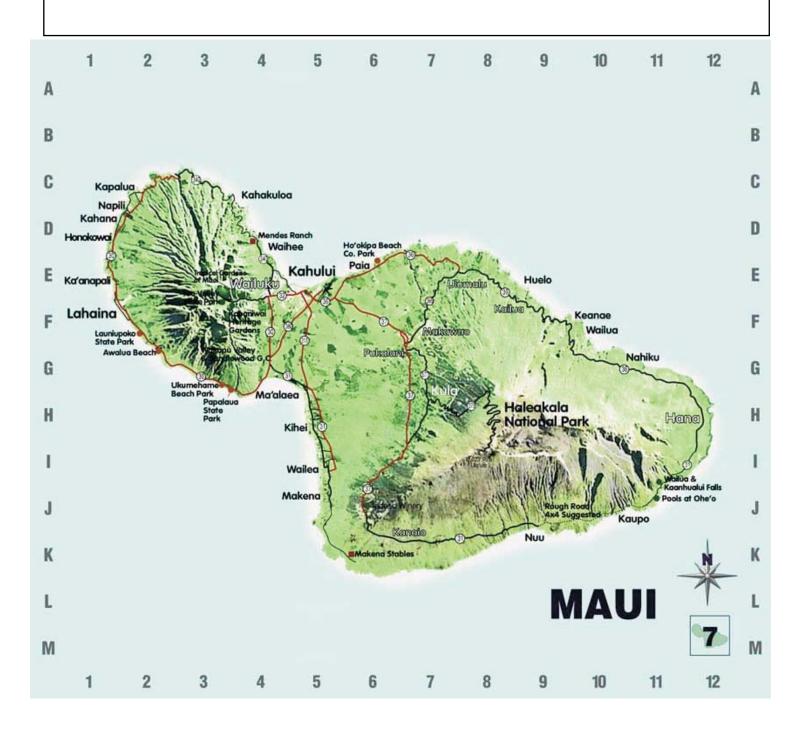
### 347

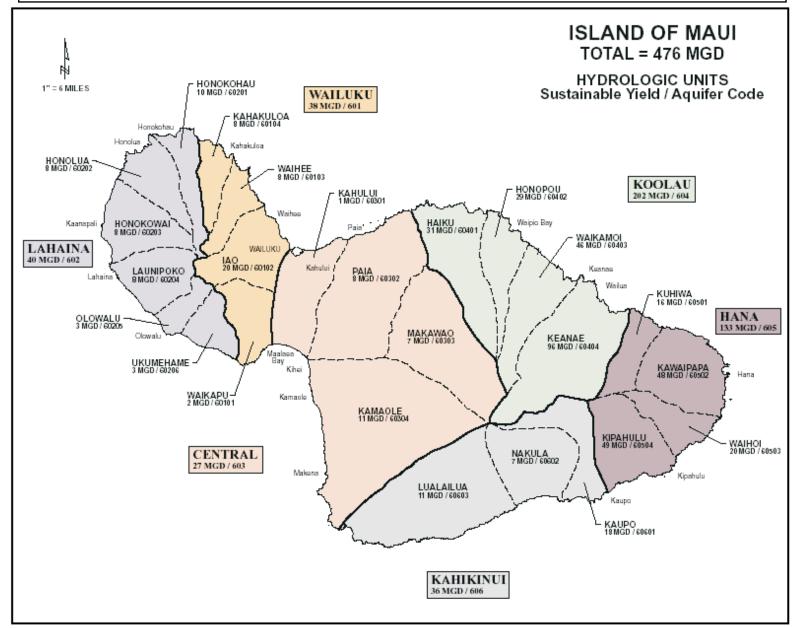
# Appendix: Maui County – Frommer's Hawaii Beach Activity Guide

(http://www.beachactivityguide.com/Maui/Map/

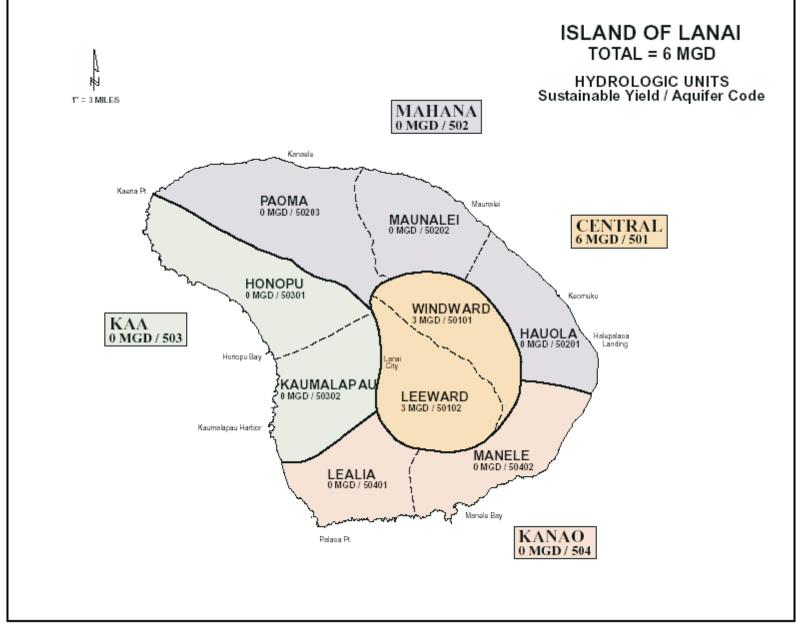
The map below shows some of the more popular places to visit on Maui, in addition to covering several of the community planning areas and major towns.



