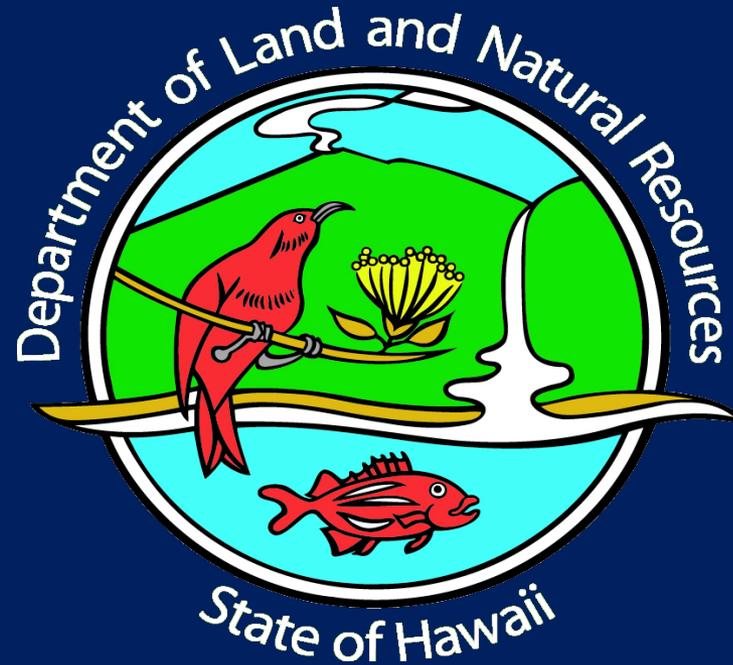


State Water Projects Plan



Outline

- Background
- Hawaii Water Plan
- State Water Projects Plan

Background

- State Constitution (Article XI, Section 7)
- State Water Code (Hawaii Revised Statutes, Chapter 174C).
- Commission on Water Resource Management (CWRM).
- Hawaii Water Plan.

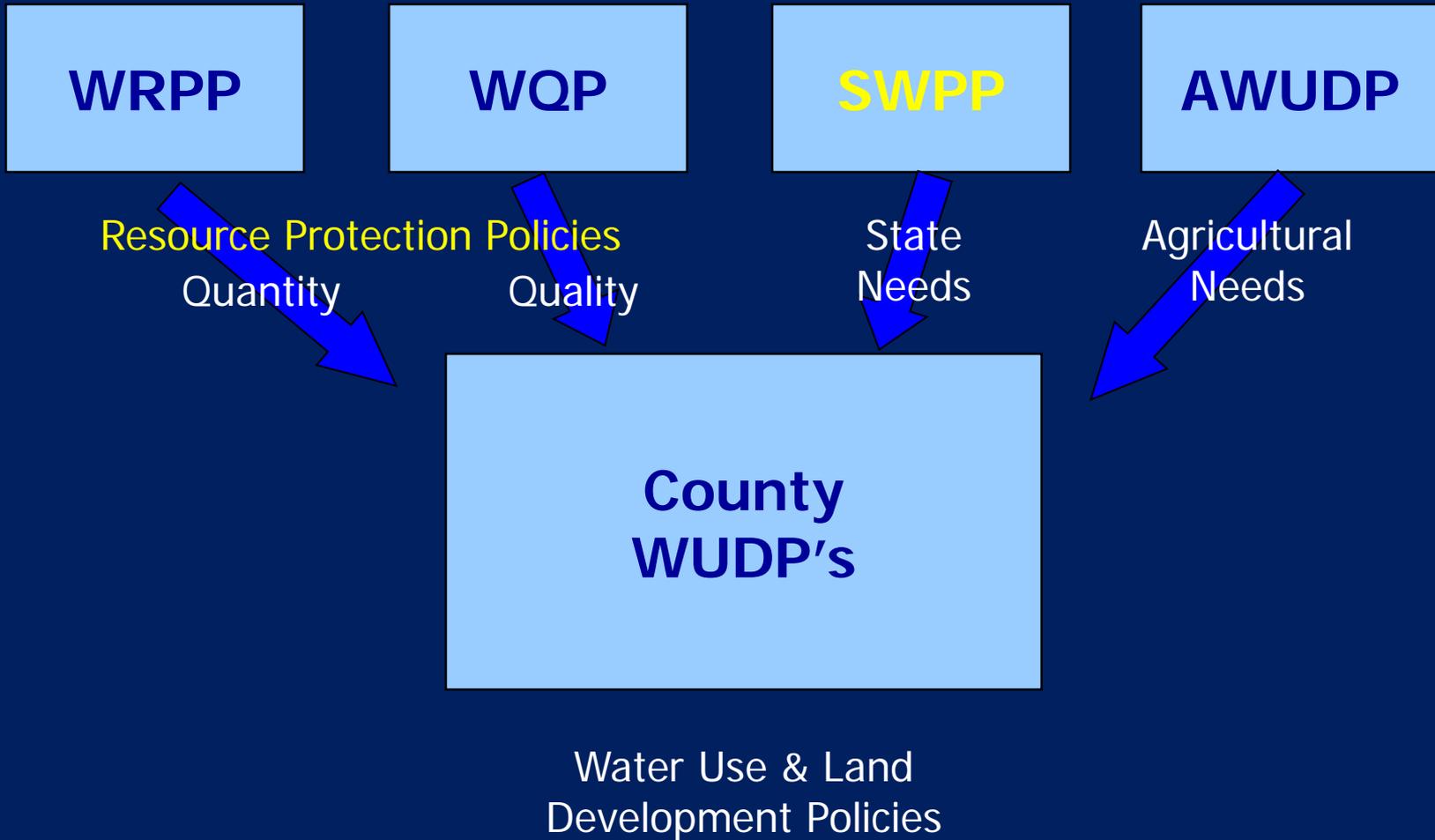
The Hawaii Water Plan

The Hawaii Water Plan serves as a long-range guide for water resource management.

It consists of five component parts:

- Water Resources Protection Plan (WRPP)
- Water Quality Plan (WQP)
- **State Water Projects Plan (SWPP)**
- Agricultural Water Use and Development Plan (AWUDP)
- Water Use and Development Plan (WUDP)
for each County

Hawaii Water Plan



State Water Projects Plan

Primary Objective: To provide a framework for planning and implementation of water development programs to meet projected water demands for State projects.

Other objectives include:

- Inventory of existing State Water Systems
- Inventory of proposed State Projects and their water requirements
- Inventory of State Department water conservation programs
- Develop a water development strategy
- Incorporate the Agricultural Water Use and Development Plan
- Consistency with the WRPP and WQP, and coordination with the Counties' WUDP.

Elements of Study

- Inventory of Existing Water Resources
- Inventory of Proposed State Projects
- Assessment of Future Water Requirements
- SWPP Water Development Strategy

SWPP Water Development Strategy

- Develop options:
 1. Analyze existing and/or planned State water sources/systems
 2. Revisit County/private water agreements
 3. Review Existing master plans.

SWPP Project Data Collection

- Standard survey packet
- The survey packet follows and consists of seven parts:
 1. State Water Systems (Part 1A)
 2. State Wells (Part 1B)
 3. State Diversions (Part 1C)
 4. Water Conservation Programs (Part 2)
 5. Projected Water Demand for State Projects (Part 3)
 6. Primary Water Source Development Plans for Proposed State Projects (Part 4A)
 7. Alternate Water Source Development Plans for Proposed State Projects (Part 4B)

SWPP Updates

- SWPP Update of all State Departments completed in 2003
- SWPP Update of DHHL, Statewide – In Progress
- SWPP Update of all State Departments, Statewide – In Progress
- SWPP Update of all State Departments in North Kona – In Progress

2003 SWPP Update Results

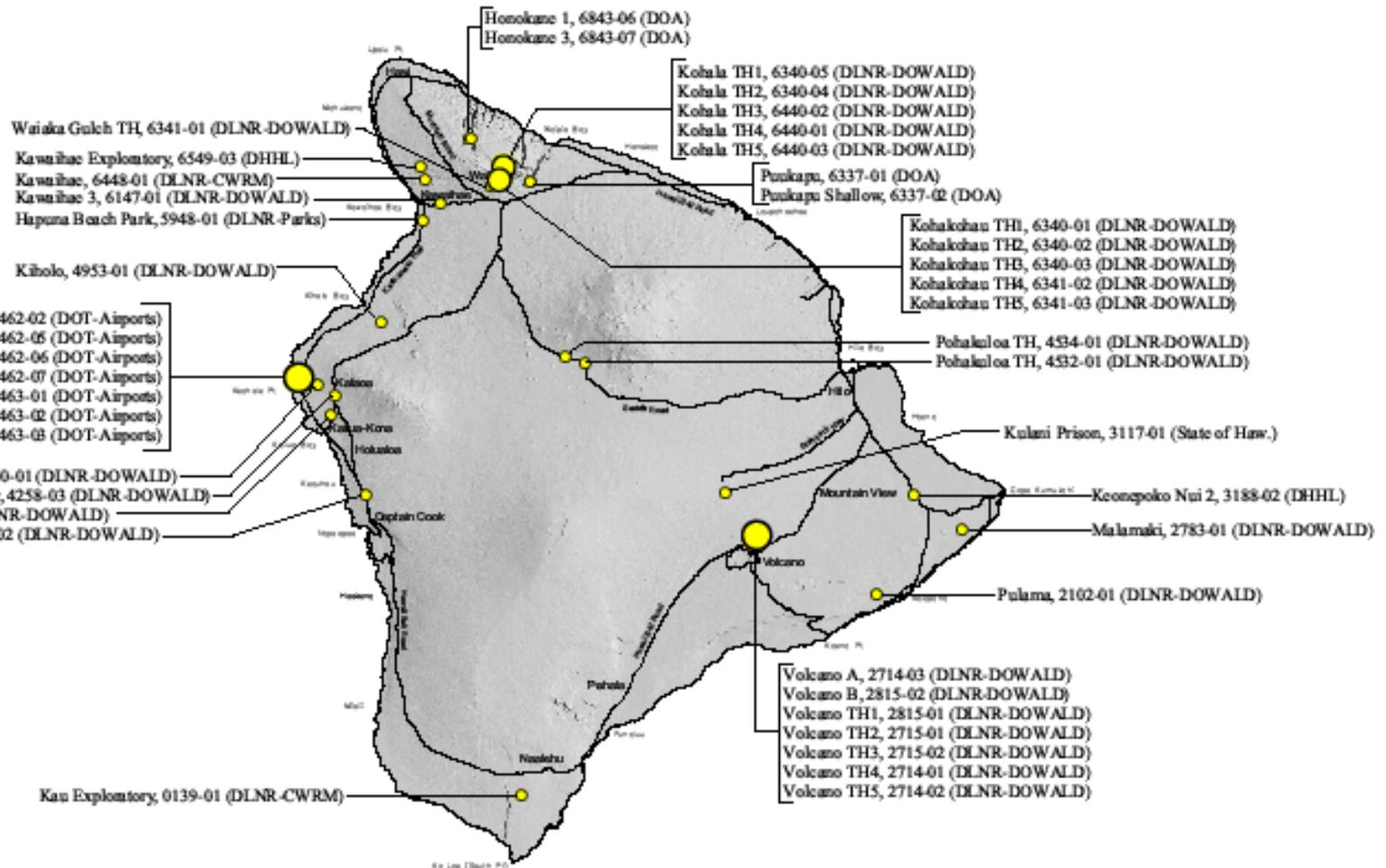
- Inventory of Existing Water Resources
- 20 Year Planning (Horizon)
- Total Demands
- Unmet Demands

Inventory of Existing Water Resources*

The State owns/operates:

- 226 existing wells
- 54 stream diversions
- 36 water systems

*Based on data from 2003 SWPP Update



Dept. of Land and Natural Resources
Land Division
 Engineering Branch
 Commission on Water Resource Management



LEGEND:

- State Wells, State Well No., (State Dept.)
- Major Highways/Roads

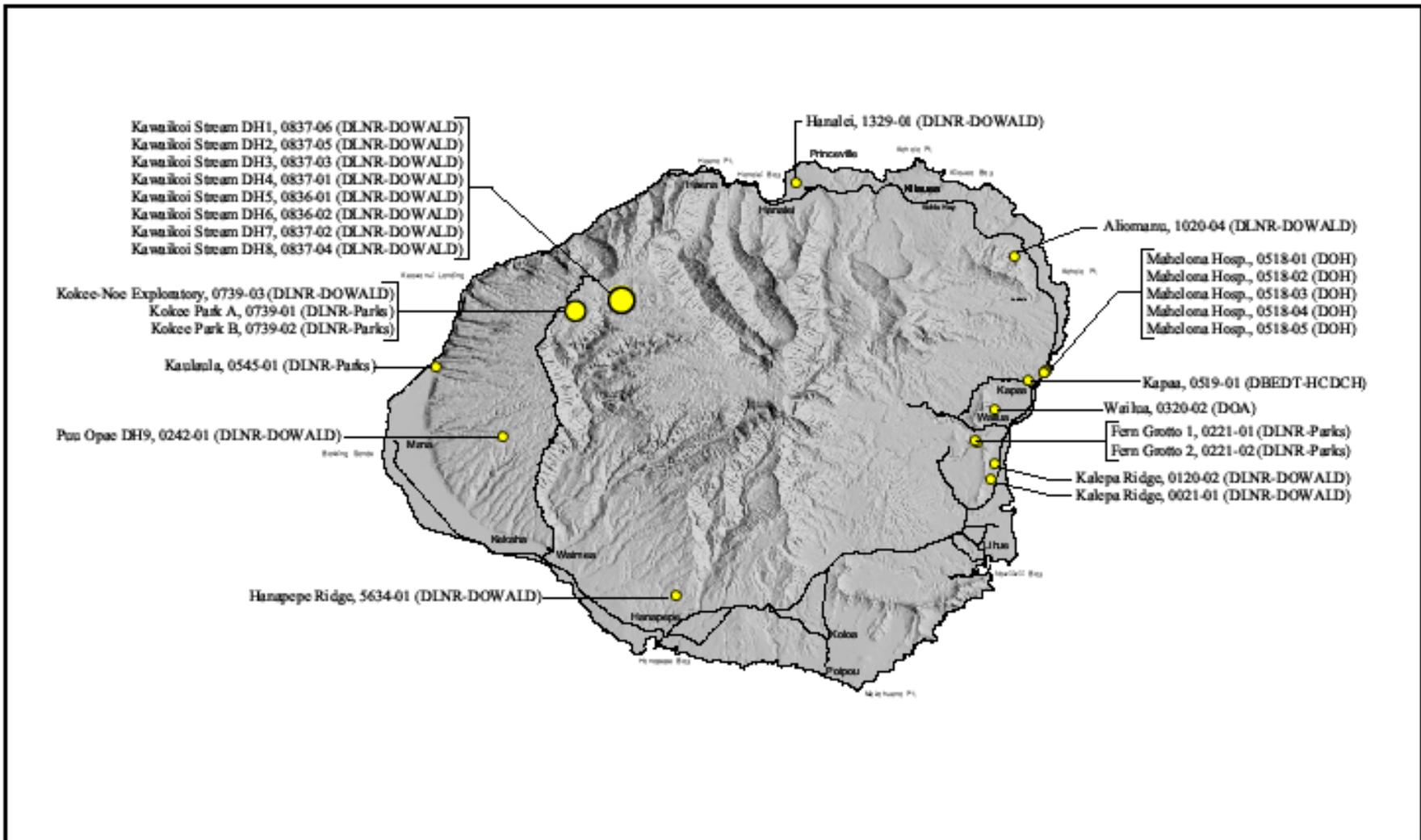
State Water Projects Plan
EXISTING REGISTERED STATE WELLS - HAWAII
FIGURE 2.1

