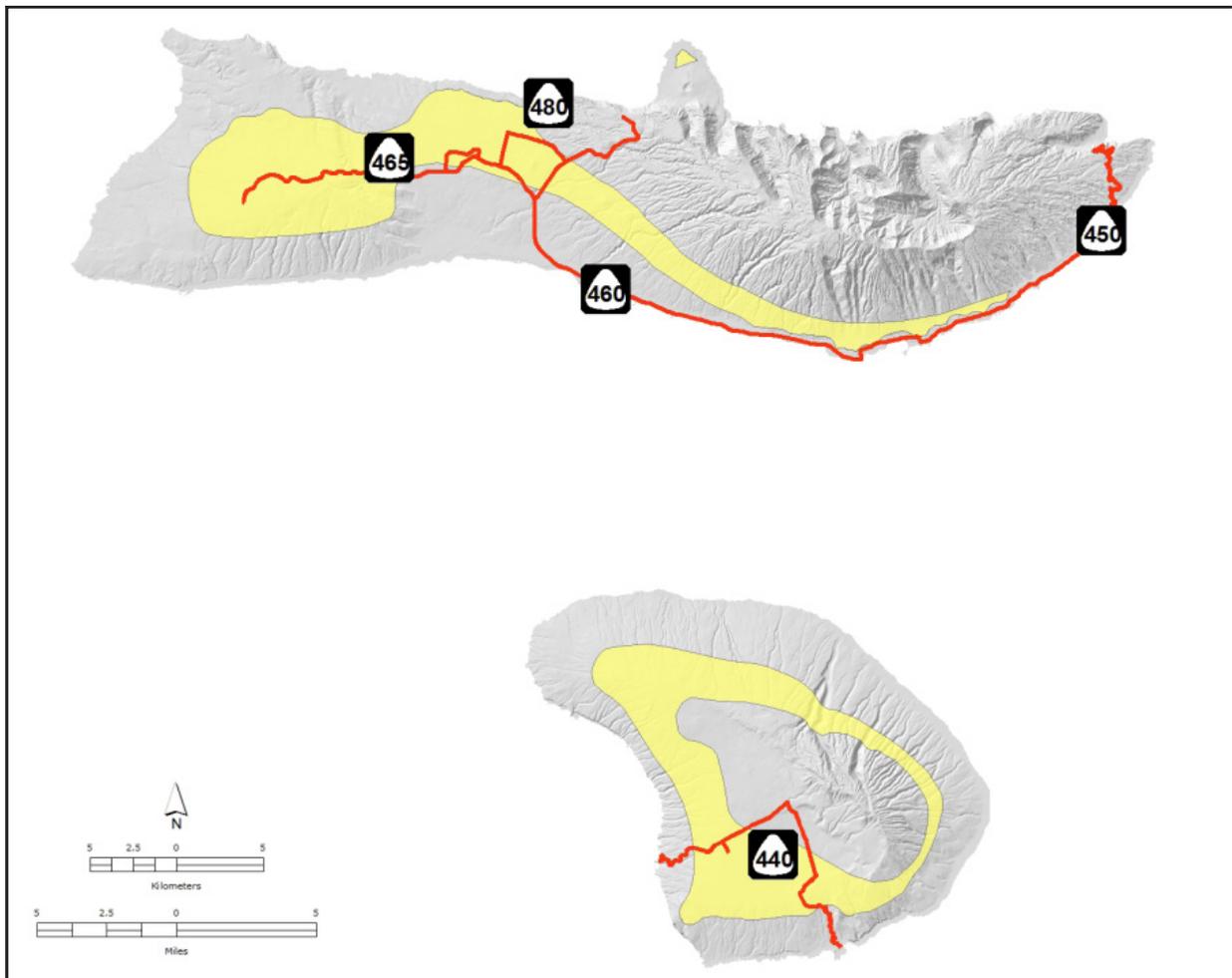
6. Lowland Arid

State of Hawaii Department
of Transportation Roads

TABLE 4.17: ECOZONE 7 – VERY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'i	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Psydrax odorata</i>	alaha'e	Indigenous	Tree
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub

*Indicates that the species is listed as federally and state endangered.

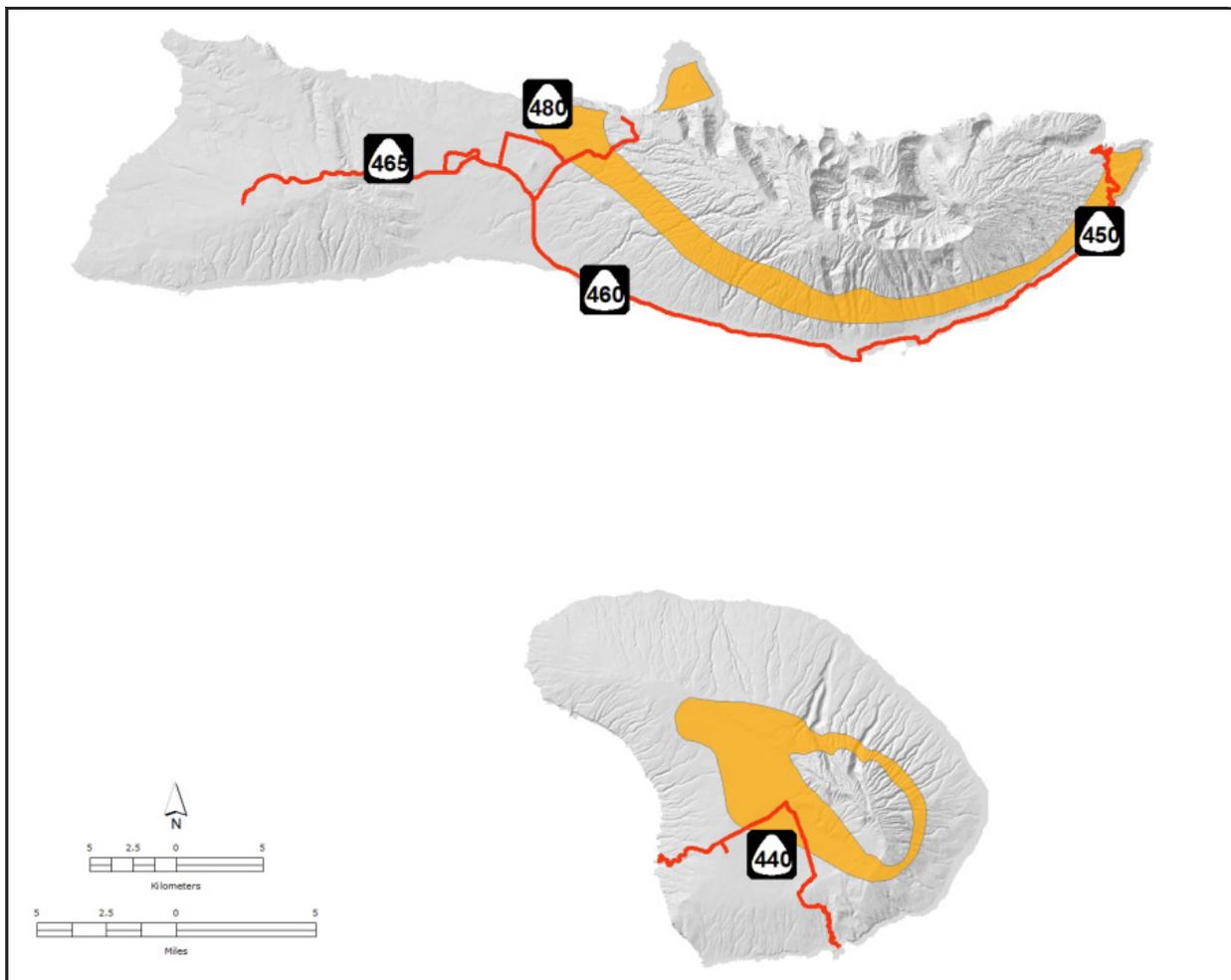


Ecological Planting Zones in Maui County
(Molokai and Lanai Islands)