The map below outlines the hydrologic units or aquifers for Maui and displays their sustainable yield and aquifer code.

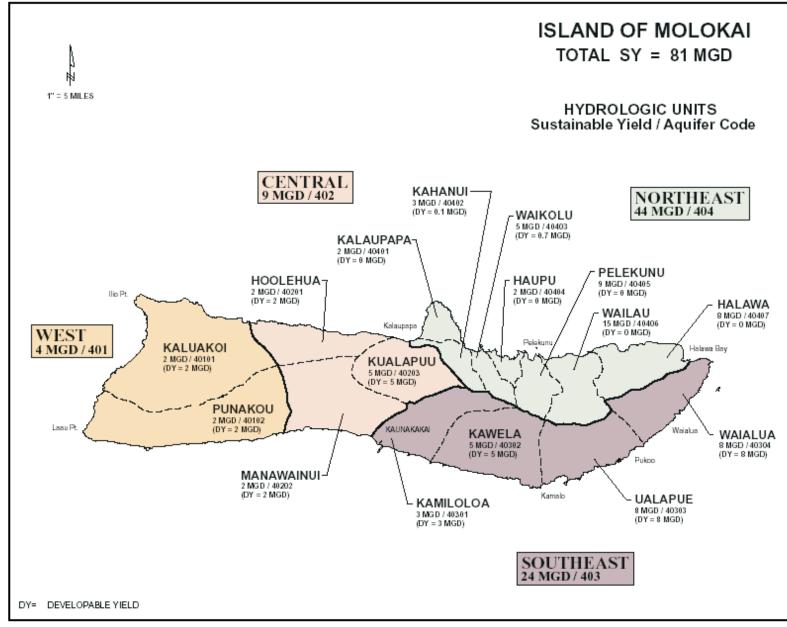


The map below outlines the hydrologic units or aquifers for Lanai and displays their sustainable yield and aquifer code.



10/12/1995

The map outlines aquifers on Molokai and displays their sustainable yield and aquifer code. The 81MGD sustainable yield is for planning purposes.



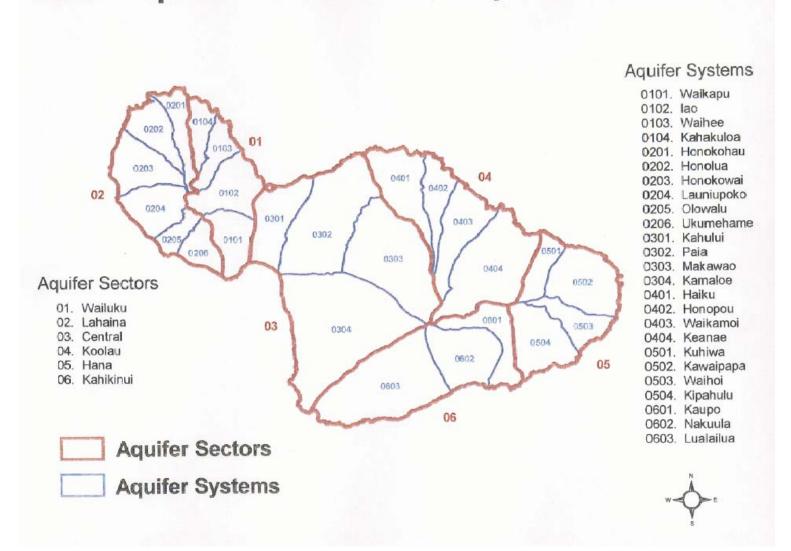
10/17/1996

# Appendix: Maui County – Department of Health – Clean Water Branch

(http://mano.icsd.hawaii.gov/doh/eh/cwb/2000-305b/pdf-files/ch400084.pdf

The map below outlines the aqufer sectors and aquifer systems for the island of Maui.

# Maui Aquifer Sectors and Aquifer Systems



# **Appendix: Maui County – Department of Health – Clean Water Branch**

(http://mano.icsd.hawaii.gov/doh/eh/cwb/2000-305b/pdf-files/ch400084.pdf

The map below outlines the aqufer sectors and aquifer systems for the island of Lanai.