Date: February 2003

1300 Kapiolani Boulevard

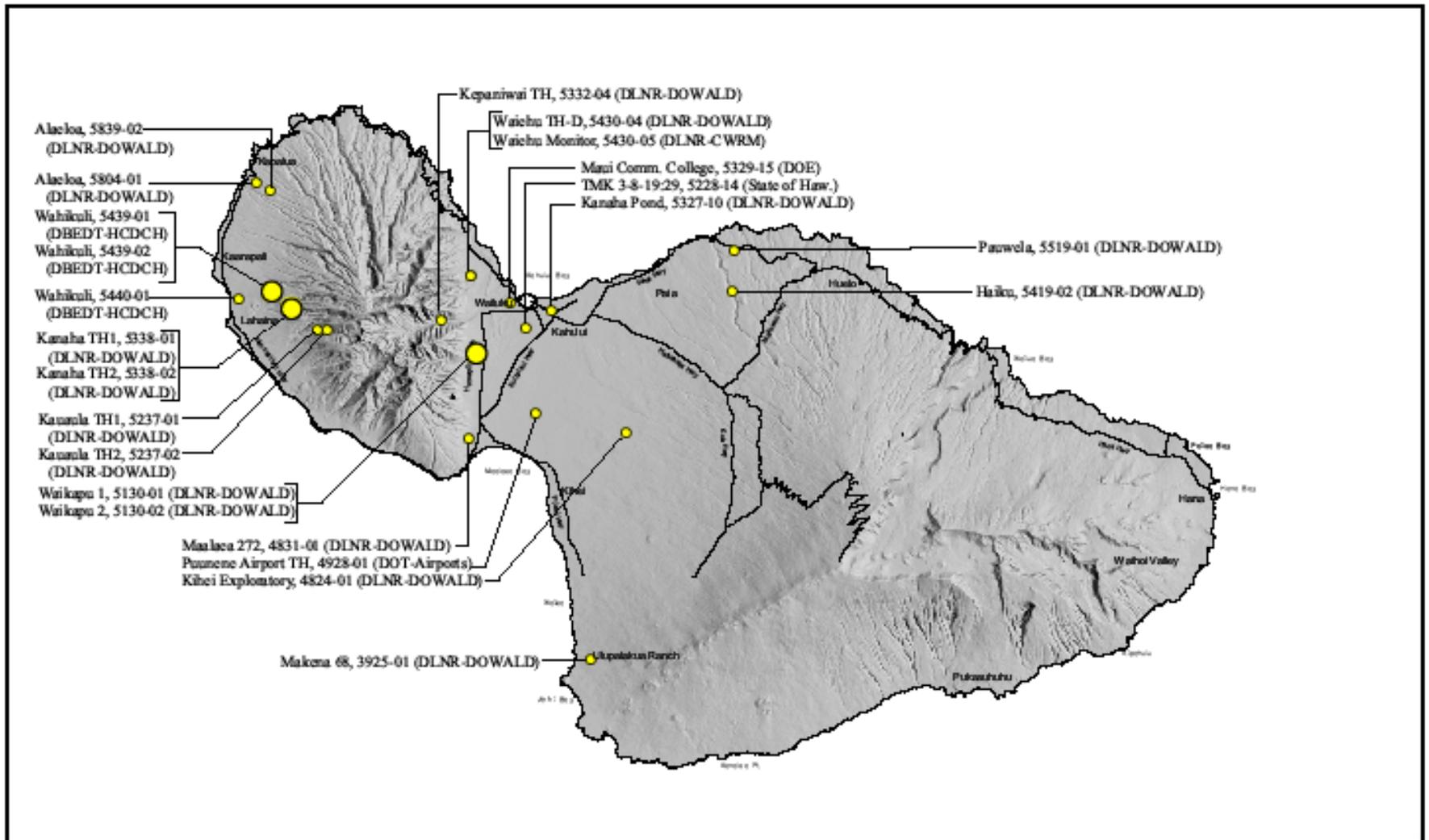
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LEGEND:

- State Wells, State Well No., (State Dept.)
- Major Highways/Roads



Dept. of Land and Natural Resources
Land Division
 Engineering Branch
 Commission on Water Resource Management



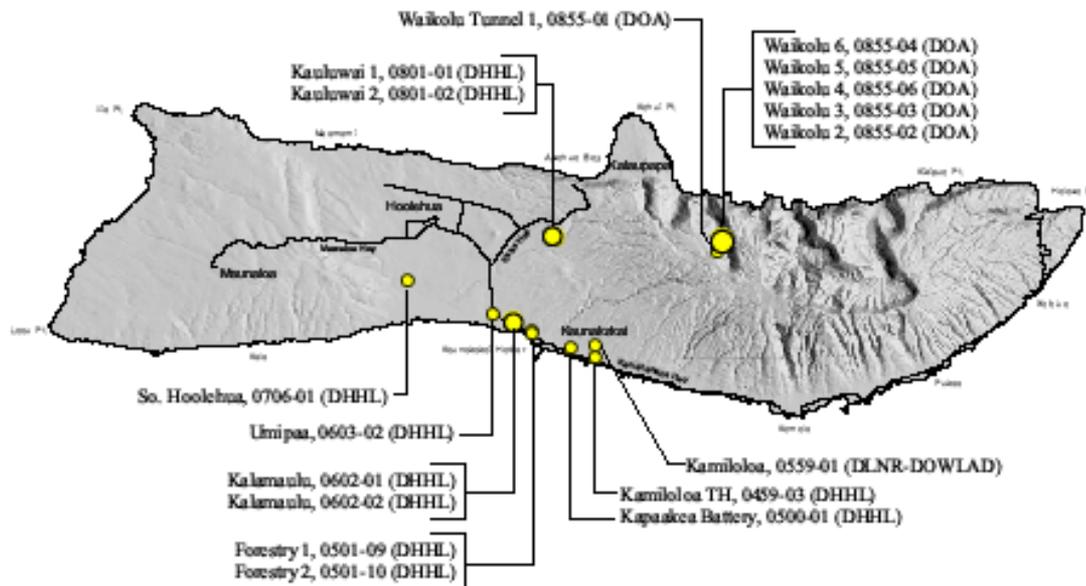
LEGEND:

- State Wells, State Well No., (State Dept.)
- Major Highways/Roads

State Water Projects Plan
EXISTING REGISTERED STATE WELLS - MAUI
FIGURE 2.3

Date: February 2003

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Land Division
Engineering Branch
Commission on Water Resource Management



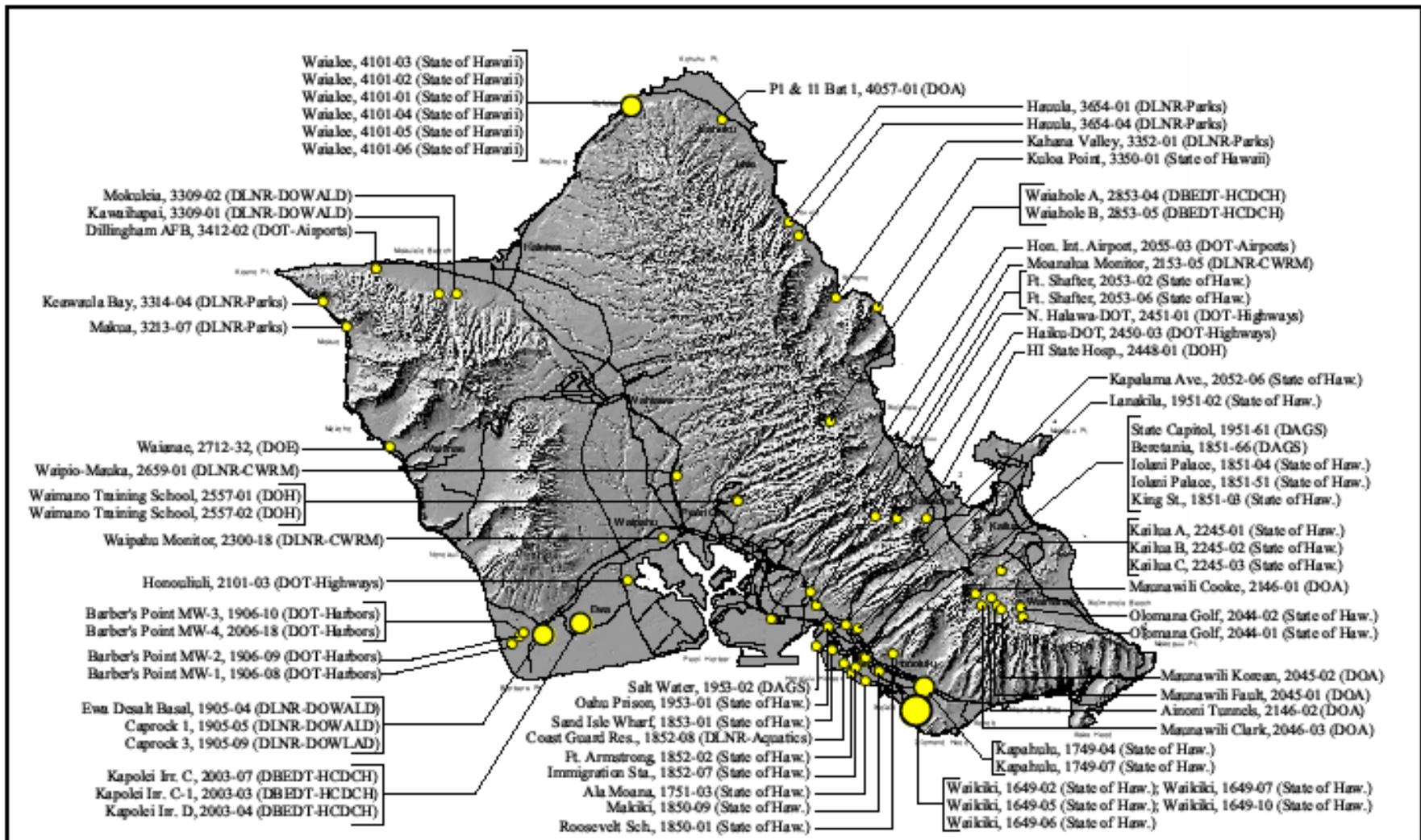
LEGEND:

- State Wells, State Well No., (State Dept.)
- Major Highways/Roads

State Water Projects Plan
EXISTING REGISTERED STATE WELLS - MOLOKAI
FIGURE 2.4

Date: February 2003

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 Natural Resources
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 Management