7. Very Dry
 State of Hawaii Department of Transportation Roads

TABLE 4.18: ECOZONE 8 – MODERATELY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Acacia koaia</i>	koai'a	Endemic	Tree
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Charpentiera obovata</i>	pāpala	Endemic	Shrub / tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Metrosideros polymorpha</i>	'ōhi'a	Endemic	Tree
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Psydrax odorata</i>	alahe'e	Indigenous	Tree
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover



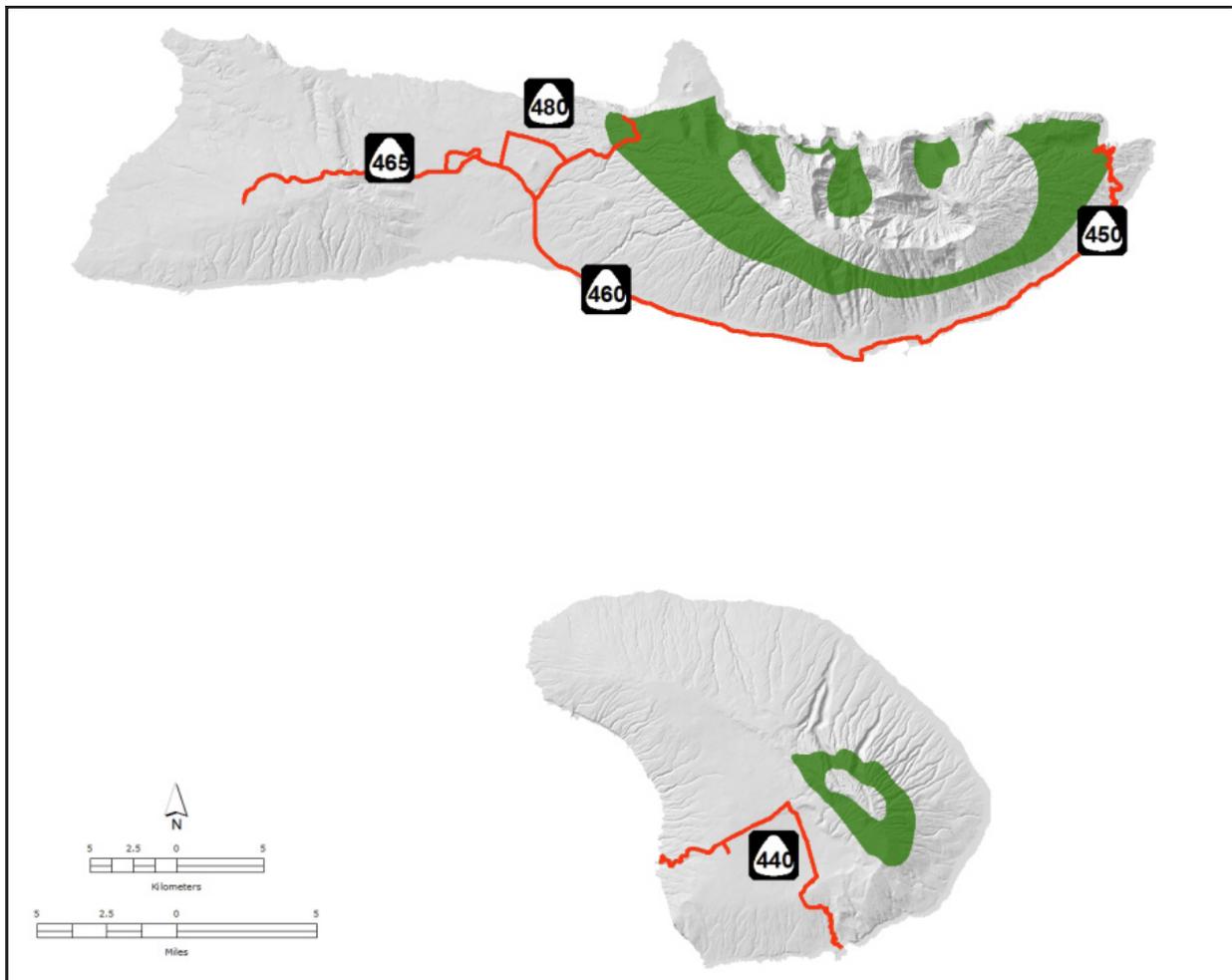
Ecological Planting Zones in Maui County
(Molokai and Lanai Islands)

8. Moderately Dry

State of Hawaii Department of Transportation Roads

TABLE 4.19: ECOZONE 9 – MESIC

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Charpentiera obovata</i>	pāpala	Endemic	Shrub / tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Metrosideros polymorpha</i>	'ōhi'a	Endemic	Tree
<i>Myoporum sandwicense</i>	naio	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'i	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Plumbago zeylanica</i>	'ilii'e	Indigenous	Ground cover
<i>Pritchardia hillebrandii</i>	loulu	Endemic	Tree
<i>Psychrax odorata</i>	alahe'e	Indigenous	Tree
<i>Wikstroemia uva-ursi</i>	'ākia	Endemic	Ground cover



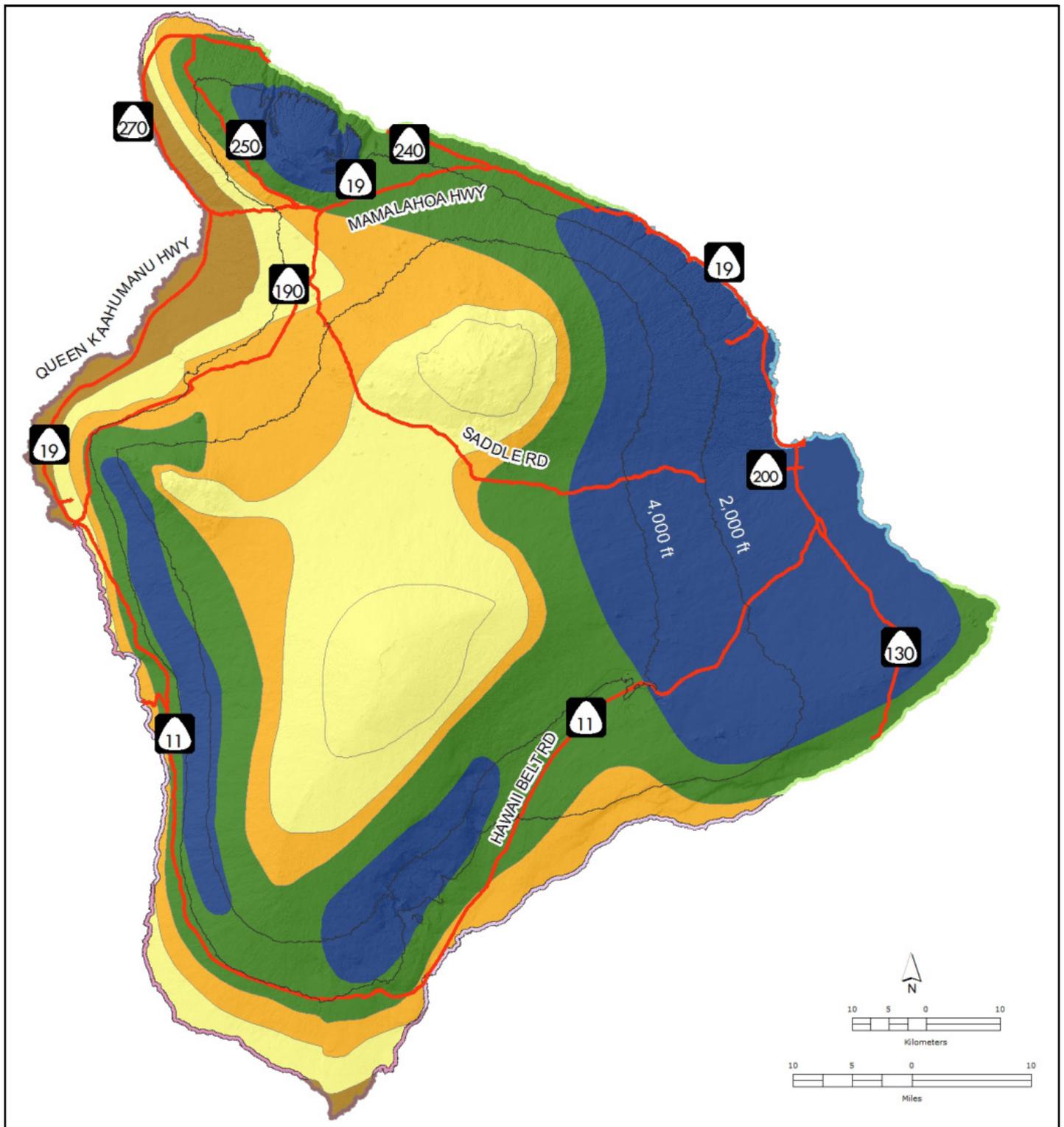
Ecological Planting Zones in Maui County
(Molokai and Lanai Islands)