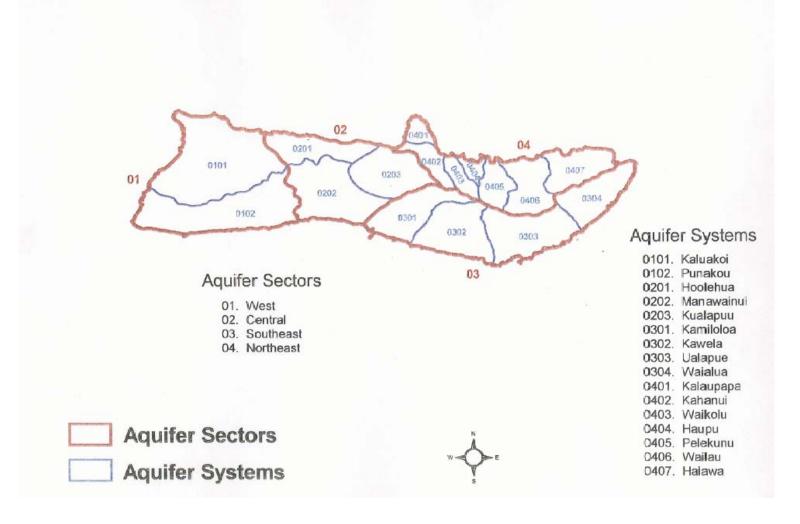
### Lanai Aquifer Sectors and Aquifer Systems 02 Aquifer Systems 0101. Windward 0102. Leeward 0203 0201. Hauloa 0202 0202. Maunalei 0203. Lapaiki 0301. Honopu 0302. Kaumalapau 0401. Kealia 0402. Manele **Aquifer Sectors** 0101 01. Central 02. Mahana 03 03. Kaa 01 0302 04. Manele 0102 0402 0401 **Aquifer Sectors Aquifer Systems**

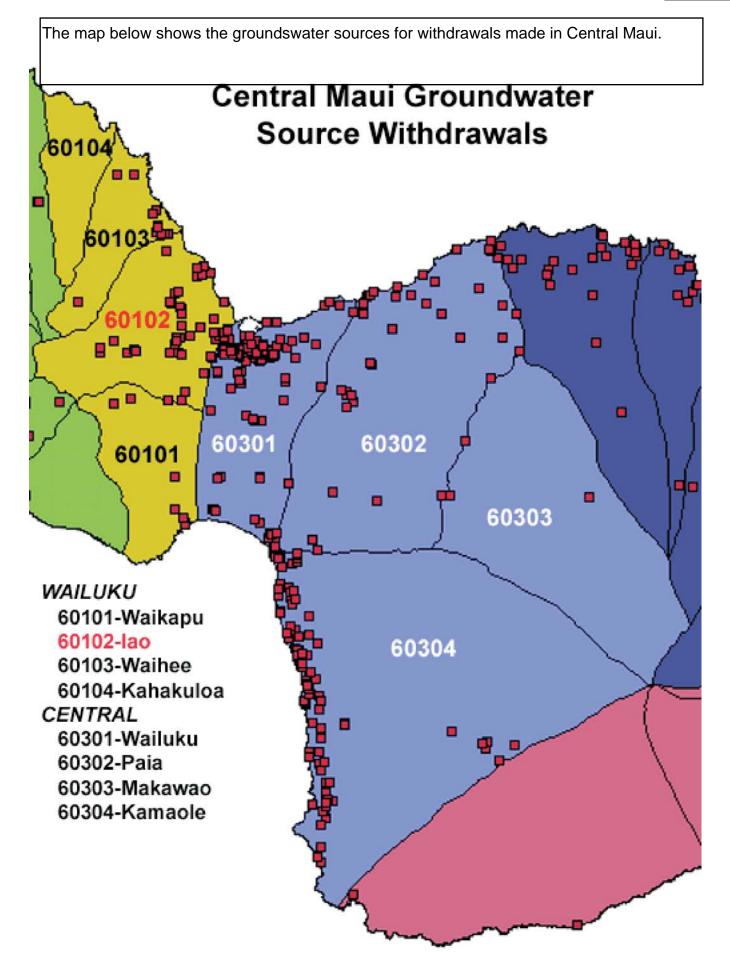
# Appendix: Maui County – Department of Health – Clean Water Branch

(http://mano.icsd.hawaii.gov/doh/eh/cwb/2000-305b/pdf-files/ch400084.pdf

The map below outlines the aqufer sectors and aquifer systems for the island of Molokai.

# Molokai Aquifer Sectors and Aquifer Systems





# Appendix: Maui County – Hawaii Commission On Water Resource Management

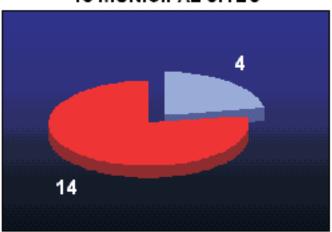
355

(http://www.maui-tomorrow.org/water\_maps1.html

The graphs below illustrate groundwater uses for Central Maui.