LEGEND:
 ● State Wells, State Well No., (State Dept.)
 — Major Highways/Roads

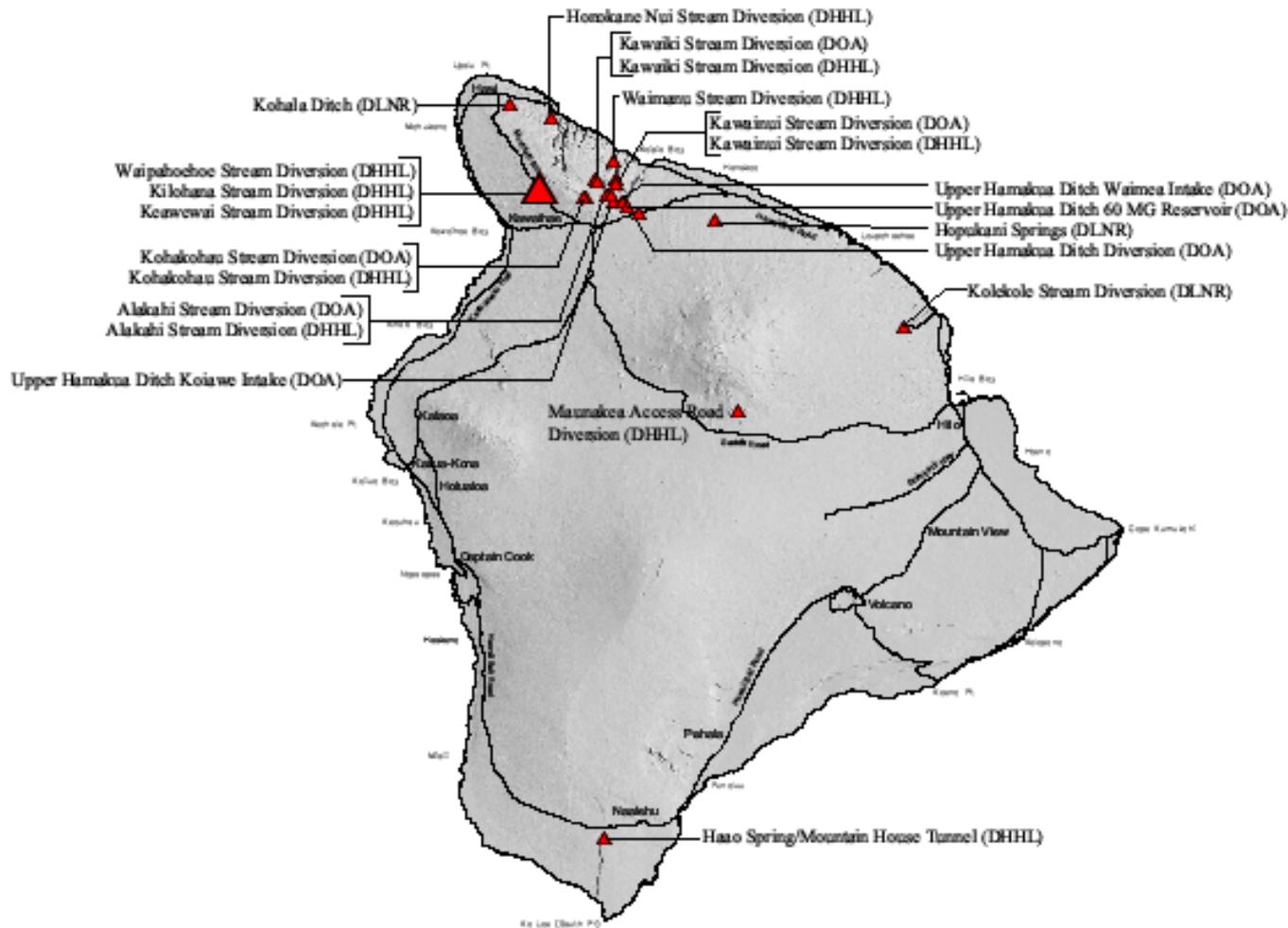
State Water Projects Plan
EXISTING REGISTERED STATE WELLS - OAHU
FIGURE 2.5

Date: February 2003

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Dept. of Land and
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 Engineering Branch
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LEGEND:
 ▲ State Stream Diversions (State Dept.)
 — Major Highways/Roads

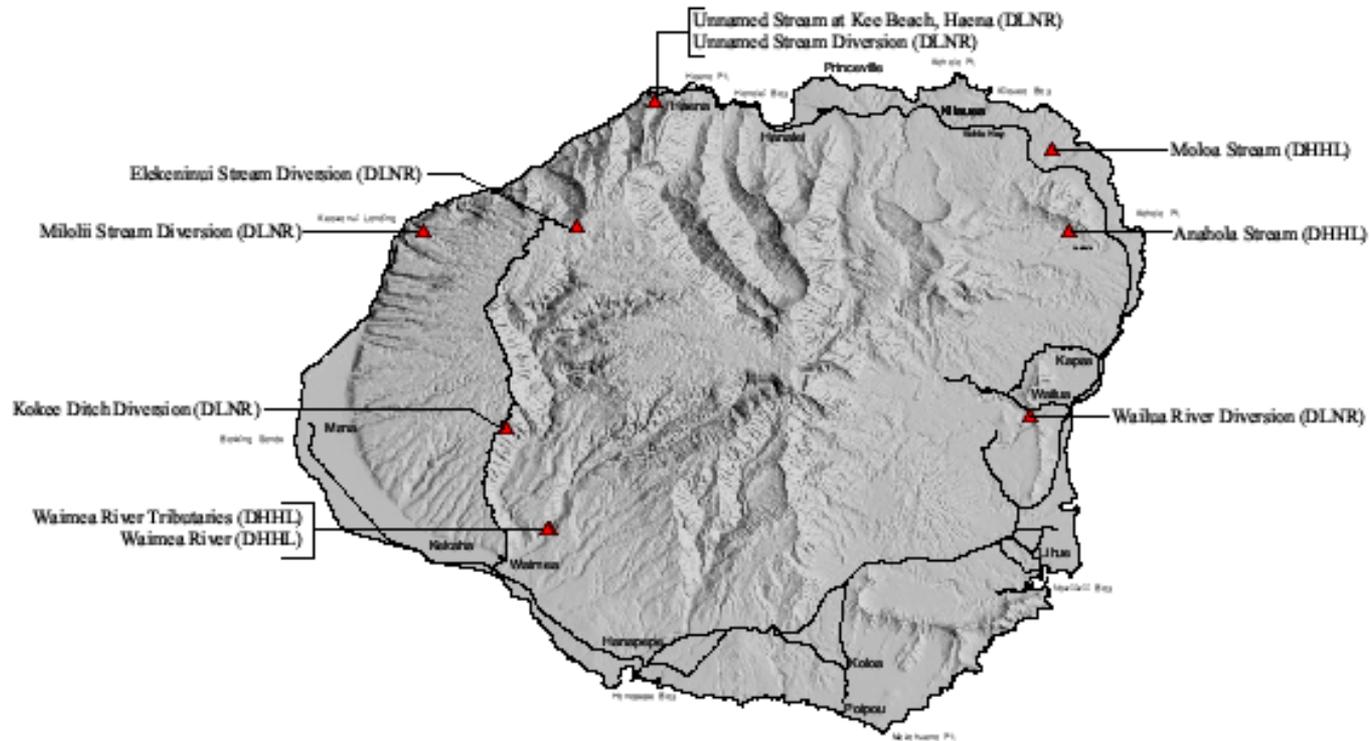
State Water Projects Plan
EXISTING STATE STREAM DIVERSIONS - HAWAII
FIGURE 2.6

Date: February 2003

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LEGEND:
 ▲ State Stream Diversions (State Dept.)
 — Major Highways/Roads

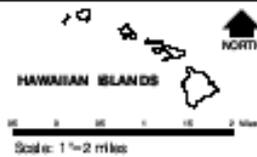
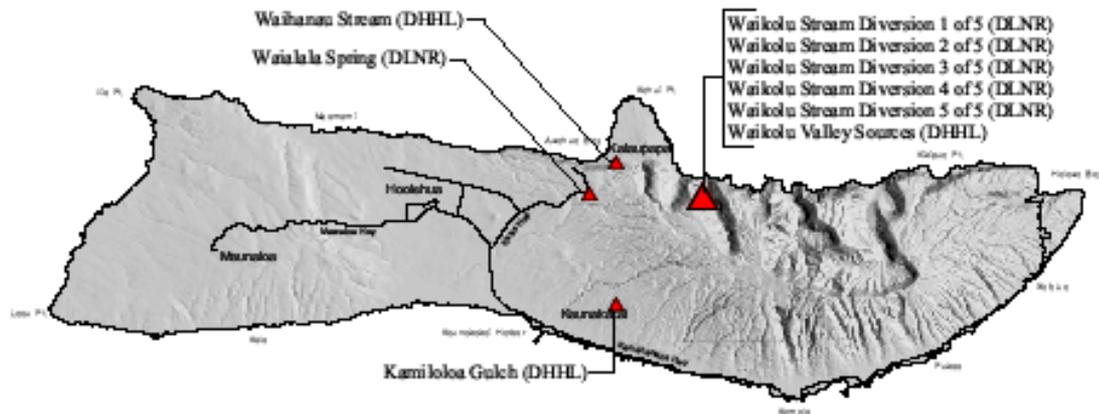
State Water Projects Plan
EXISTING STATE STREAM DIVERSIONS - KAUAI
FIGURE 2.7

Date: February 2003

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LEGEND:
 ▲ State Stream Diversions (State Dept.)
 — Major Highways/Roads

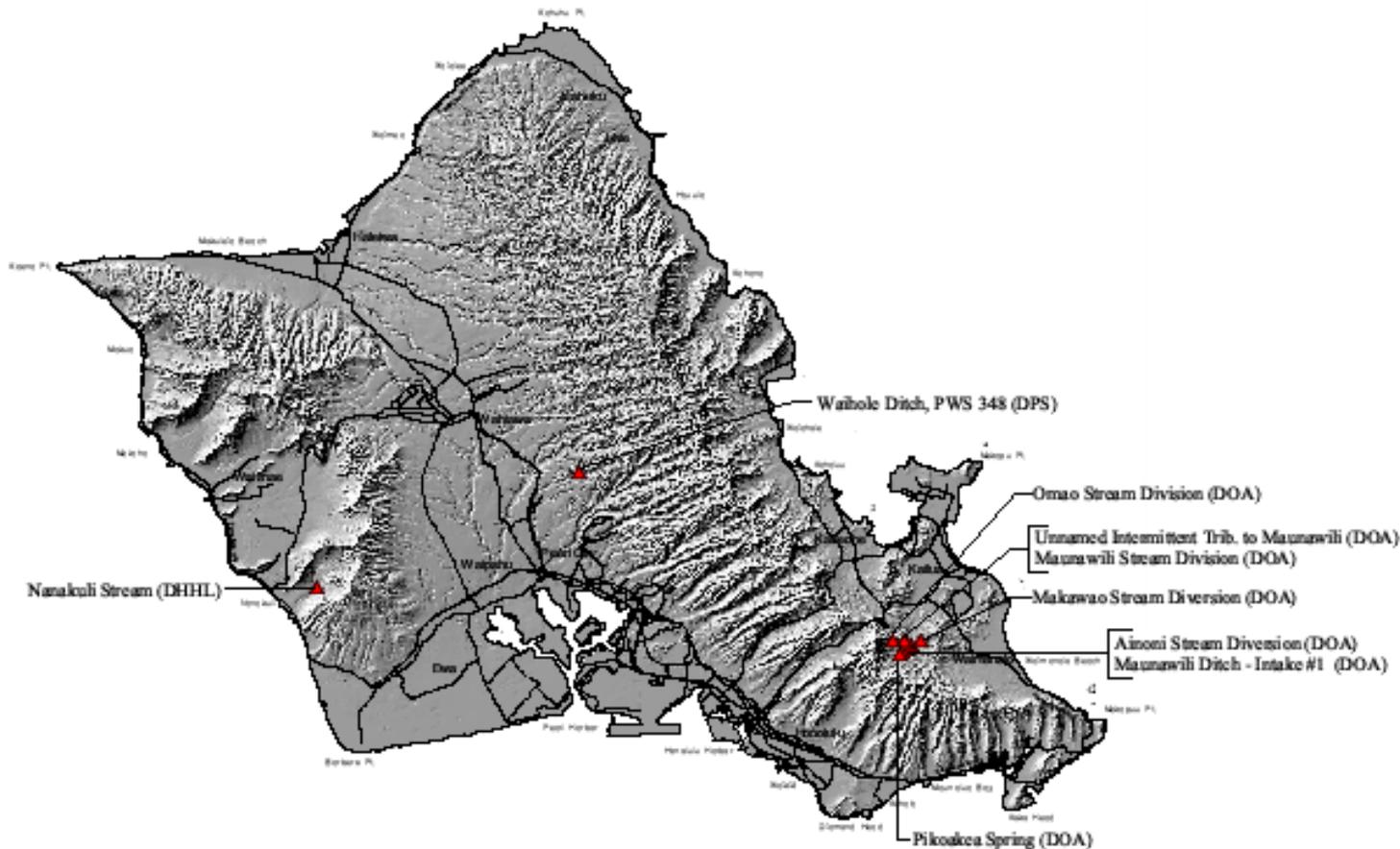
State Water Projects Plan
EXISTING STATE STREAM DIVERSIONS - MOLOKAI
FIGURE 2.9

Date: February 2003

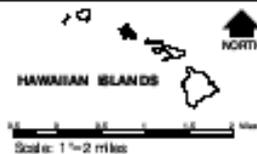
1300 Kapiolani Boulevard

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LEGEND:
 ▲ State Stream Diversions (State Dept.)
 — Major Highways/Roads

State Water Projects Plan
EXISTING STATE STREAM DIVERSIONS - OAHU
FIGURE 2.10

Date: February 2003

1300 Kapiolani Boulevard

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Table 2.1
Water Systems Owned or Operated by the State