9. Mesic
 State of Hawaii Department of Transportation Roads

TABLE 4.20: ECOZONE 10 – WET

There are no HDOT roads within this ecological zone on Moloka'i or Lana'i.

CHAPTER 5. HAWAI'I COUNTY



**Ecological Planting Zones
in Hawaii County**

- | | | | | |
|--|---|---|---|--|
|  1. Coastal Arid |  3. Coastal Moderately Dry |  5. Coastal Wet |  7. Very Dry |  9. Mesic |
|  2. Coastal Very Dry |  4. Coastal Mesic |  6. Lowland Arid |  8. Moderately Dry |  10. Wet |
-  State of Hawaii Department of Transportation Roads

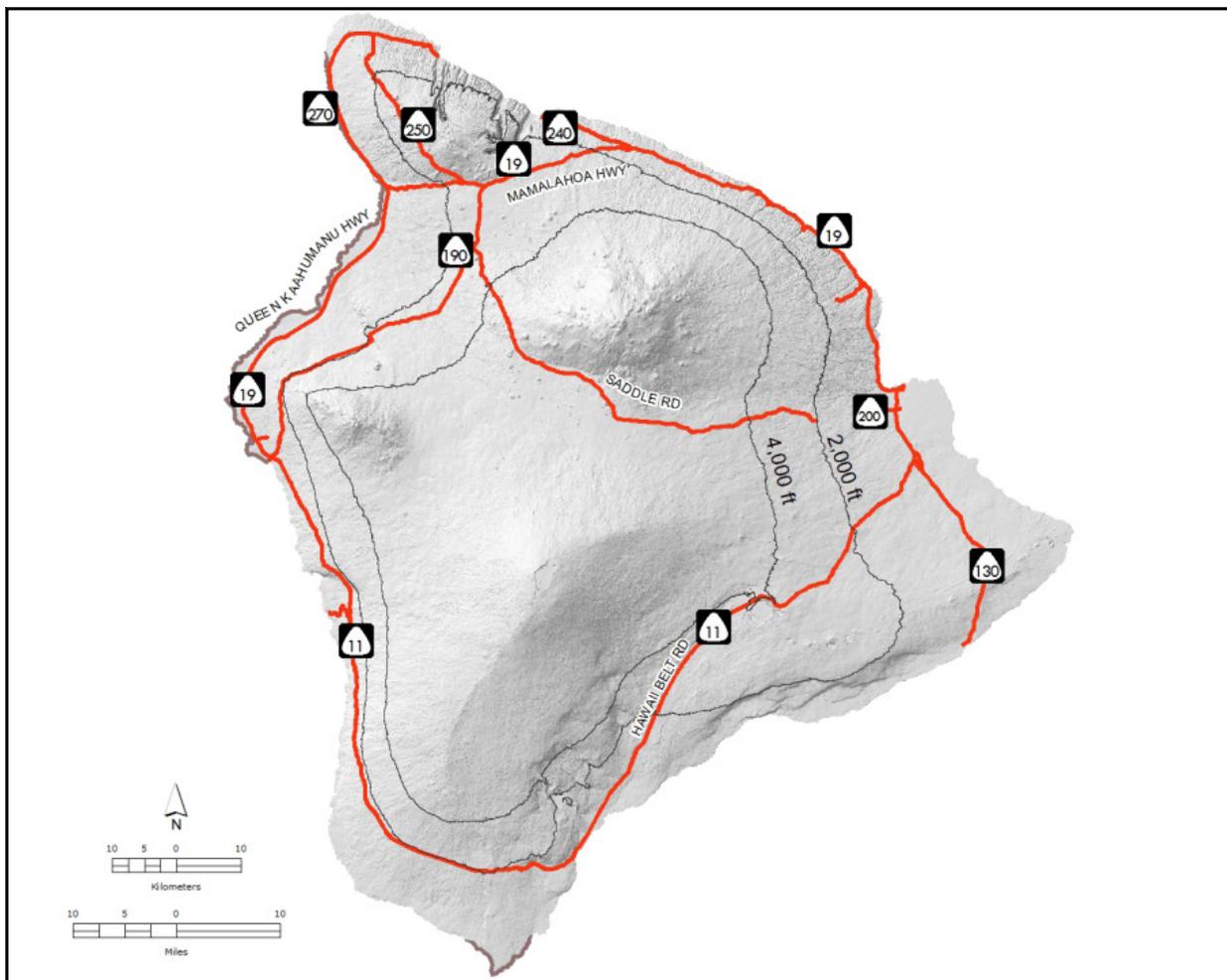
Figure 5.1. Hawaii County Ecological Zones

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TABLE 5.1: ECOZONE 1 – COASTAL ARID

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Pritchardia affinis</i> *	loulou	Endemic	Tree
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub

*Indicates that the species is listed as federally and state endangered.