### Central Maui Groundwater Uses: Waikapu, Iao, Waihe`e, Kahului, Paia, Makawao, Kamaole Aquifers

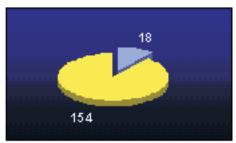
### 18 MUNICIPAL SITES



4 of 18 sources list amount of water withdrawn 9.2 MGD for sites that list withdrawal amount

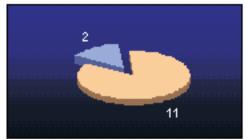
22.83 MGD is total use for Central DWS sources, based on DWS Monthly Source Report. (Note: The State Database has not been updated to list these withdrawals)

### 172 IRRIGATION SITES



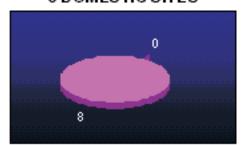
18 sources list amount of water withdrawn 101 MGD for sites that list withdrawal amount.

### 13 INDUSTRIAL SITES



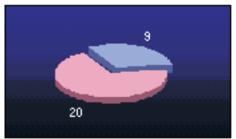
2 sources list amount of water withdrawn 5.9 MGD for sites that list withdrawal amount

### 8 DOMESTIC SITES



0 sources list amount of water withdrawn 0.0 MGD for sites that list withdrawal amount

### 29 UNCLASSIFIED SITES



9 sources listing amount of water withdrawn 79.9 MGD for sites that list withdrawal amount

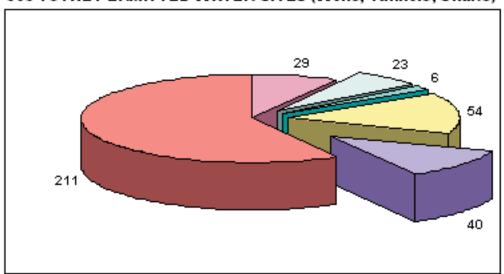
Source: Hawaii Commission on Water Resource Management, with revisions based on Maui DWS sources and other resource documents.

# **Appendix: Maui County – Hawaii Commission On Water Resource Management**

(http://www.maui-tomorrow.org/water\_maps1.html

### Central Maui Groundwater Uses: Waikapu, Iao, Waihe`e, Kahului, Paia, Makawao, Kamaole Aquifers

### 363 TOTAL PERMITTED WATER SITES (Wells, Tunnels, Shafts)



### 123 listed as indicating no pumping.

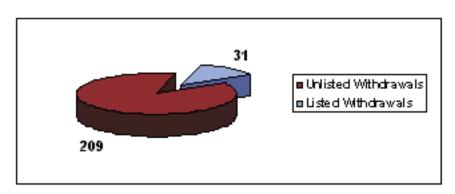
- 23 listed as "Observation"
- 6 listed as "Sealed"
- 54 listed as "Unused"
- 40 Listed as "Other"

### 240 sources likely to be pumping

- 29 listed without use, but likely pumping "(?Use)"
- 211 listed as pumping

NOTE: Hamakuapoko wells listed as "Unused" or without use in State Database, actually pumped an average of 5MG per month for upcountry domestic use Nov 1, 2000 thru Oct. 30, 2001.

Of 240 Central Maui sites likely pumping, the State Database lists amount of water withdrawn for only 31 sources totaling 190 MGD; 209 are unlisted.