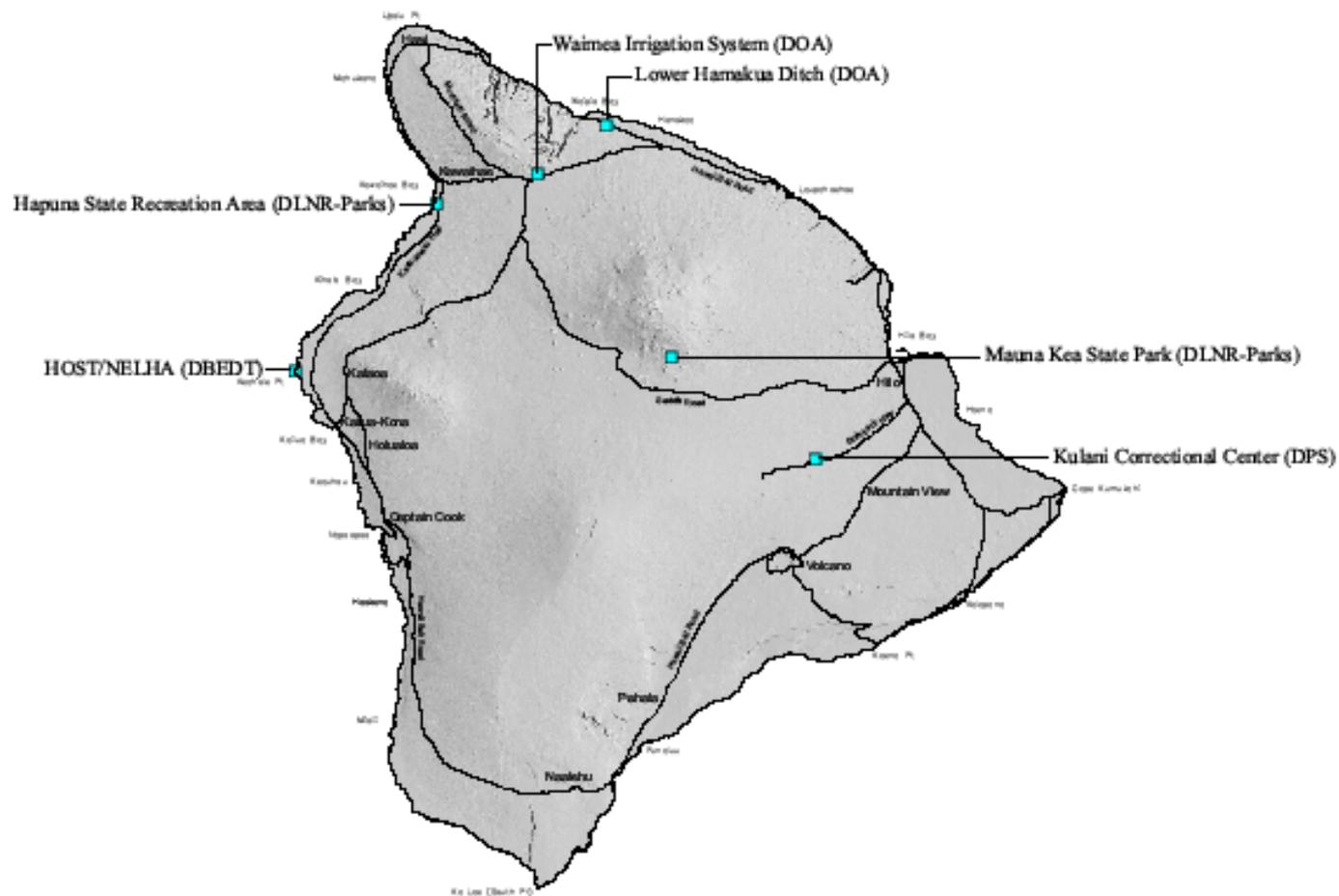
Water System Name	State Agency	Island	Primary Use	State Owned	State Operated
Lower Hamakua Ditch	DOA	Hawaii	Irrigation	No, KSBE, & Other Private	Yes
Waimea Irrigation System	DOA	Hawaii	Irrigation	Yes	Yes
Kekaha Irrigation System	DOA	Kauai	Irrigation	Yes, Source owned by Kekaha Sugar Plantation	Yes *
Molokai Irrigation System	DOA	Molokai	Irrigation	Yes	Yes
Kahuku Irrigation System	DOA	Oahu	Irrigation	Yes	Yes *
Waiahole Ditch	Ag. Bus. Develop. Corp.	Oahu	Nonpotable	Yes	Yes
Waimanalo Irrigation System	DOA	Oahu	Irrigation	Yes	Yes
NELHA	DBEDT	Hawaii	Potable	Yes, Source provided by County, DWS	Yes
Waiahole Water System	DBEDT	Oahu	Potable	Yes	Yes *
Anahola Water System	DHHL	Kauai	Potable	Yes	Yes
Hoolehna Water System	DHHL	Molokai	Potable	Yes	Yes
Hawaii State Hospital	DOH	Oahu	Potable	Yes, Source provided by BWS	Yes
Waimano Training School	DOH	Oahu	Potable	Yes	Yes
Hawaii Youth Correctional Facility	DHS	Oahu	Potable	Yes, Source provided by BWS	Yes
Hapuna SRA	DLNR	Hawaii	Nonpotable	Yes	Yes
Mauna Kea SP	DLNR	Hawaii	Potable	Yes	Yes
Haena SP	DLNR	Kauai	Nonpotable	Yes	Yes
Kokee SP	DLNR	Kauai	Potable	Yes	Yes
Na Pali Coast SP	DLNR	Kauai	Nonpotable	Yes	Yes
Pohiale SP	DLNR	Kauai	Potable	Yes	Yes

Note: * State water system operated by private contractor, managed by the State

Table 2.1 (continued)
Water Systems Owned or Operated by the State

Water System Name	State Agency	Island	Primary Use	State Owned	State Operated
Waihua River SP	DLNR	Kauai	Nonpotable	Yes	Yes
Waimea Canyon SP	DLNR	Kauai	Nonpotable	Yes	Yes
Kaunahina SW	DLNR	Maui	Nonpotable	Yes	Yes
Polipoli Springs SRA	DLNR	Maui	Nonpotable	Yes	Yes
Puaa Kaa SW	DLNR	Maui	Nonpotable	Yes	Yes
Iao Valley SP	DLNR	Maui	Nonpotable	Yes	Yes
Waialala SP	DLNR	Molokai	Potable	Yes	Yes
Kaena Point SP - Leeward	DLNR	Oahu	Nonpotable	Yes	Yes
Kahana Valley SP	DLNR	Oahu	Potable	Yes	Yes
Keaiwa Heiau SRA	DLNR	Oahu	Potable	Yes	Yes
Makiki-Tantalus SP - Puu Ualakaa SW	DLNR	Oahu	Potable	Yes	Yes
Waahila Ridge SRA	DLNR	Oahu	Potable	Yes	Yes
Kulani Correctional Center	DPS	Hawaii	Potable	Yes	Yes
Waiawa Correctional Facility	DPS	Oahu	Potable	Yes	Yes
Dillingham Airfield	DOT	Oahu	Potable	No, US Army	Yes *
Waialea Livestock Station	UH	Oahu	Irrigation	Yes	Yes

Note: * State water system operated by private contractor, managed by the State



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LEGEND:
 State Water Systems (State Dept.)
 Major Highways/Roads

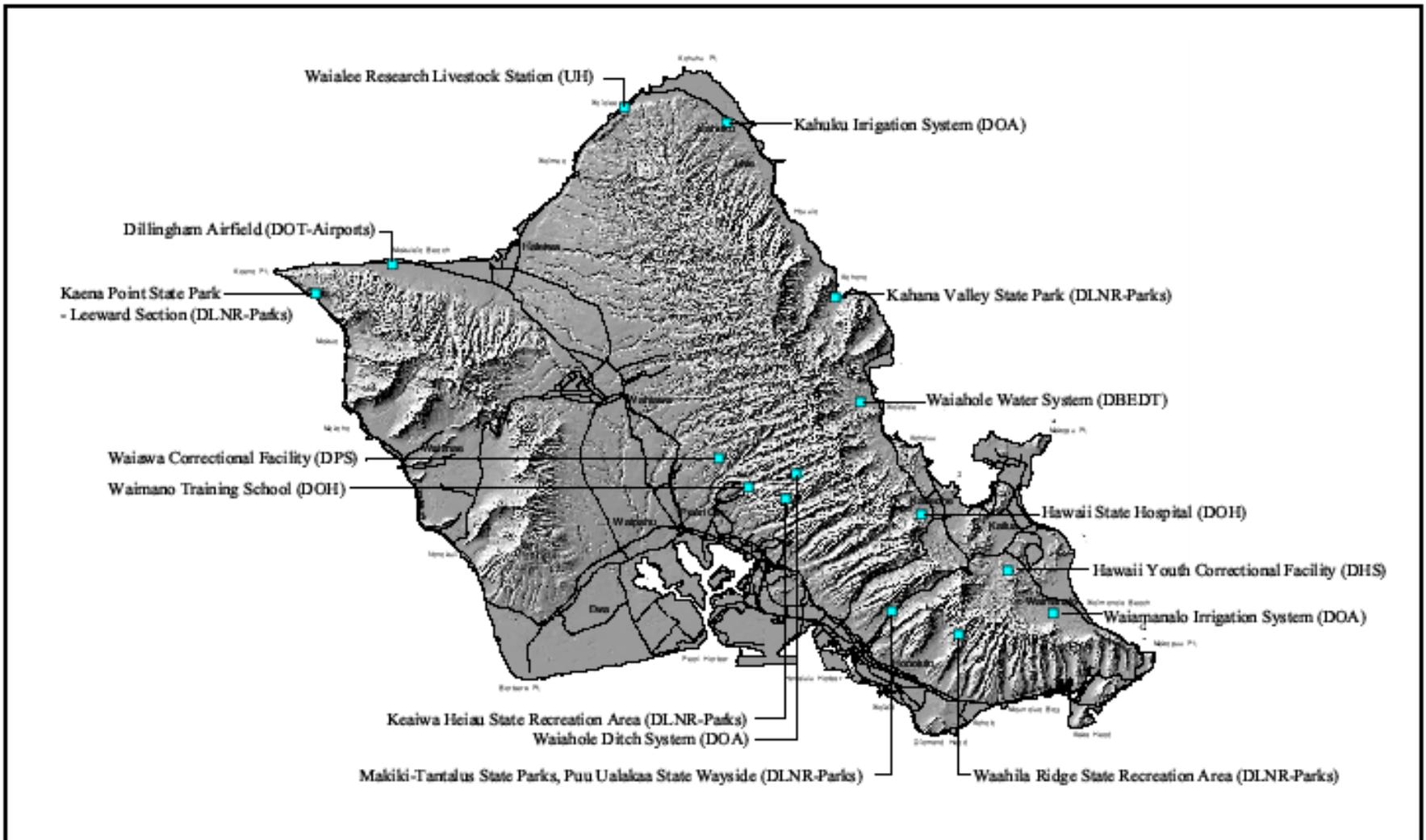
State Water Projects Plan
EXISTING STATE WATER SYSTEMS - HAWAII
FIGURE 2.11

Date: February 2003

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LEGEND:
■ State Water Systems (State Dept.)
 — Major Highways/Roads

State Water Projects Plan
EXISTING STATE WATER SYSTEMS - OAHU
FIGURE 2.15

Date: February 2003
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SWPP 20-Year Planning from 2000

- First 5 years, one year increments (2001, 2002, 2003, 2004, 2005)
- Next 15 years, five year increments (2010, 2015, 2020)

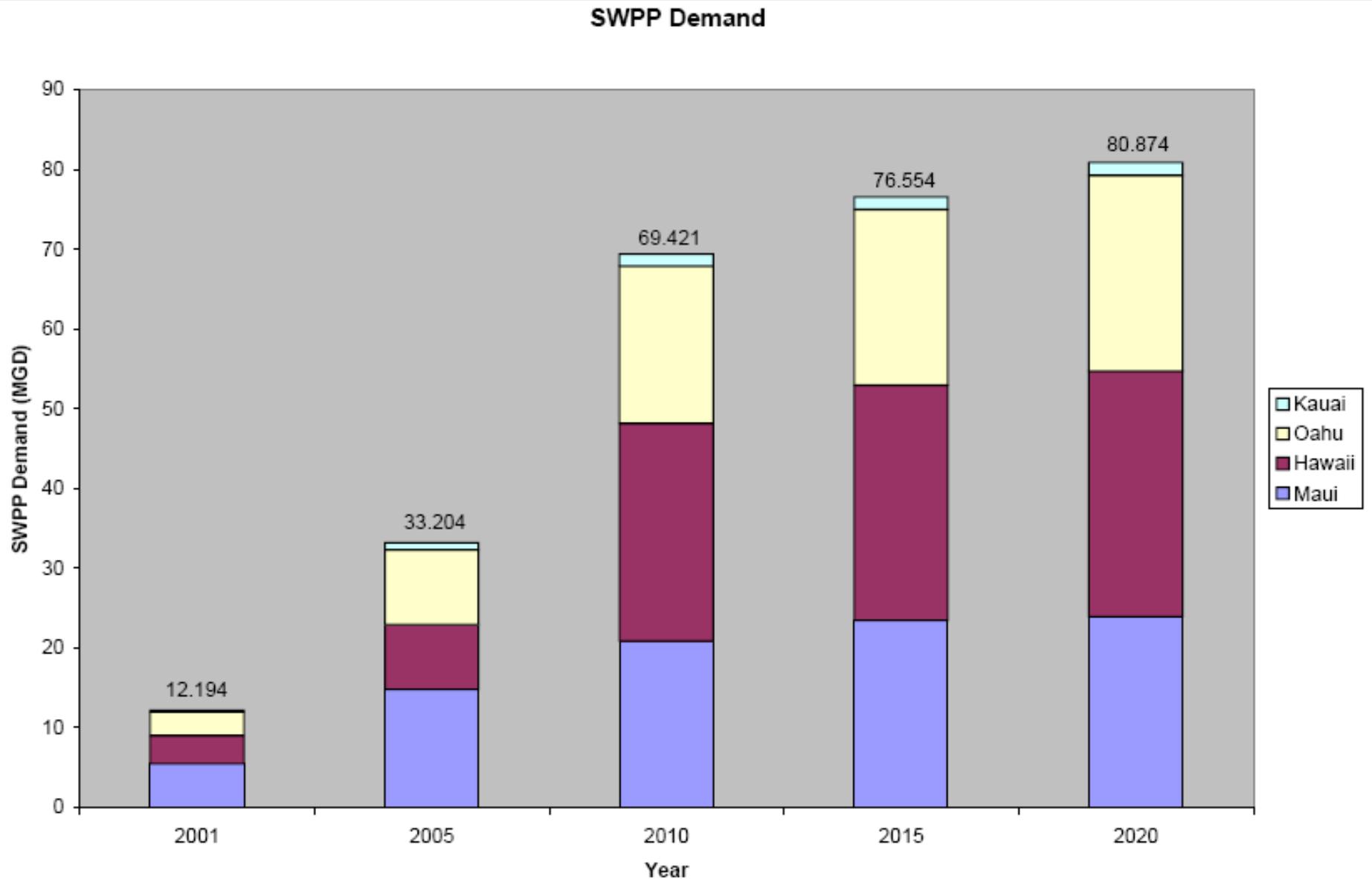
Total Projected Demands by State Department