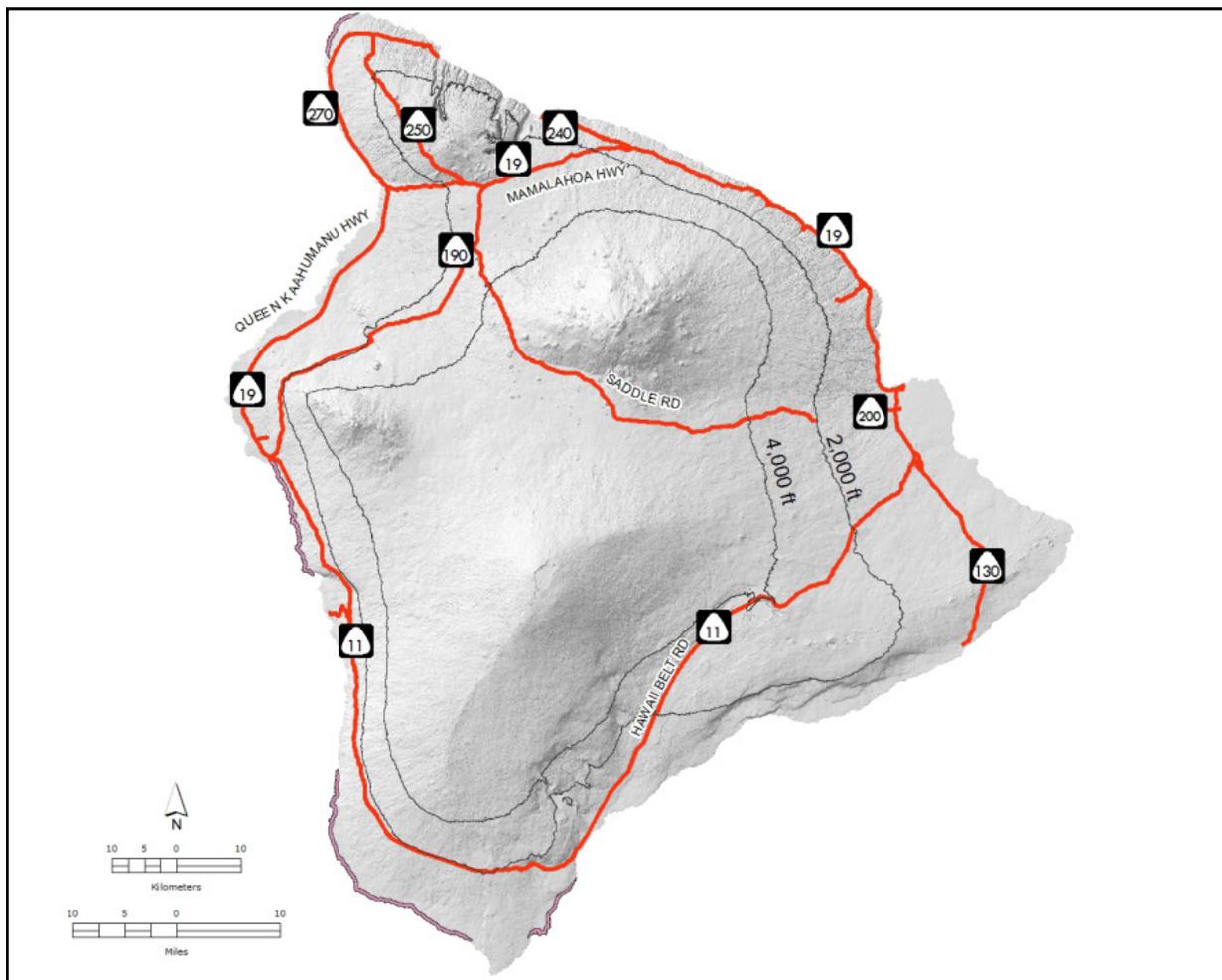
Ecological Planting Zones in Hawaii County

1. Coastal Arid State of Hawaii Department of Transportation Roads

TABLE 5.2: ECOZONE 2 – COASTAL VERY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Pritchardia affinis</i> *	loulou	Endemic	Tree
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sida fallax</i>	'ilima	Indigenous	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahakai	Indigenous	Ground cover / shrub

*Indicates that the species is listed as federally and state endangered.



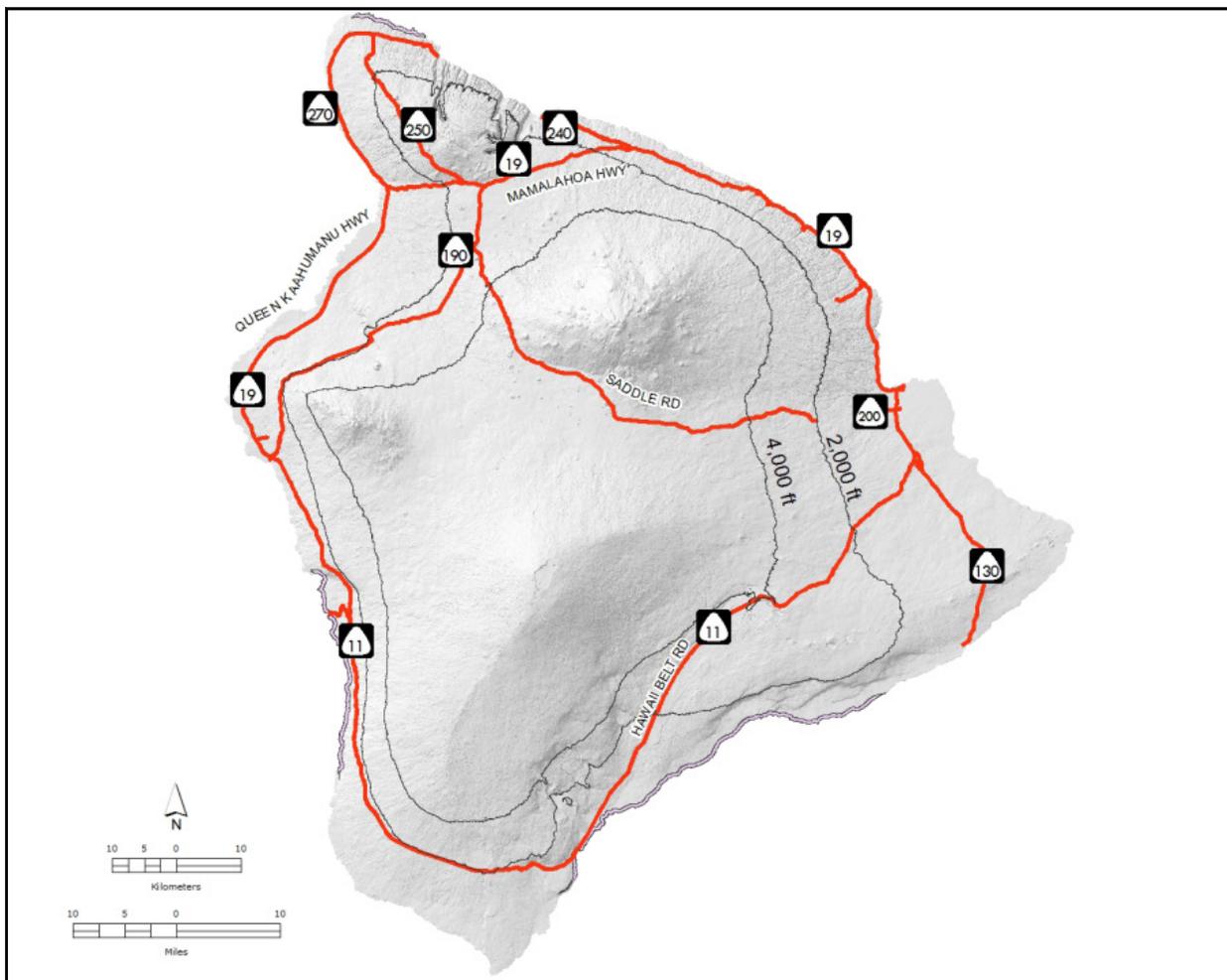
Ecological Planting Zones in Hawaii County

2. Coastal Very Dry
 State of Hawaii Department of Transportation Roads

TABLE 5.3: ECOZONE 3 – COASTAL MODERATELY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Melanthera integrifolia</i>	nehe	Endemic	Ground cover
<i>Nototrichium sandwicense</i>	kulu'ī	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Pritchardia affinis</i> *	loulou	Endemic	Tree
<i>Psydrax odorata</i>	alaha'e	Indigenous	Tree
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sida fallax</i>	'ilima	Indigenous	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	milo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover
<i>Vitex rotundifolia</i>	pōhinahina, kolokolo kahaka	Indigenous	Ground cover / shrub

*Indicates that the species is listed as federally and state endangered.