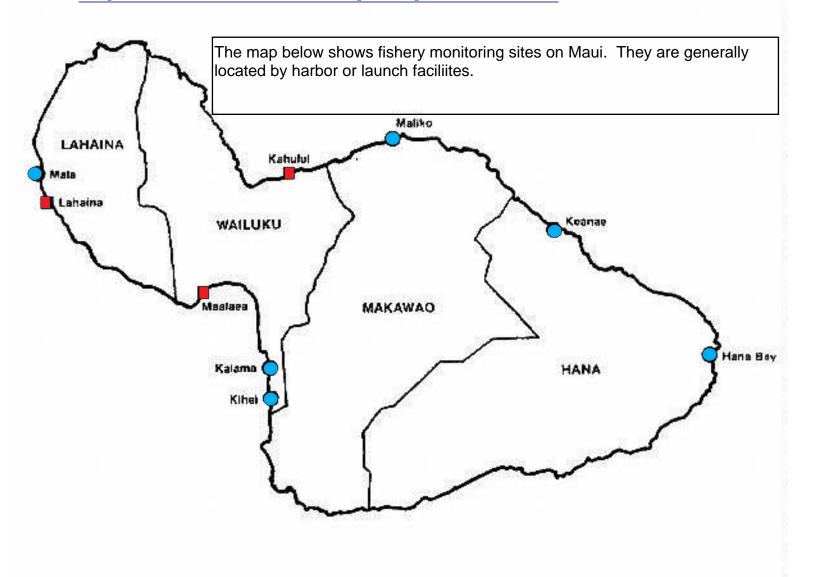


Source: Hawaii Commission on Water Resource Management,

### Appendix: County of Kauai - Fishery Monitoring

Economics Program
http://www.nmfs.hawaii.edu/fmpi/fmep/reef/maui.htm

357

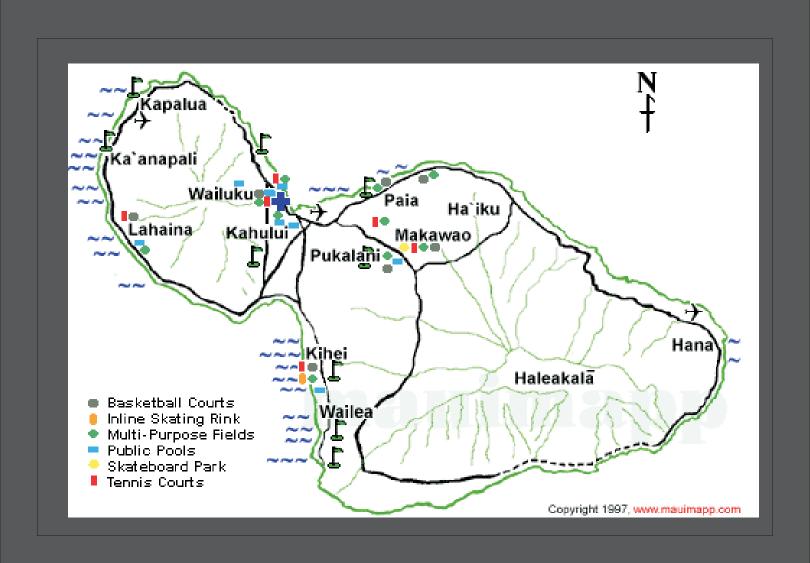


Legend Small Boat Harbor Launch Ramp Only

MAUI

Small boat Harbor Lahina (s) Maalaea (s) Kahului s)	Launch Ramp Only Mala (s) Kalama (c) Kihei (s) Hana Bay (s) Keanae (c) Maliko (s)
--	---

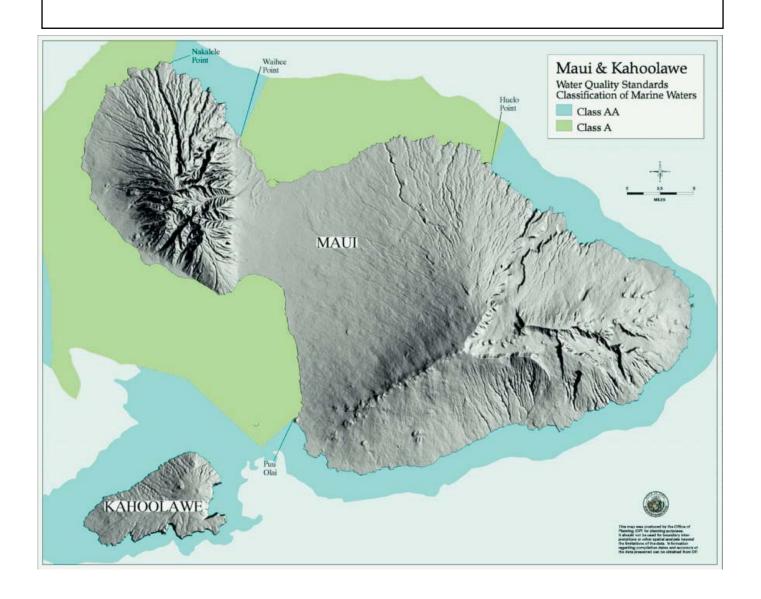
Ownership: c-county p-private s-state 1- primarly commercial Below is a map of some of Maui County's Recreational facilities.



# Appendix: County of Maui - Environmental Planning Office

(http://www.geocities.com/hawaiiepo/mawqc.jpg

The map below illustrates the Class A from Class AA Water Quality Standards around Maui.