	Total Additional Yearly Projected Cumulative Average Day Demand (mgd)							
Department	2001	2002	2003	2004	2005	2010	2015	2020
DAGS	0.124	0.606	0.691	0.775	0.775	0.957	0.957	0.997
DOA	7.505	7.755	8.765	8.765	14.765	35.315	35.315	35.470
DBEDT	1.023	2.259	3.676	4.154	4.625	8.075	10.789	13.833
DOD	0.791	0.792	0.793	0.793	0.793	0.793	0.793	0.793
DOE	0.620	0.810	2.227	2.243	2.243	2.598	2.598	2.598
DHHL	0.648	0.660	2.025	2.025	2.025	11.659	15.390	15.815
DOH	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
DHS	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Judiciary	0.000	0.000	0.008	0.008	0.008	0.008	0.008	0.008
DLNR	0.462	0.602	1.121	1.170	1.221	2.251	2.255	2.302
DPS	0.107	0.107	0.107	0.143	0.143	0.143	0.143	0.143
DOT	0.234	0.712	1.330	1.944	1.971	2.030	2.256	2.417
UH	0.669	3.789	4.466	4.554	4.623	5.579	6.038	6.486
State Totals	12.194	18.089	25.221	26.586	33.204	69.421	76.554	80.874

Total Projected Demands by Island

	Total Additional Yearly Projected Cumulative Average Day Demand (mgd)							
Island	2001	2002	2003	2004	2005	2010	2015	2020
Hawaii	3.553	6.477	7.484	7.852	8.128	27.304	29.509	30.855
Kauai	0.261	0.325	0.838	0.937	0.905	1.524	1.584	1.636
Lanai	0.002	0.018	0.018	0.033	0.033	0.534	0.535	0.536
Maui	4.107	4.827	6.379	6.675	12.680	16.716	19.254	19.716
Molokai	1.336	1.336	2.064	2.064	2.064	3.570	3.607	3.608
Oahu	2.936	5.114	8.437	9.026	9.393	19.772	22.064	24.522
State Totals	12.194	18.089	25.221	26.586	33.204	69.421	76.554	80.874

Projected Demands by Islands



**Summary of Water Development Strategy Results
Remaining Balance of Unmet SWPP Project Water Requirements**

State Water Demand Status	Remaining Balance of SWPP Water Demands (mgd)							
	2001	2002	2003	2004	2005	2010	2015	2020
Total SWPP Project Demand Statewide	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87
Demand Accounted for by Water Development Strategy	5.99	7.59	10.66	11.26	17.49	39.17	42.07	45.17
Remaining Balance of Unmet Demand								
Island of Hawaii	0.80	3.36	4.06	4.16	4.33	12.89	14.47	14.55
Island of Kauai	0.09	0.13	0.52	0.62	0.59	0.58	0.64	0.69
Island of Lanai	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Island of Maui	4.11	4.83	6.38	6.67	6.68	10.72	13.25	13.72
Island of Molokai	0.02	0.02	0.03	0.03	0.03	0.04	0.07	0.07
Island of Oahu	1.19	2.17	3.58	3.84	4.09	6.03	6.05	6.67
Statewide Remaining Balance Total	6.20	10.51	14.56	15.33	15.72	30.25	34.48	35.71

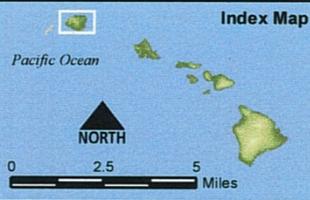
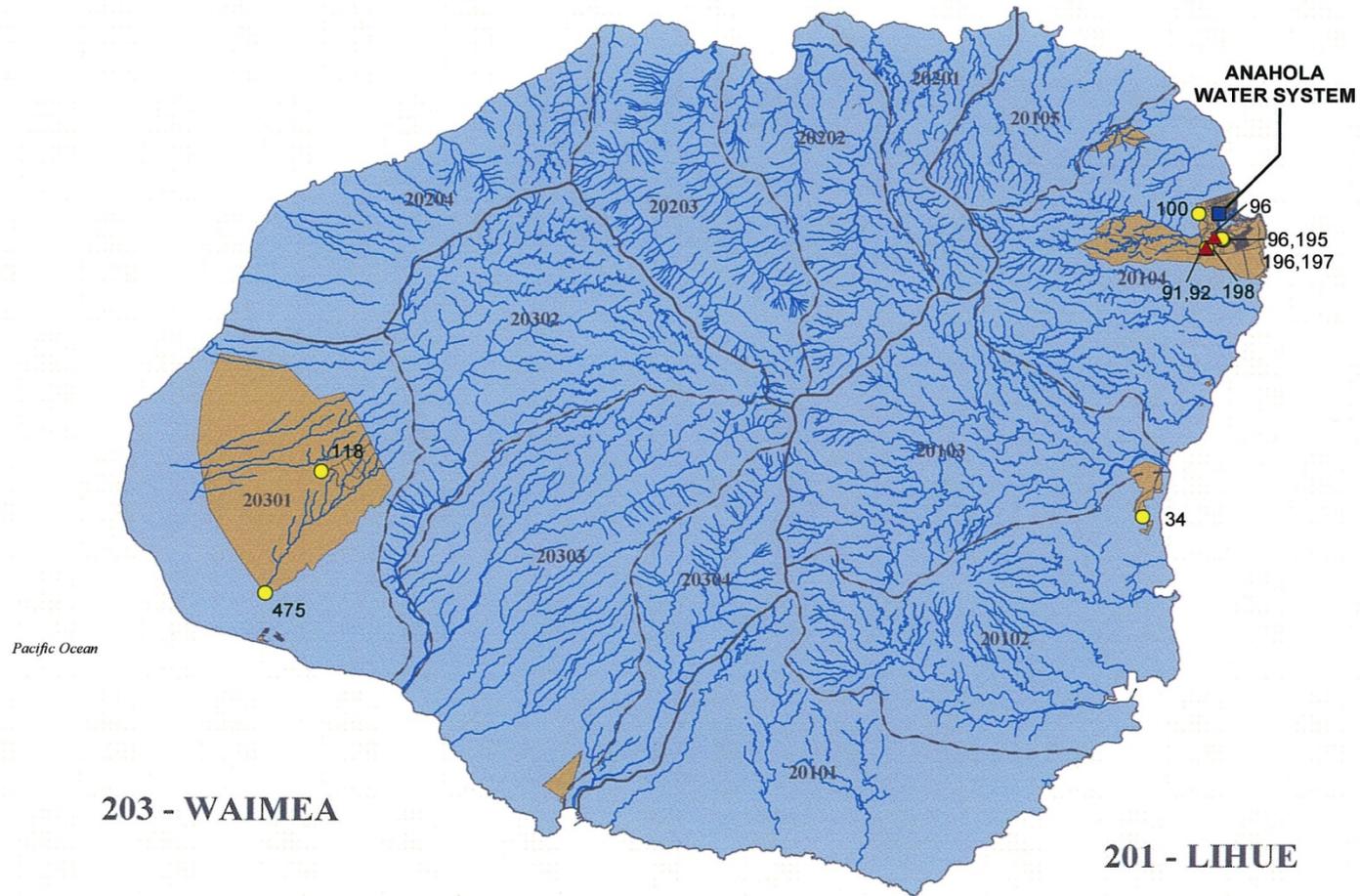
SWPP Results 20-year planning

- 584 future State projects
- 81 mgd (DOA 35 mgd, DHHL 16 mgd, DBEDT 14 mgd)
- Largest Users: Island of Hawaii 31 mgd and Island of Oahu 25 mgd
- Unmet Demand 36 mgd

SWPP Update of DHHL, Statewide

- Background
- Inventory of Existing Water Resources
- DHHL Projects

202 - HANAIEI

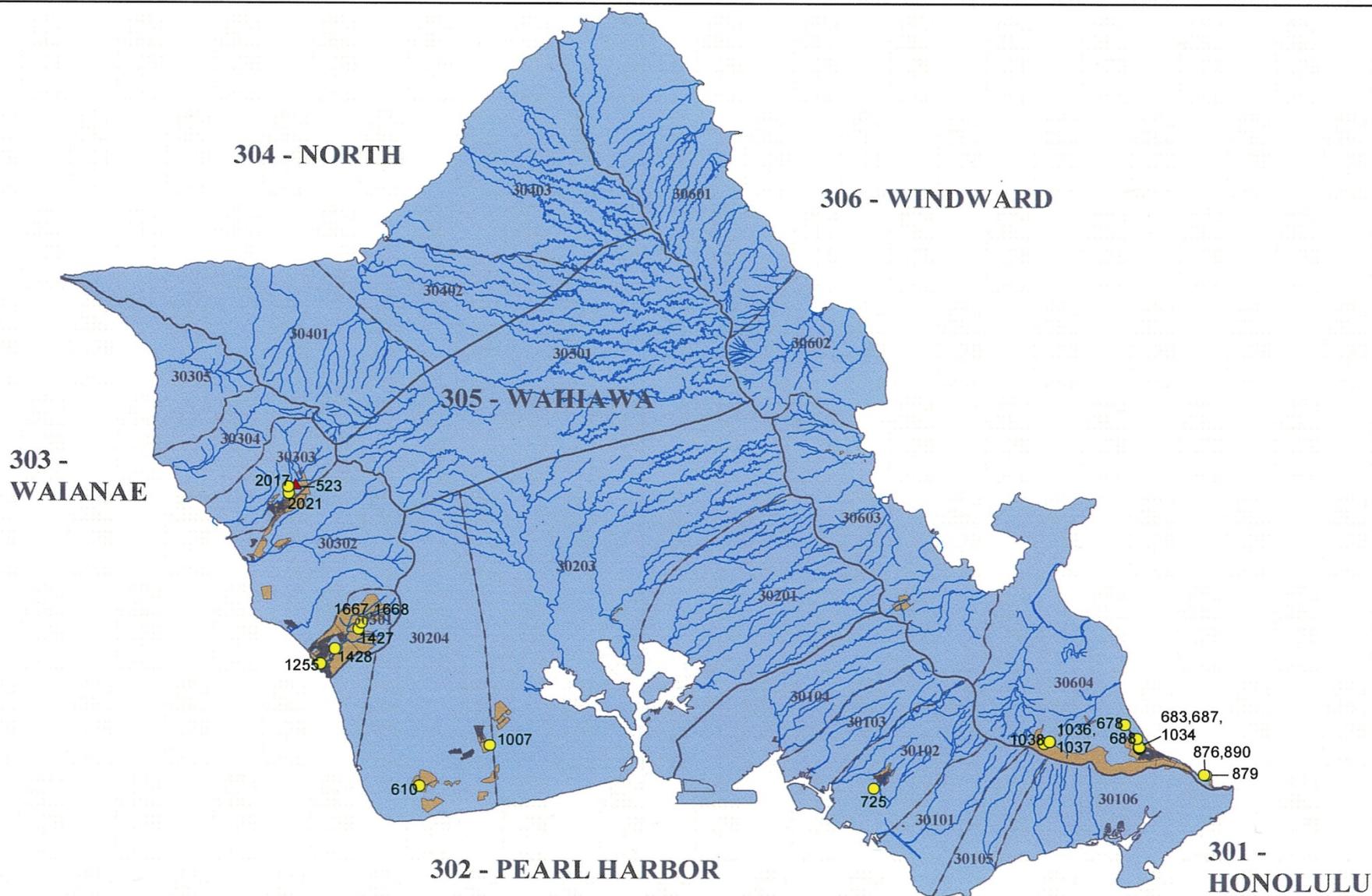


LEGEND:

■ DHHL Water System	— Aquifer Sector Areas
▲ Stream Diversions on DHHL Land	- - Aquifer System Areas
● Wells on DHHL Land	1234 CWRM FID No.
 Island Plan Tracts	201 Aquifer Sector Code
— Perennial Streams	20101 Aquifer System Code

State Water Projects Plan - DHHL Update
**Existing DHHL Water Systems, Registered Wells
 and Stream Diversions - Kauai**

FIGURE 2.1



LEGEND:

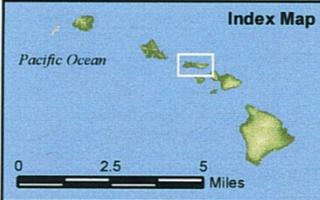
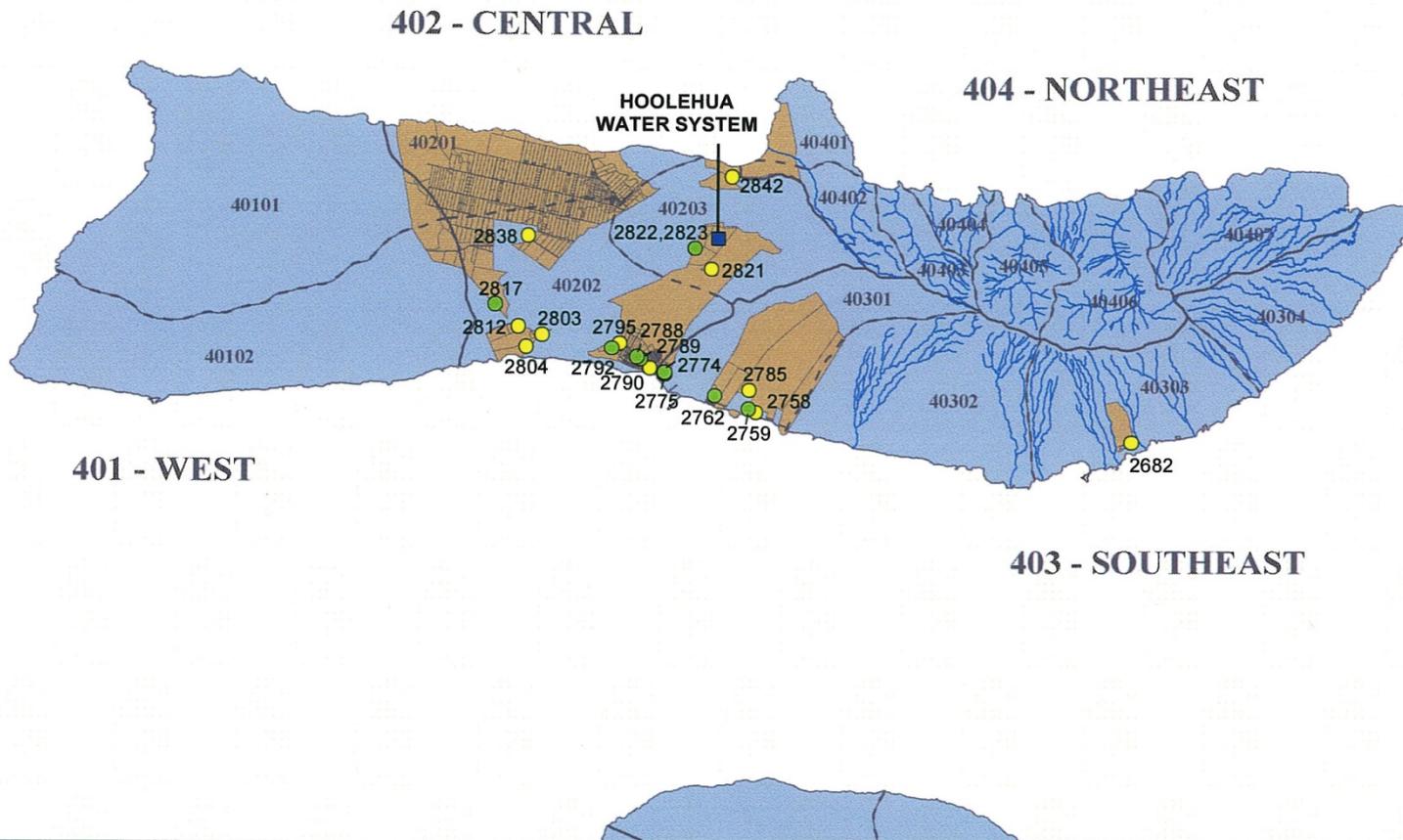
- ▲ Stream Diversions on DHHL Land
- Wells on DHHL Land
- Island Plan Tracts
- Perennial Streams
- Aquifer Sector Areas
- - Aquifer System Areas
- 1234 CWRM FID No.
- 301 Aquifer Sector Code
- 30101 Aquifer System Code

State Water Projects Plan - DHHL Update

Existing DHHL Water Systems, Registered Wells and Stream Diversions - Oahu

FIGURE 2.2

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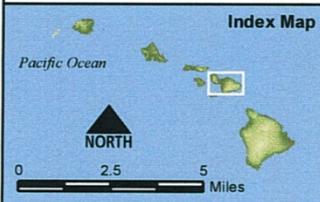
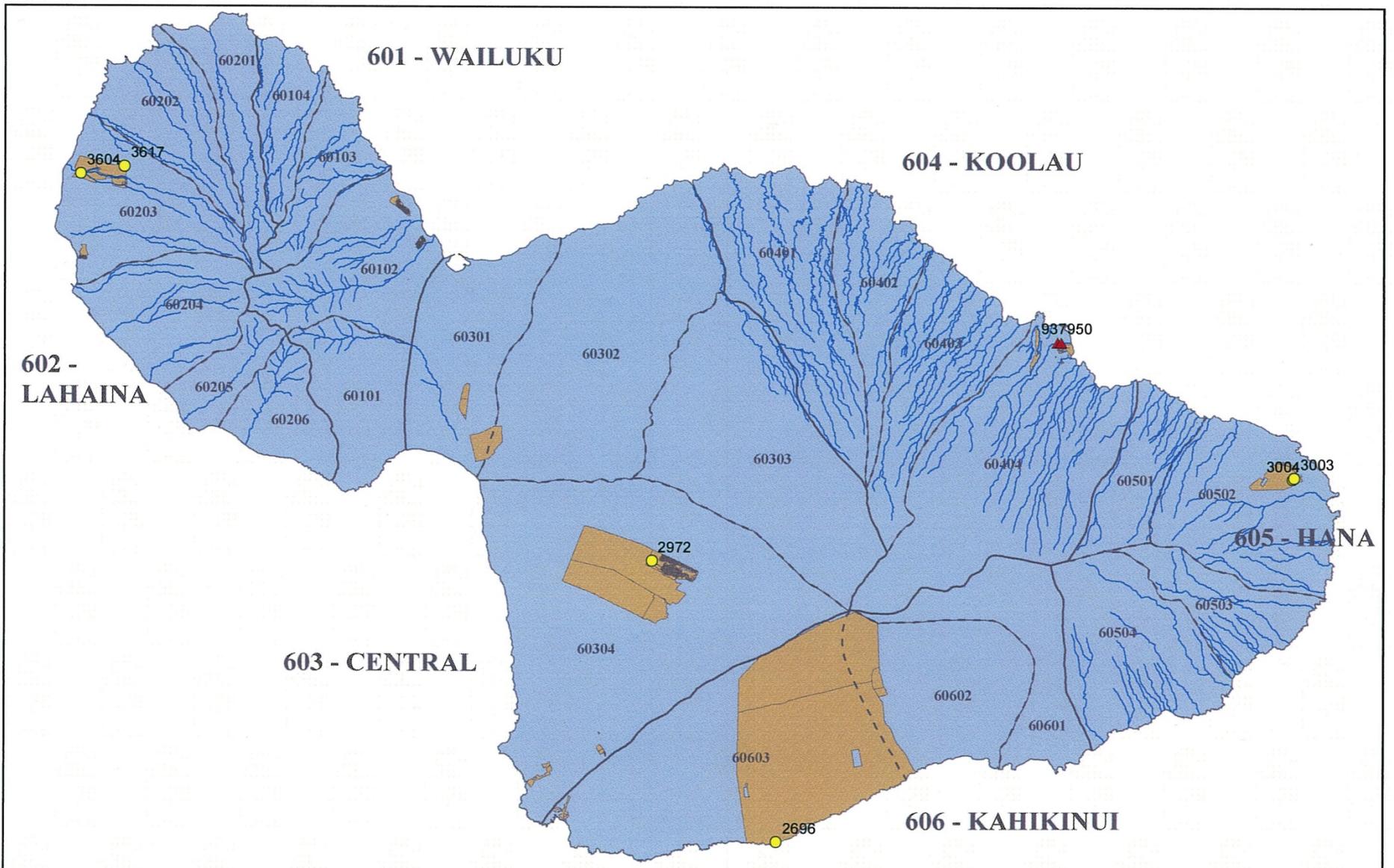


LEGEND:

■ DHHL Water System	— Aquifer Sector Areas
● Wells on DHHL Land	- - Aquifer System Areas
● DHHL Wells	1234 CWRM FID No.
 Island Plan Tracts	401 Aquifer Sector Code
— Perennial Streams	40101 Aquifer System Code

State Water Projects Plan - DHHL Update
**Existing DHHL Water Systems, Registered Wells
 and Stream Diversions - Molokai**

FIGURE 2.3



LEGEND:

- ▲ Stream Diversions on DHHL Land
- Wells on DHHL Land
- Island Plan Tracts
- Perennial Streams
- Aquifer Sector Areas
- - Aquifer System Areas
- 1234 CWRM FID No.
- 601 Aquifer Sector Code
- 60101 Aquifer System Code

State Water Projects Plan - DHHL Update

**Existing DHHL Water Systems, Registered Wells
and Stream Diversions - Maui**

FIGURE 2.4

Fukunaga & Associates, Inc., *Consulting Engineers*

801 - KOHALA

KAWAIHAE WATER SYSTEM

803 - W. MAUNA KEA

802 - N.E. MAUNA KEA

807 - N.W. MAUNA LOA

PUUKAPU HYBRID WATER SYSTEM

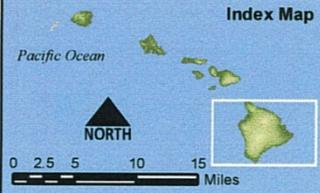
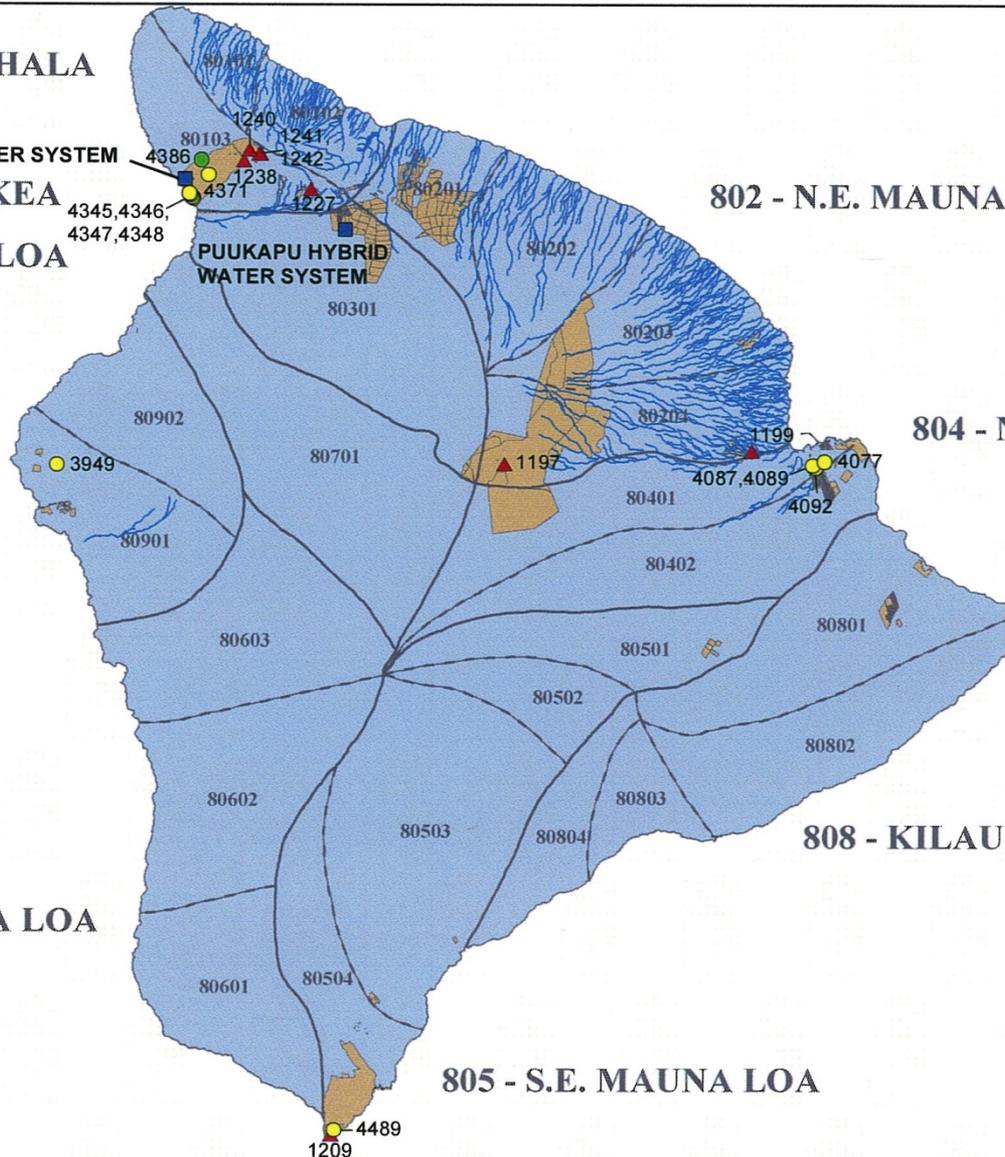
804 - N.E. MAUNA LOA

809 - HUALALAI

808 - KILAUEA

806 - S.W. MAUNA LOA

805 - S.E. MAUNA LOA



LEGEND:

- DHHL Water System
- ▲ Stream Diversions on DHHL Land
- Wells on DHHL Land
- DHHL Wells
- Island Plan Tracts
- Perennial Streams
- Aquifer Sector Areas
- Aquifer System Areas
- 1234 CWRM FID No.
- 801 Aquifer Sector Code
- 80101 Aquifer System Code