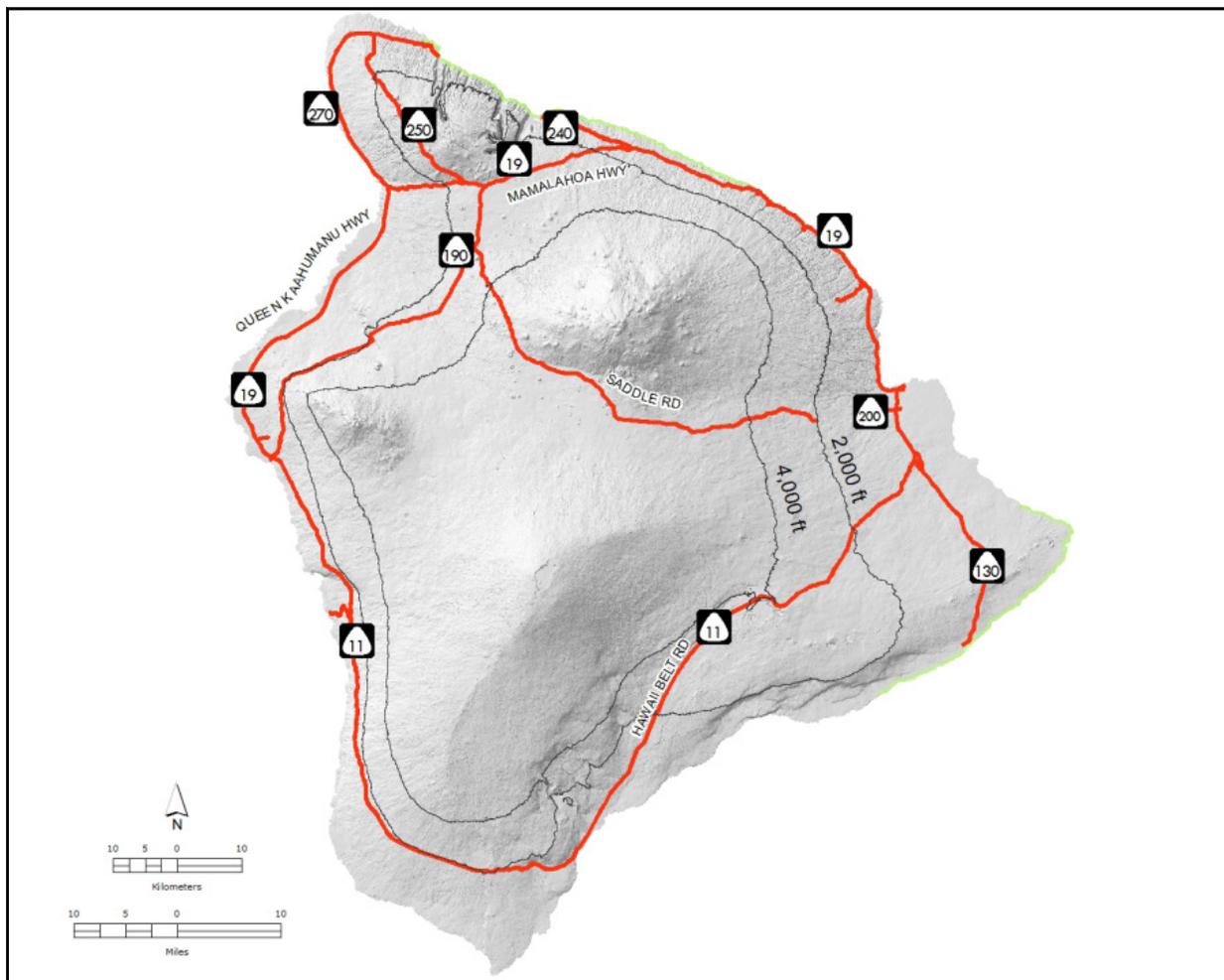
**Ecological Planting Zones
in Hawaii County**

- 3. Coastal Moderately Dry
- State of Hawaii Department of Transportation Roads

TABLE 5.4: ECOZONE 4 – COASTAL MESIC

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Cyperus javanicus</i>	'ahu'awa	Indigenous	Ground cover
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Nototrichium sandwicense</i>	kulu'i	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Pritchardia affinis</i> *	loulu	Endemic	Tree
<i>Psydrax odorata</i>	alaha'e	Indigenous	Tree
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesuvium portulacastrum</i>	'ākulikuki	Indigenous	Ground cover
<i>Sida fallax</i>	'ilima	Indigenous	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass
<i>Thespesia populnea</i>	miilo	Indigenous	Tree
<i>Vigna marina</i>	nanea, mohihihi	Indigenous	Ground cover

*Indicates that the species is listed as federally and state endangered.

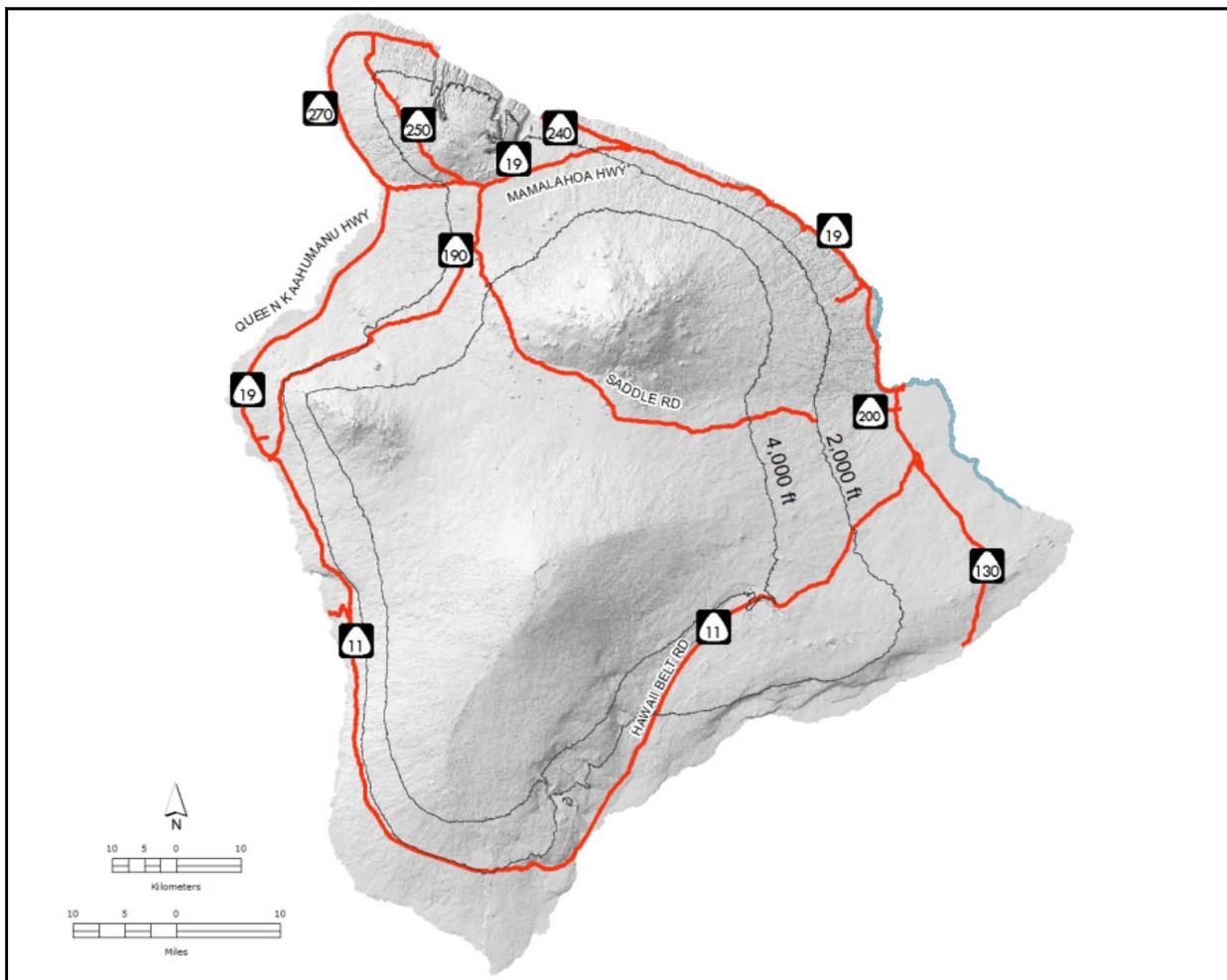


**Ecological Planting Zones
in Hawaii County**

4. Coastal Mesic State of Hawaii Department of Transportation Roads

TABLE 5.5: ECOZONE 5 – COASTAL WET

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Cyperus javanicus</i>	'ahu'awa	Indigenous	Ground cover
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Ipomoea pes-caprae</i> ssp. <i>brasiliensis</i>	pōhuehue, beach morning glory	Indigenous	Ground cover
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Scaevola taccada</i>	naupaka, naupaka kahakai	Indigenous	Shrub
<i>Sesuvium portulacastrum</i>	'ākulikuki	Indigenous	Ground cover
<i>Sida fallax</i>	'ilima	Indigenous	Shrub
<i>Sporobolus virginicus</i>	'aki'aki	Indigenous	Grass