### AΑ

Remain in natural state Minimum of pollution Maintain wilderness character

Oceanographic research Support aquatic life Conserve coral reefs Compatible recreation

No zones of mixing (with exceptions)

Α

Support recreation

All uses compatible with recreation and support of aquatic wildlife

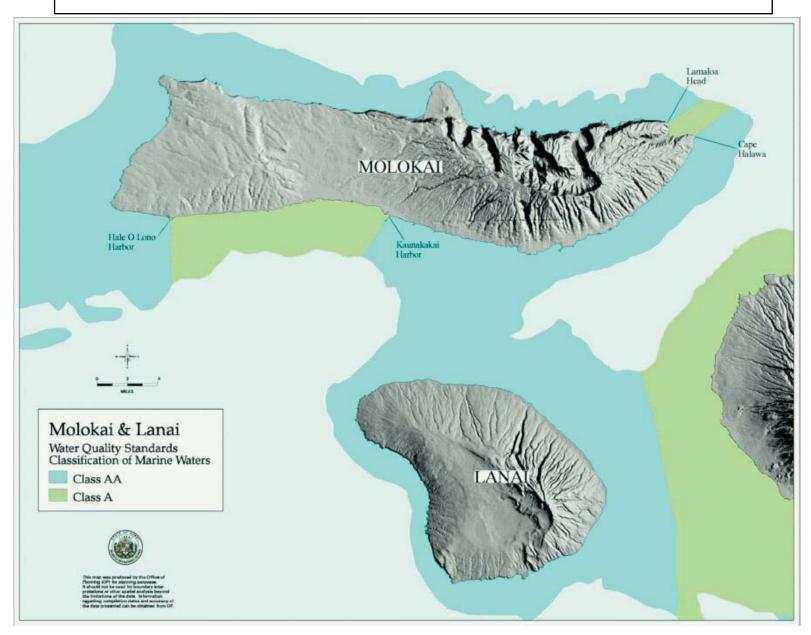
Entering discharge must receive best degree of treatment No new sewage discharges within embayments No new industrial discharges within embayments (with exceptions)

### 360

# **Appendix: County of Maui - Environmental Planning Office**

(http://www.geocities.com/hawaiiepo/molawqc.jpg

The map below illustrates the Class A from Class AA Water Quality Standards around Molokai.



### AΑ

Remain in natural state Minimum of pollution Maintain wilderness character

Oceanographic research Support aquatic life Conserve coral reefs Compatible recreation

No zones of mixing (with exceptions)

Α

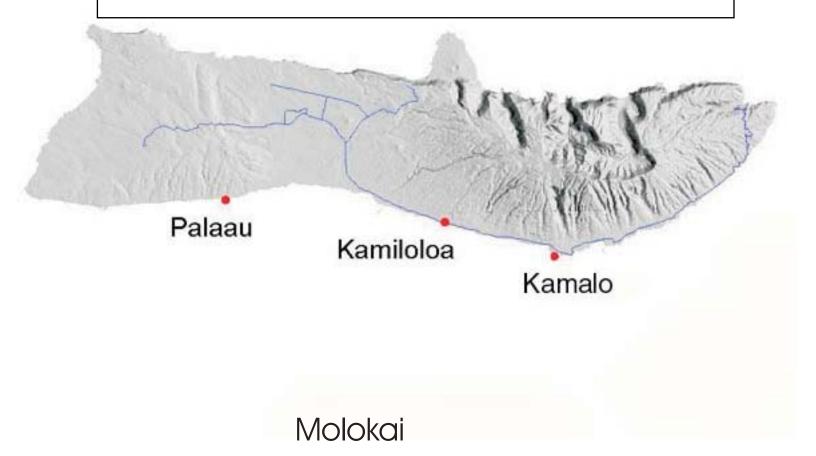
Support recreation

All uses compatible with recreation and support of aquatic wildlife

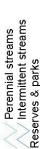
Entering discharge must receive best degree of treatment No new sewage discharges within embayments No new industrial discharges within embayments (with exceptions)

## Appendix: County of Maui - Coral Reef Assessment and Monitoring Program http://cramp.wcc.hawaii.edu/Study\_Sites/Molokai/

Shown below are the three coral reef assessment and monitoring sites that are part of CRAMP on Molokai.