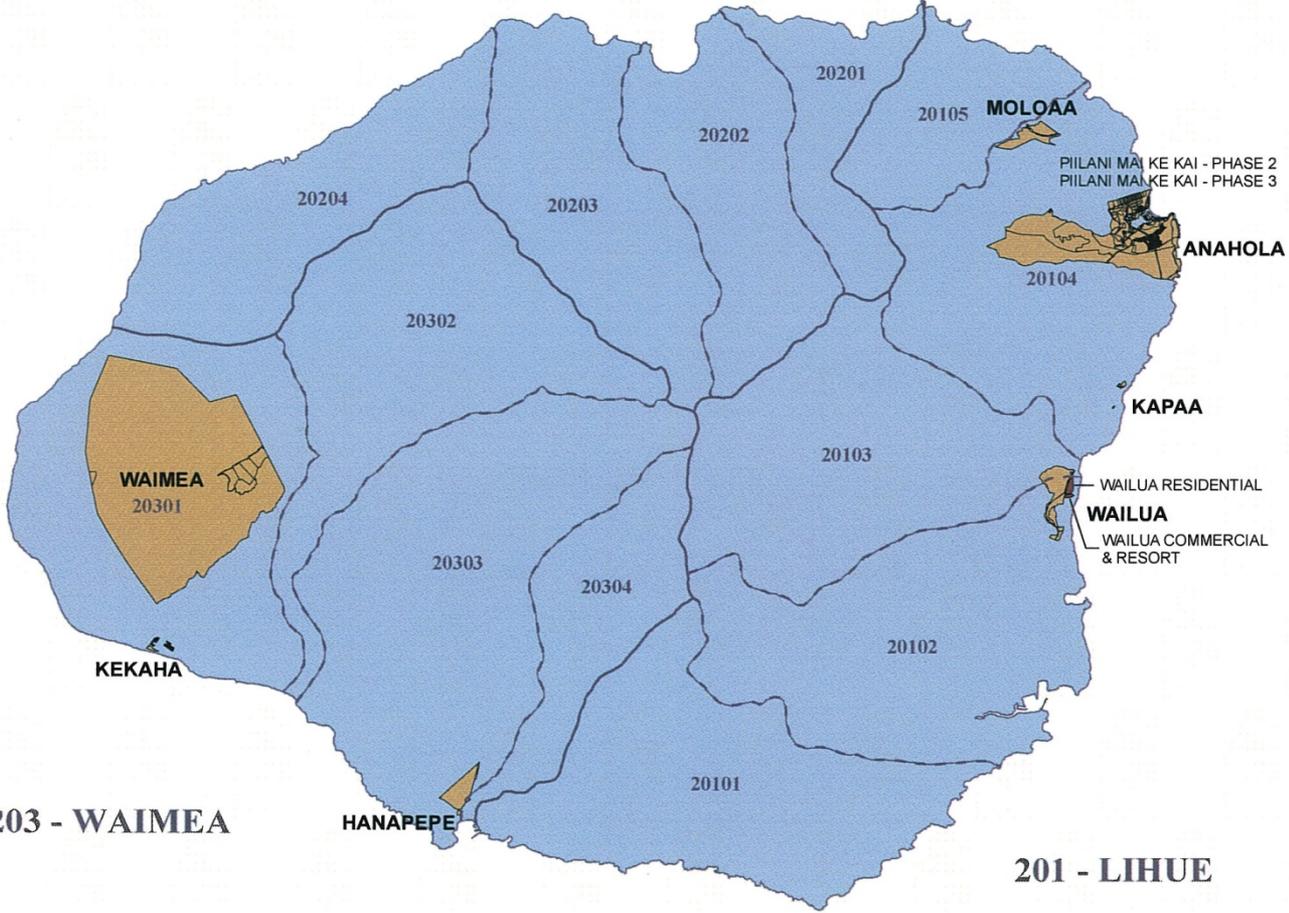
State Water Projects Plan - DHHL Update

Existing DHHL Water Systems, Registered Wells and Stream Diversions - Hawaii

FIGURE 2.5

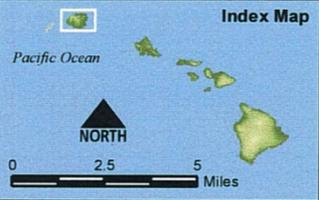
Fukunaga & Associates, Inc., Consulting Engineers

202 - HANAPEPE



203 - WAIMEA

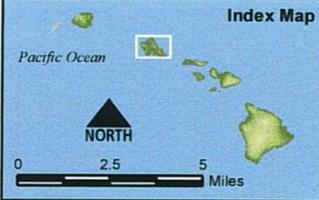
201 - LIHUE



LEGEND:

- LDD/LMD Projects
- Island Plan Tracts
- Aquifer Sector Areas
- Aquifer System Areas
- 201 Aquifer Sector Code
- 20101 Aquifer System Code

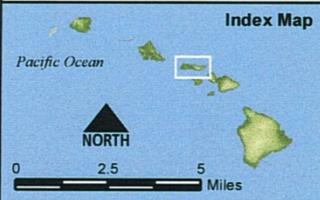
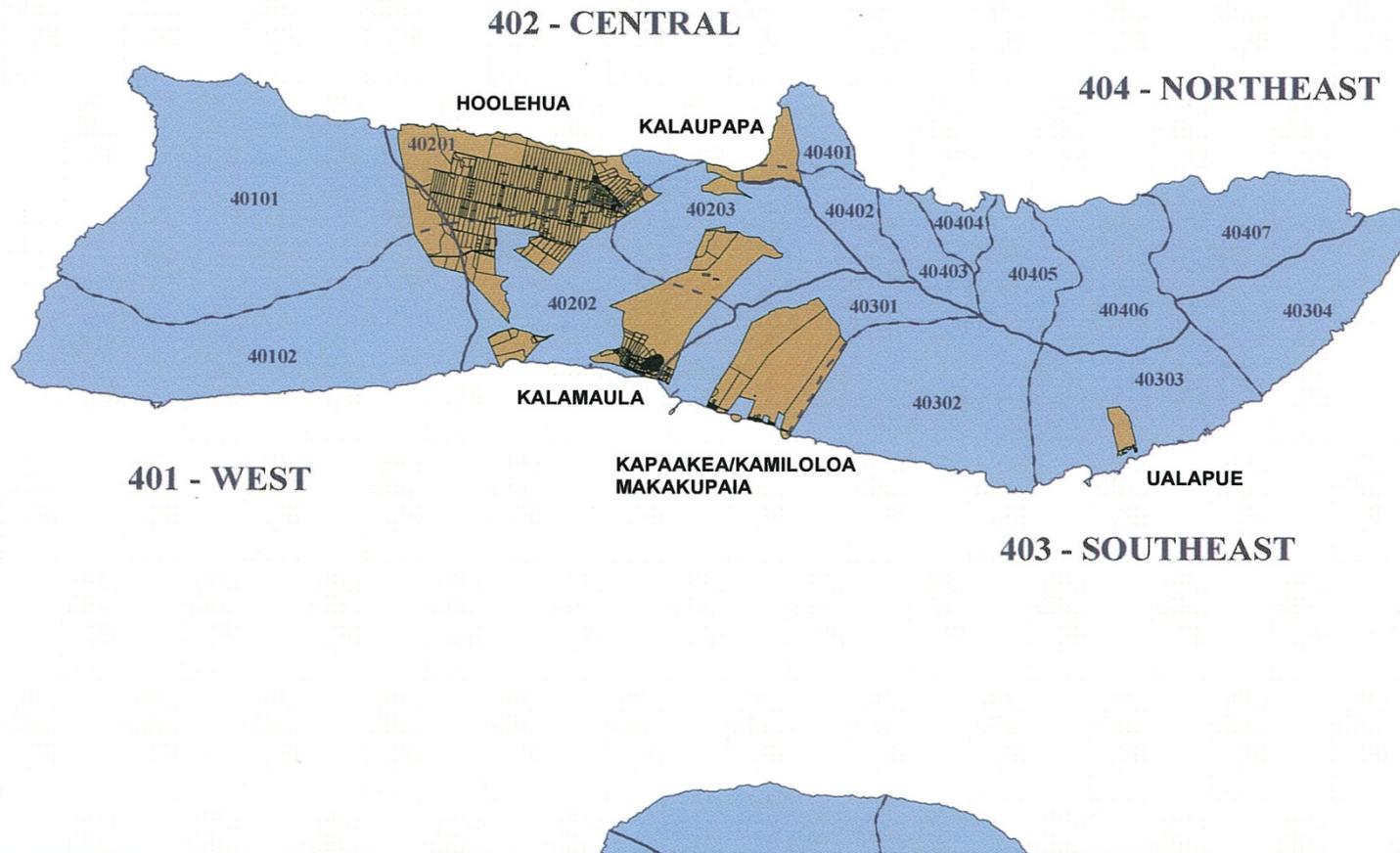
State Water Projects Plan - DHHL Update
DHHL Projects - Kauai
FIGURE 3.2



LEGEND:

- LDD/LMD Projects
- Island Plan Tracts
- Aquifer Sector Areas
- Aquifer System Areas
- 301 Aquifer Sector Code
- 30101 Aquifer System Code

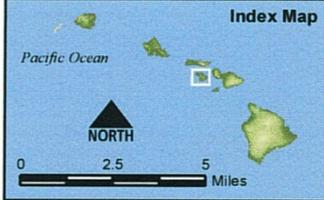
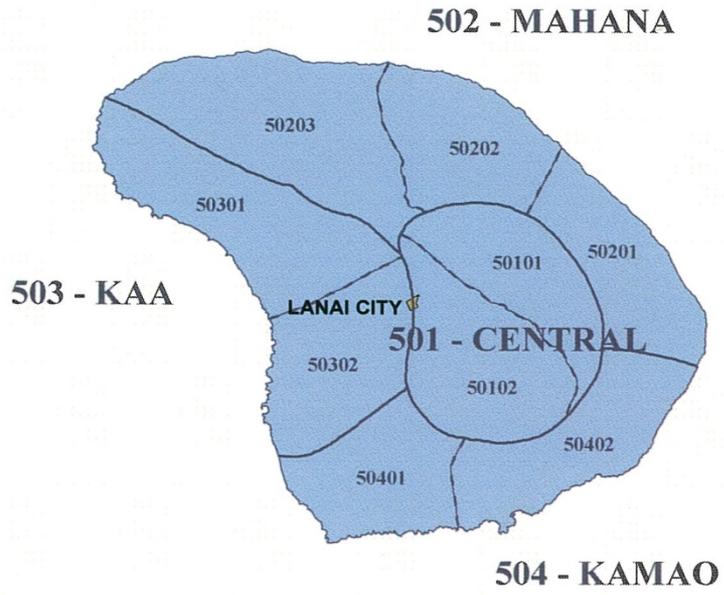
State Water Projects Plan - DHHL Update
DHHL Projects - Oahu
FIGURE 3.3



LEGEND:

- Island Plan Tracts
- Aquifer Sector Areas
- Aquifer System Areas
- 401 Aquifer Sector Code
- 40101 Aquifer System Code

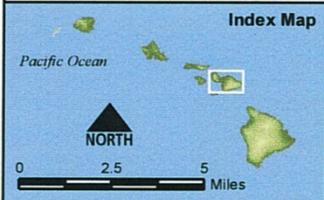
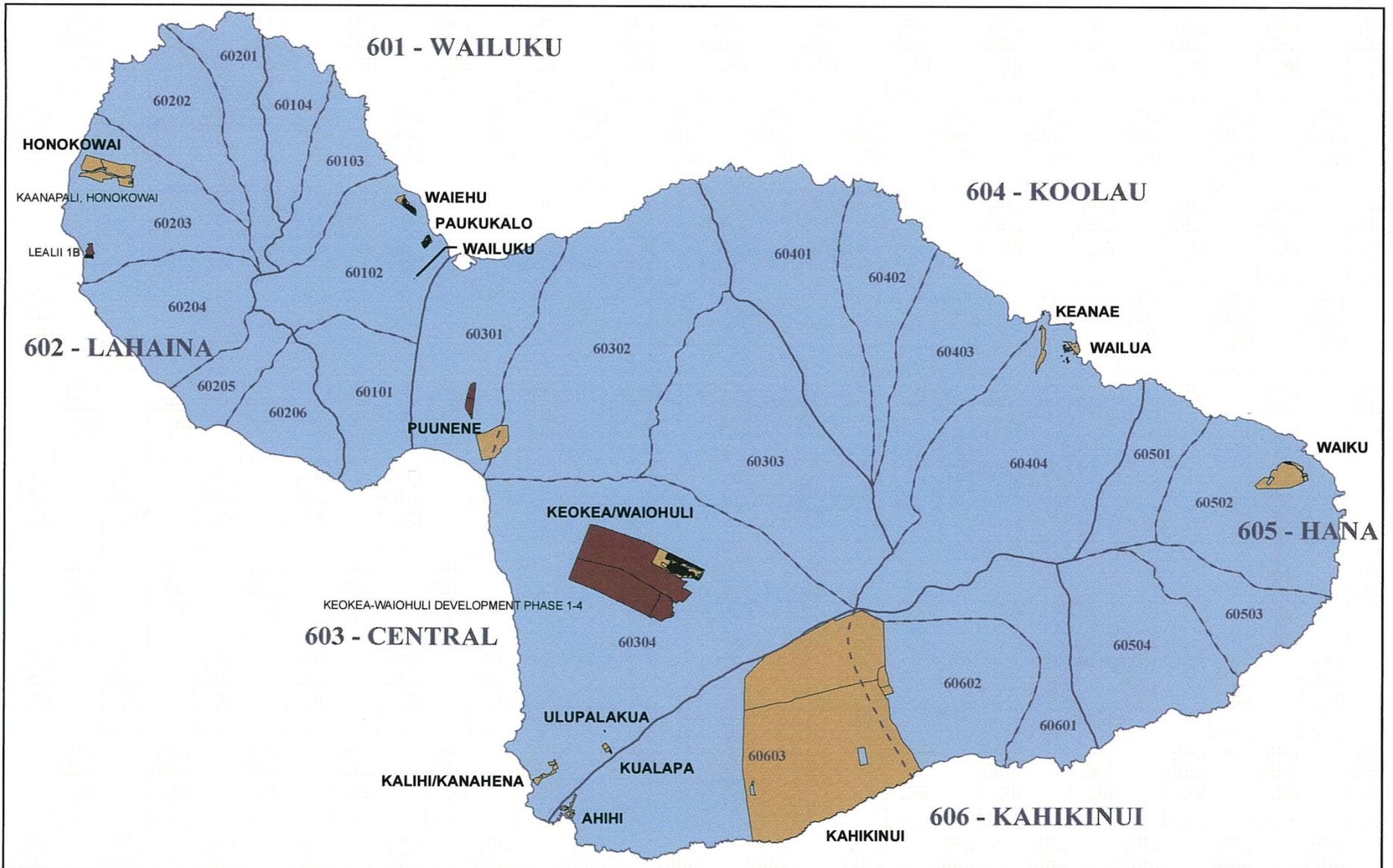
State Water Projects Plan - DHHL Update
DHHL Projects - Molokai
FIGURE 3.4