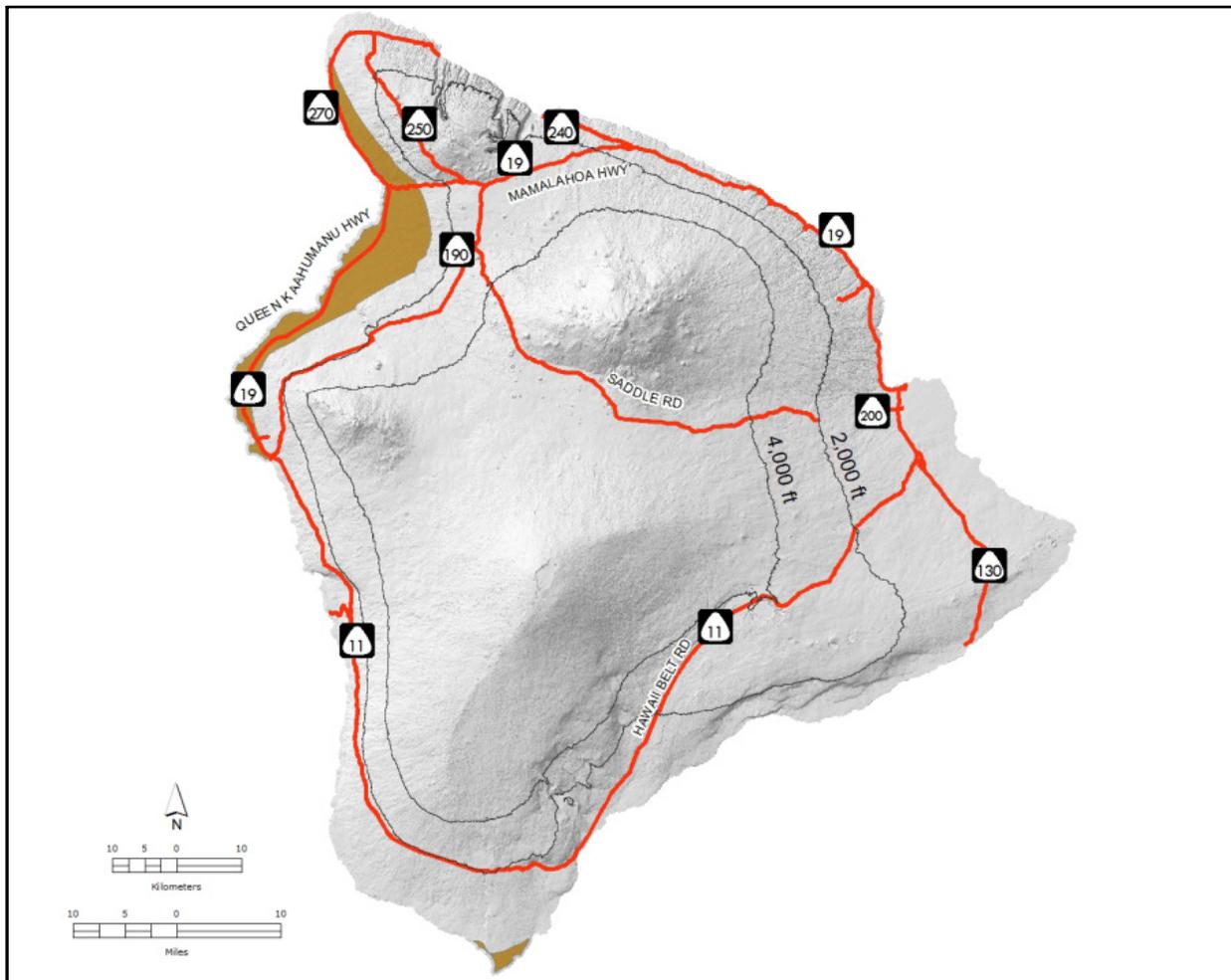
**Ecological Planting Zones
in Hawaii County**

5. Coastal Wet
 State of Hawaii Department of Transportation Roads

TABLE 5.6: ECOZONE 6 – LOWLAND ARID

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Cordia subcordata</i>	kou	Indigenous	Tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
<i>Sesbania tomentosa</i> *	'ohai	Endemic	Shrub
<i>Sida fallax</i>	'ilima	Indigenous	Shrub

*Indicates that the species is listed as federally and state endangered.



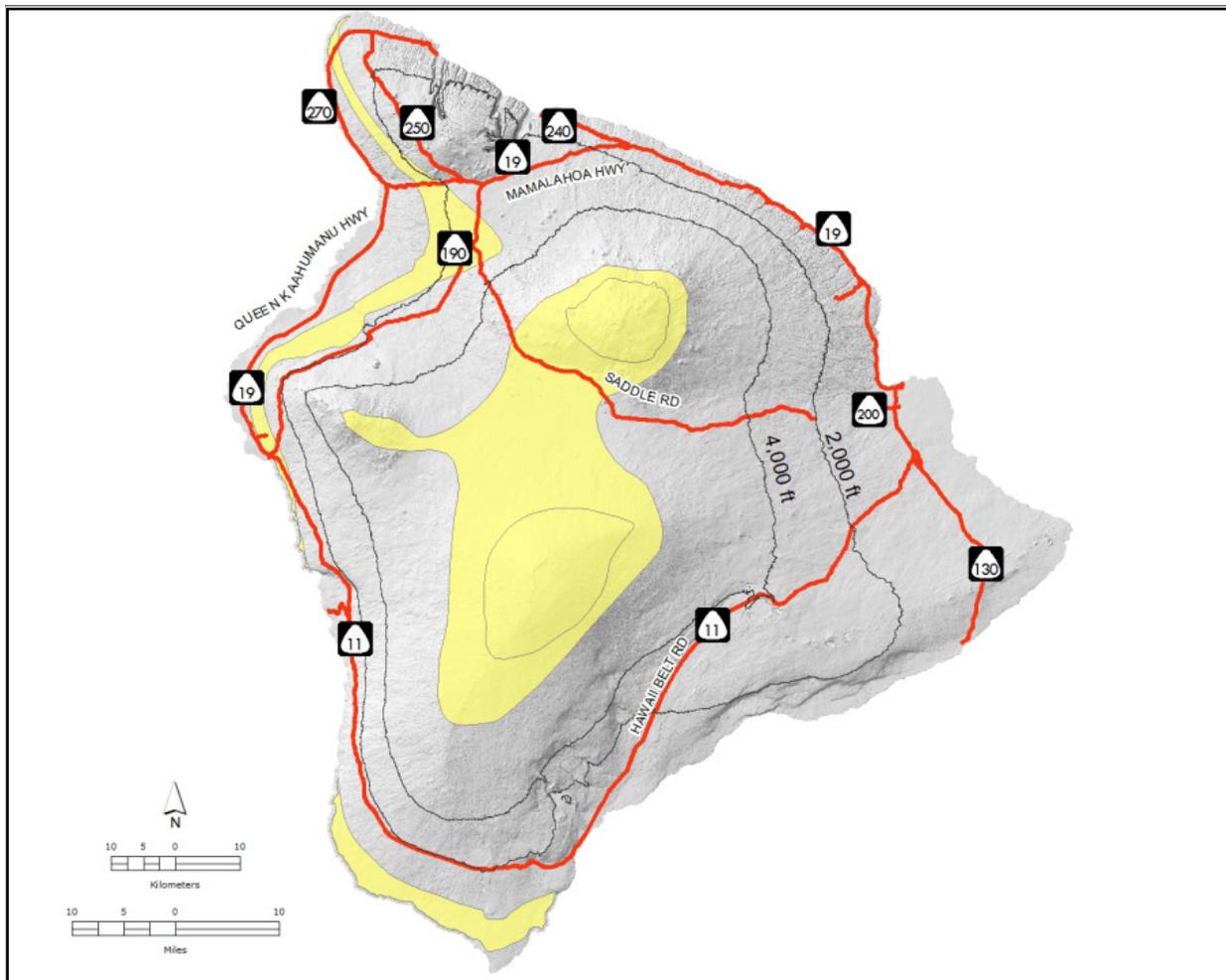
Ecological Planting Zones
in Hawaii County