# Maui Legend



AHIHI-KINAU NATURAL AREA RESERVE HALEAKALA NATIONAL PARK

HALEKII-PIHANA HEIAUS STATE MONUMENT

HANA FOREST RESERVE HANAWI NATURAL AREA RESERVE HONOLUA-MOKULEIA MARINE LIFE CONSERVATION DISTRICT

AO VALLEY STATE MONUMENT KAHAKULOA GAME MANAGEMENT AREA

KANAHA POND WILDLIFE SANCTUARY KAHIKINUI FOREST RESERVE

KANAIO NATURAL AREA RESERVE KAUMAHINA STATE WAYSIDE

KIPAHULU FOREST RESERVE KOOLAU FOREST RESERVE KULA FOREST RESERVE

LIHAU NATURAL AREA RESERVE MAKAWAO FOREST RESERVE

MAKENA STATE PARK

POLIPOLI SPRING STATE RECREATION AREA PAUWALU POINT WILDLIFE SANCTUARY

PUAA KAA STATE WAYSIDE

WAIHOU SPRING FOREST RESERVE WAIANAPANAPA STATE PARK

**WAIKAMOI PRESERVE** 

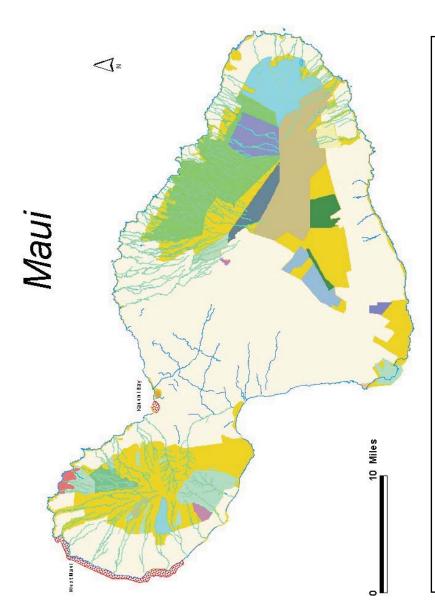
WAILUA VALLEY STATE WAYSIDE

WEST MAUI FOREST RESERVE

WEST MAUI NATURAL AREA RESERVE (HONOKOWAI SEC) WEST MAUI NATURAL AREA RESERVE (KAHAKULOA SEC) WEST MAUI NATURAL AREA RESERVE (PANAEWA SEC)

Conservation land use district

Water Quality Limited Segmnets



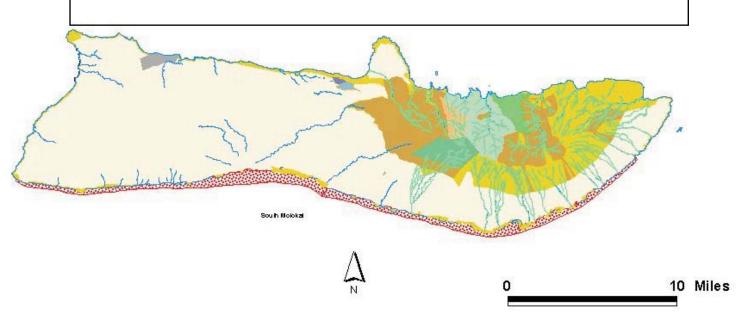
The map above illustrates reserves and sanctuaries around Maui.

Appendix: County of Maui - Environmental Planning Office

(http://www.geocities.com/hawaiiepo/maui.jpg

# Molokai

The map below illustrates reserves and sanctuaries around Molokai.



### Molokai Legend

Perennial streams
Intermittent streams

Reserves & Parks

BIRD SANCTUARY

HUELO BIRD SANCTUARY

KAMILOLOA PLANT SANCTUARY

KAMUKOU PRESERVE

KANAHA ROCK BIRD SANCTUARY

KUKUIPALAOA BIRD SANCTUARY

MOKAPU BIRD SANCTUARY

MOKOHOLA BIRD SANCTUARY

MOKUHOONIKI BIRD SANCTUARY

MOKUMANU BIRD SANCTUARY

MOLOKAI FOREST RESERVE

MOLOKAI FOREST RESERVE?