6. Lowland Arid

State of Hawaii Department
of Transportation Roads

TABLE 5.7: ECOZONE 7 – VERY DRY

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'i	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Sida fallax</i>	'ilima	Indigenous	Shrub
Below 2,000 feet in elevation only:			
<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Fimbristylis cymosa</i>	mau'u 'aki'aki	Indigenous	Sedge
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Plumbago zeylanica</i>	'ilie'e	Indigenous	Ground cover
Below 4,000 feet in elevation only:			
<i>Psyrax odorata</i>	alahe'e	Indigenous	Tree



Ecological Planting Zones
in Hawaii County

7. Very Dry
 State of Hawaii Department of Transportation Roads

TABLE 5.8: ECOZONE 8 – MODERATELY DRY

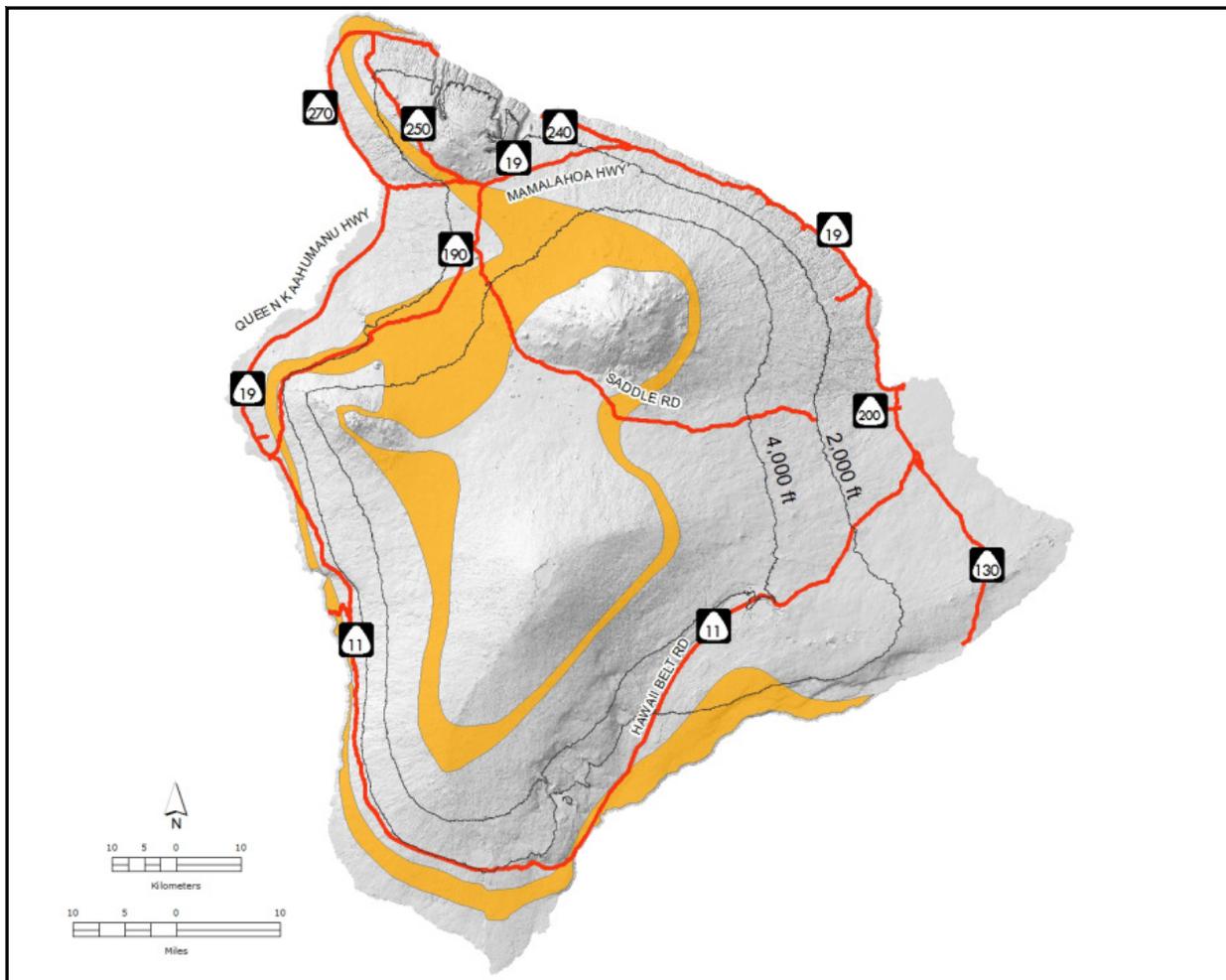
Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Nototrichium sandwicense</i>	kulu'i	Endemic	Shrub
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub
<i>Sida fallax</i>	'ilima	Indigenous	Shrub

Below 2,000 feet in elevation only:

<i>Capparis sandwichiana</i>	maiapilo	Endemic	Shrub
<i>Heteropogon contortus</i>	pili	Indigenous	Grass
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree

Below 4,000 feet in elevation only:

<i>Acacia koaia</i>	koai'a	Endemic	Tree
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Psyrax odorata</i>	alaha'e	Indigenous	Tree



**Ecological Planting Zones
in Hawaii County**

8. Moderately Dry
 State of Hawaii Department of Transportation Roads

TABLE 5.9: ECOZONE 9 – MESIC

Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Charpentiera obovata</i>	pāpala	Endemic	Shrub / tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Metrosideros polymorpha</i>	'ōhi'a	Endemic	Tree
<i>Osteomeles anthyllidifolia</i>	'ūlei	Indigenous	Shrub

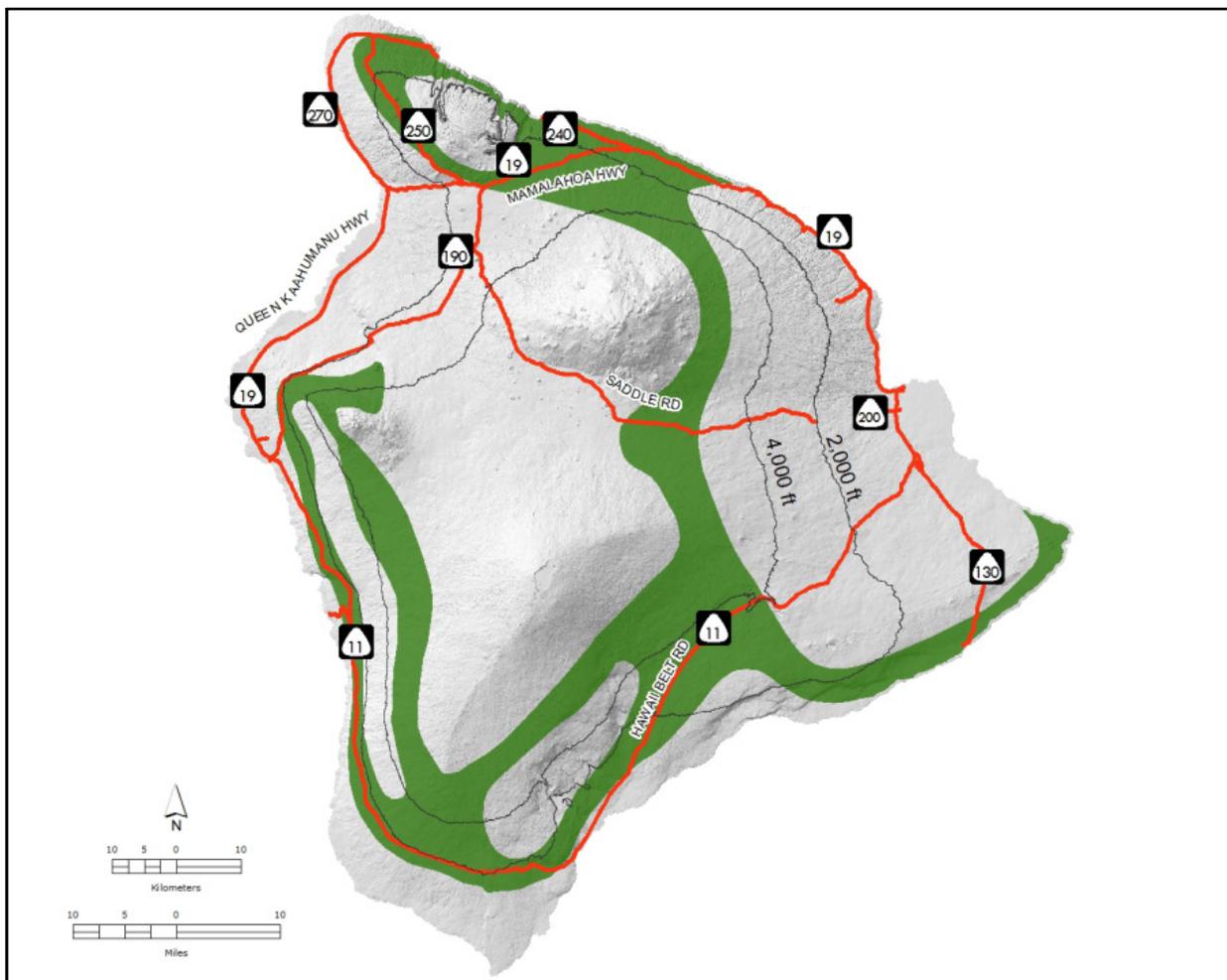
Below 2,000 feet in elevation only:

<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree
<i>Pritchardia affinis</i> *	loulu	Endemic	Tree

*Indicates that the species is listed as federally and state endangered.

Below 4,000 feet in elevation only:

<i>Acacia koaia</i>	koa'i'a	Endemic	Tree
<i>Euphorbia celastroides</i> var. <i>amplectens</i>	'akoko	Endemic	Shrub
<i>Psyrax odorata</i>	alahe'e	Indigenous	Tree



**Ecological Planting Zones
in Hawaii County**

9. Mesic
 State of Hawaii Department of Transportation Roads

TABLE 5.10: ECOZONE 10 – WET

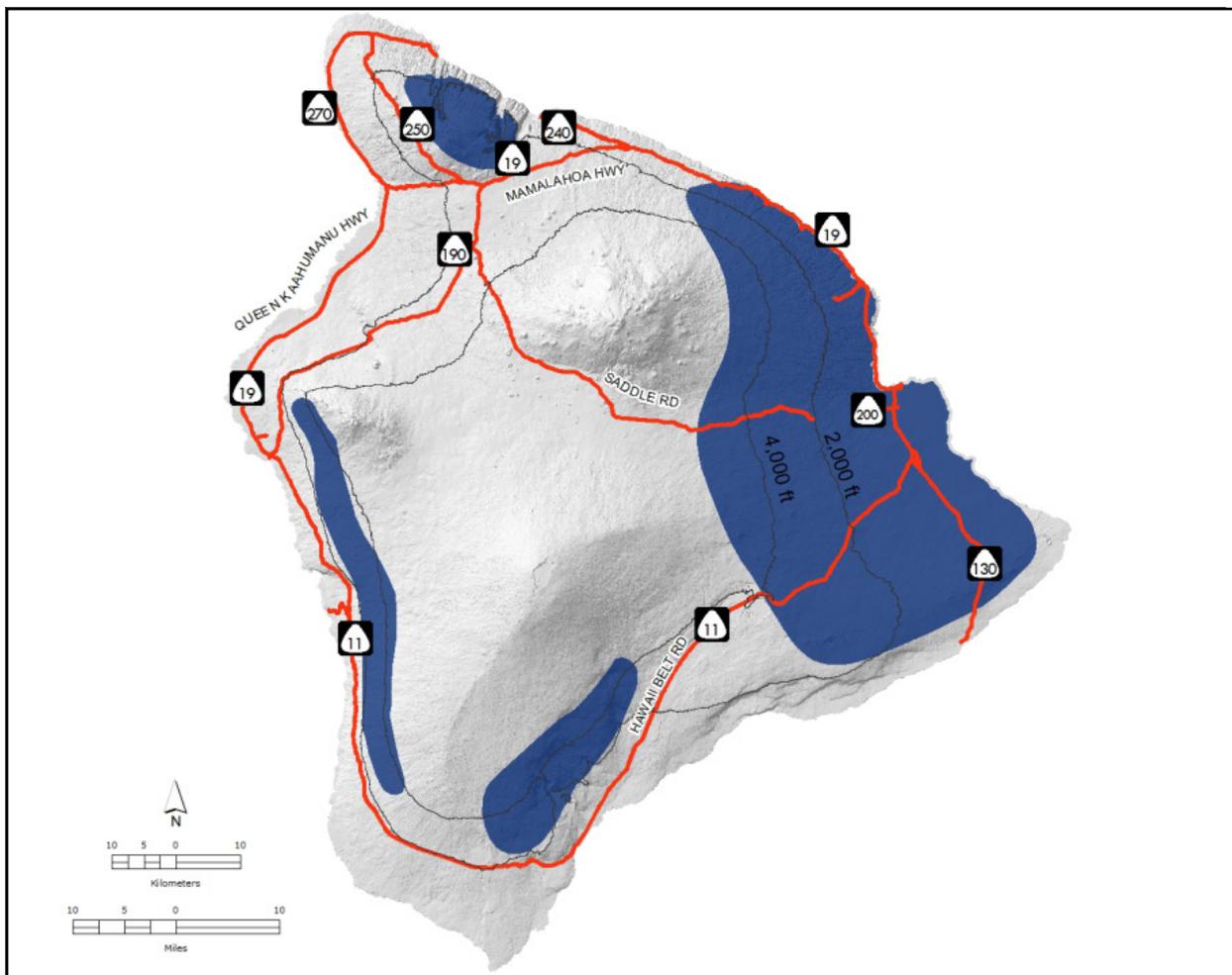
Scientific Name	Hawaiian / Common Name	Status	Form
<i>Acacia koa</i>	koa	Endemic	Tree
<i>Carex wahuensis</i>	O'ahu sedge	Endemic	Sedge
<i>Charpentiera obovata</i>	pāpala	Endemic	Shrub / tree
<i>Dodonaea viscosa</i>	'a'ali'i	Indigenous	Shrub
<i>Metrosideros polymorpha</i>	'ōhi'a	Endemic	Tree
<i>Pipturus albidus</i>	māmaki	Endemic	Shrub / tree

Between 2,000 and 4,000 feet in elevation only:

<i>Pritchardia beccariana</i>	loulu	Indigenous	Tree
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Below 2,000 feet in elevation only:

<i>Eragrostis variabilis</i>	kāwelu	Endemic	Grass
<i>Pandanus tectorius</i>	hala, screwpine	Indigenous	Tree



Ecological Planting Zones
in Hawaii County

10. Wet
 State of Hawaii Department of Transportation Roads