MOOMOMI DUNES PRESERVE

OKALA BIRD SANCTUARY

OLOKUI NATURAL AREA RESERVE

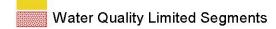
PALAAU STATE PARK

PAUONUAKEA BIRD SANCTUARY

PELEKUNU PRESERVE

PUU ALII NATURAL AREA RESERVE

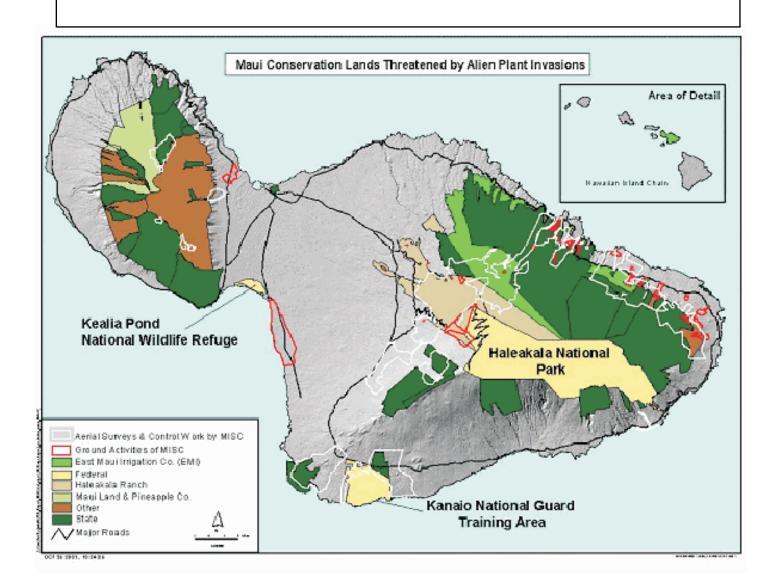
Conservation land use district

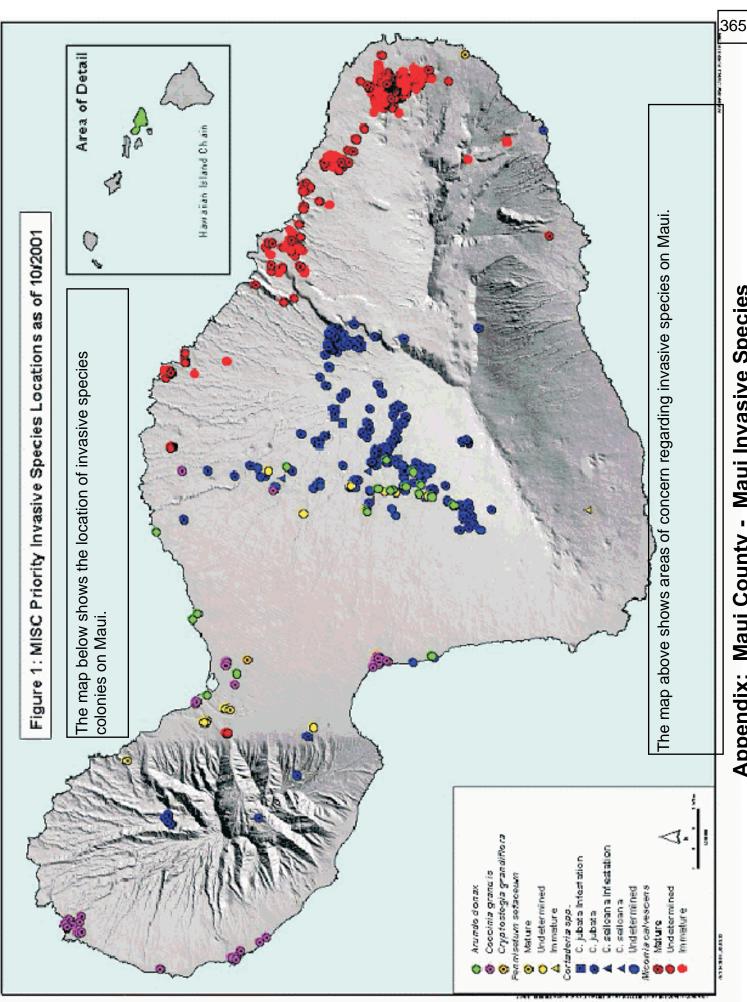


# **Appendix: Maui County – Maui Invasive Species Committee**

(http://www.hear.org/misc/pdfs/nfwf2002fundingcycle\_miscproposal\_withimages.pdf

The map below outlines areas of concern regarding invasive species on Maui.





Appendix: Maui County - Maui Invasive Species Committee

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# TABLE OF THREATENED, PROPOSED ENDANGERED, AND ENDANGERED SPECIES BENEFITED BY MISC ACTION PLAN

The table lists the 79 current federally threatened and endangered plant species of Maui and indicates which will have their survival negatively affected by uncontrolled spread of the six primary target weed species.

Legend: T = threatened; E = endangered; M = present on Maui; MX = once present on Maui, no populations currently known, but reintroduction from other islands possible and/or possibility still exists for discovery of unknown populations

				THREATS	ATS	
SPECIES	FEDERAL	STATUS	Fountain	Pampas	ίν	Miconia
	STATUS	ON MAUI	grass	grass	gourd	
Abutilon menziesii	Е	M	Yes	٥N	sək	No
Acaena exigna	Е	M	No	Yes	٥N	Yes
Alectryon macrococcus var. auwahiensis	Е	M	Yes	٥N	sək	No
Alectryon macrococcus var. macrococcus	Е	M	No	Yes	sək	Yes
Argyroxiphium sandwicense ssp.	1	M	Yes?	Yes	٥N	No
macrocephalum						
Asplenium fragile var. insulare	Е	MX	No	Yes	٥N	No
Bidens micrantha ssp. kalealaha	Е	M	Yes	Yes	٥N	No
Bonamia menziesii	Е	M	Yes	No?	Yes	No
Brighamia rockii	Е	MX	٤	ċ	ċ	ċ
Caesalpinia kavaiensis	Е	MX	Yes	Yes	Yes	Yes
Cenchrus agrimonioides var. agrimonioides	Е	M	Yes	No?	Yes	No
Centaunum sebaeoides	Е	M	Yes	No	Yes	Yes
Clermontia lindseyana	Е	M	No	Yes	٥N	Yes?
Clermontia oblongifolia ssp. mauiensis	Е	M	No	Yes	٥N	Yes
Clermontia peleana ssp. singuliflora	Е	MX	No	Yes	٥N	Yes
				THREATS	ATS	

Maul Invasive Species Committee: 2002 NFWF-PTI Proposal

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October 2001

Appendix: Maui County - Maui Invasive Species

(http://www.hear.org/misc/pdfs/nfwf2002fundingcycle\_miscproposal\_withimages.pdf

Committee