LEGEND:

- Island Plan Tracts
- Aquifer Sector Areas
- Aquifer System Areas
- 501 Aquifer Sector Code
- 50101 Aquifer System Code

State Water Projects Plan - DHHL Update
DHHL Projects - Lanai
FIGURE 3.5



LEGEND:

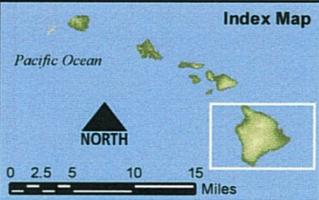
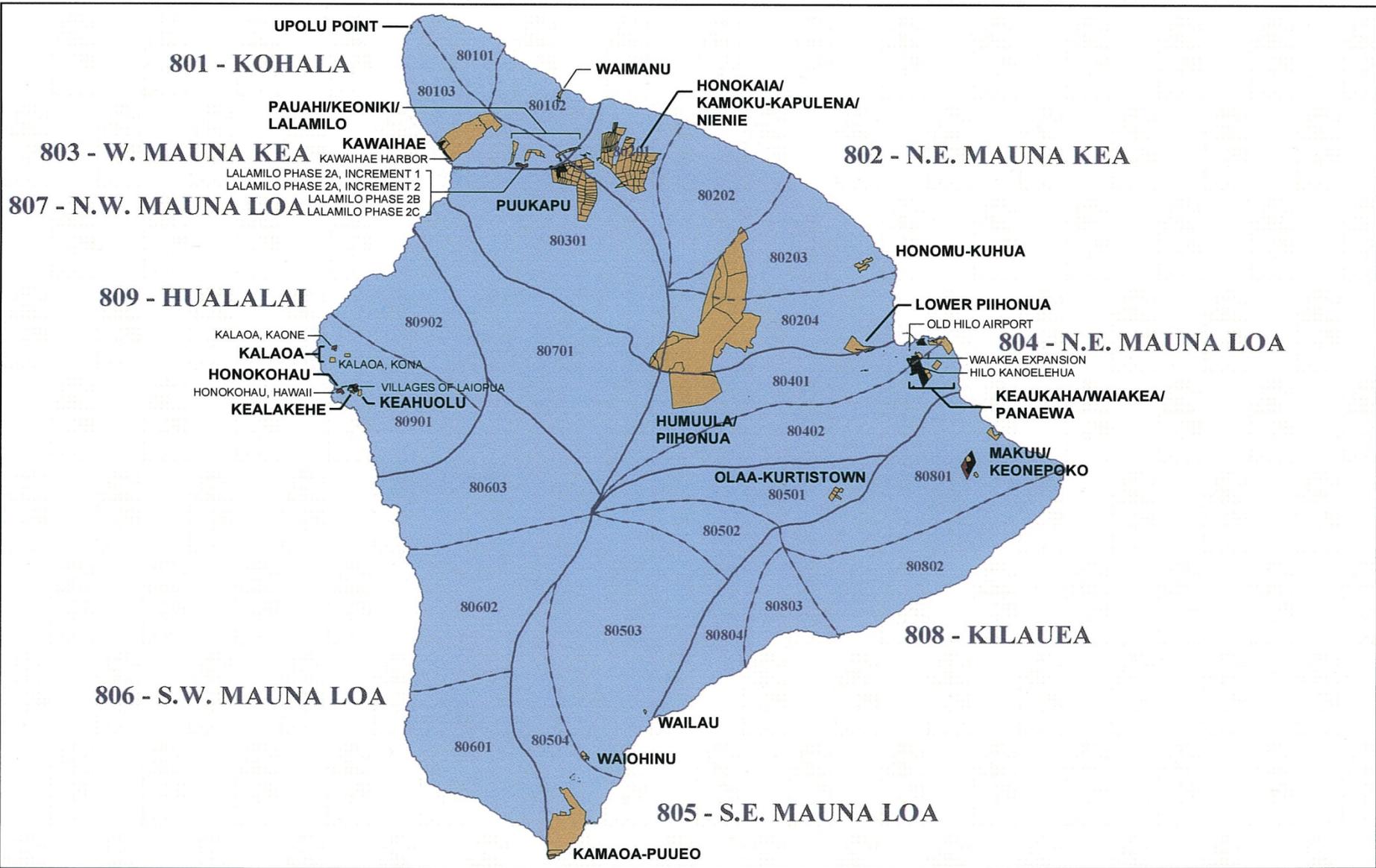
	LDD/LMD Projects	601	Aquifer Sector Code
	Island Plan Tracts	60101	Aquifer System Code
	Aquifer Sector Areas		
	Aquifer System Areas		

State Water Projects Plan - DHHL Update

DHHL Projects - Maui

FIGURE 3.6

Fukunaga & Associates, Inc., Consulting Engineers



LEGEND:

	LDD/LMD Projects	801	Aquifer Sector Code
	Island Plan Tracts	80101	Aquifer System Code
	Aquifer Sector Areas		
	Aquifer System Areas		

State Water Projects Plan - DHHL Update
DHHL Projects - Hawaii
FIGURE 3.7

Fukunaga & Associates, Inc., Consulting Engineers

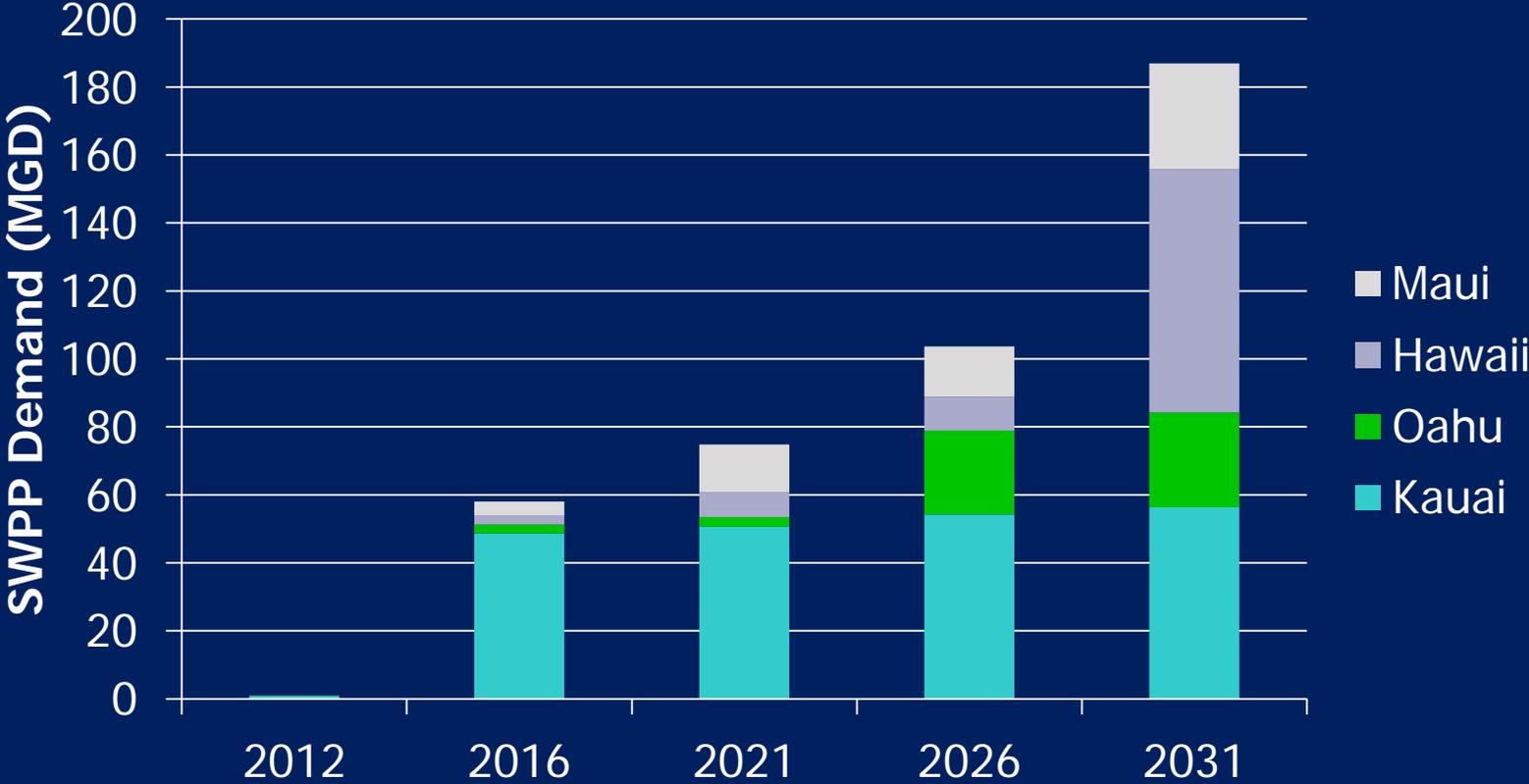
SWPP 20-Year Planning from 2012

- First 5 years, one year increments
(2012, 2013, 2014, 2015, 2016)
- Next 15 years, five year increments
(2021, 2026, 2031)

Table 3.6: DHHL Potable and Non-Potable Demand Projections by Island

Island	Primary Use	Cumulative Average Day Demand (mgd)							
		2012	2013	2014	2015	2016	2021	2026	2031
Kauai	Potable	0.000	0.000	0.000	0.026	0.722	1.288	2.577	3.287
	Non-Potable for Water Development	0.819	0.819	0.819	0.819	47.164	48.497	50.747	51.964
	Non-Potable	0.819	0.819	0.819	0.819	48.030	49.362	51.612	53.006
	Total for Water Development	0.819	0.819	0.819	0.845	47.886	49.785	53.324	55.251
	Total	0.819	0.819	0.819	0.845	48.752	50.650	54.189	56.293
Oahu	Potable	0.009	0.009	0.031	0.609	0.739	0.965	5.290	5.426
	Non-Potable for Water Development	0.000	0.000	0.000	0.000	1.800	1.814	19.503	19.503
	Non-Potable	0.000	0.000	0.000	0.000	1.800	1.814	19.503	22.539
	Total for Water Development	0.009	0.009	0.031	0.609	2.539	2.779	24.793	24.929
	Total	0.009	0.009	0.031	0.609	2.539	2.779	24.793	27.965
Molokai	Potable	0.000	0.000	0.000	0.000	0.259	0.662	1.061	1.061
	Non-Potable for Water Development	0.000	0.000	0.000	0.000	4.721	5.360	6.091	6.091
	Non-Potable	0.000	0.000	0.000	0.000	4.721	5.360	6.091	34.985
	Total for Water Development	0.000	0.000	0.000	0.000	4.980	6.022	7.153	7.153
	Total	0.000	0.000	0.000	0.000	4.980	6.022	7.153	36.046
Lanai	Potable	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.067
	Non-Potable for Water Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Non-Potable	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Total for Water Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.067
	Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.067
Maui	Potable	0.000	0.000	0.000	0.000	2.213	2.715	3.457	3.521
	Non-Potable for Water Development	0.000	0.000	0.000	0.000	1.870	11.397	11.397	11.652
	Non-Potable	0.000	0.000	0.000	0.000	1.870	11.397	11.397	27.557
	Total for Water Development	0.000	0.000	0.000	0.000	4.083	14.112	14.853	15.173
	Total	0.000	0.000	0.000	0.000	4.083	14.112	14.853	31.078
Hawaii	Potable	0.076	0.113	0.149	0.269	1.766	3.184	4.227	9.002
	Non-Potable for Water Development	0.000	0.000	0.000	0.102	0.932	4.114	5.266	31.721
	Non-Potable	0.000	0.000	0.000	0.102	0.932	4.114	5.606	62.582
	Total for Water Development	0.076	0.113	0.149	0.371	2.698	7.298	9.493	40.722
	Total	0.076	0.113	0.149	0.371	2.698	7.298	9.833	71.584
State	Potable	0.085	0.121	0.180	0.904	5.700	8.814	16.612	22.365
	Non-Potable for Water Development	0.819	0.819	0.819	0.921	56.487	71.180	93.004	120.930
	Non-Potable	0.819	0.819	0.819	0.921	57.352	72.046	94.209	200.669
	Total for Water Development	0.904	0.941	0.999	1.825	62.187	79.995	109.616	143.295
	Total	0.904	0.941	0.999	1.825	63.052	80.860	110.821	223.034

Projected Demands by Island



SWPP DHHL Water Development Strategy

Table 4.6: Summary of Non-Potable Water Development Strategy

Non-Potable Water Development Strategy	Cumulative Average Day Demand (mgd) – Medium Projection							
	Short-Term						Long-Term	
	2012	2013	2014	2015	2016	2021	2026	2031
EXSWS	0.0000	0.0000	0.0000	0.1020	17.827	21.496	22.295	22.971
MASTERPLAN	0.0000	0.0000	0.0000	0.0000	1.8564	1.8564	1.8564	1.8564
NEWSWS	0.8194	0.8194	0.8194	0.8194	1.8190	3.3350	3.3350	3.3350
OTHER	0.0000	0.0000	0.0000	0.0000	31.800	38.175	57.975	73.947
Demand Accounted for by Water Development Strategy	0.8194	0.8194	0.8194	0.9214	53.302	64.862	85.462	102.11
NONE	0.0000	0.0000	0.0000	0.0000	2.7659	5.8089	6.9615	17.994
Total SWPP DHHL Demand	0.8194	0.8194	0.8194	0.9214	56.068	70.671	92.423	120.10

Table 4.7: Remaining Balance of Unmet Demands by Groundwater Hydrologic Unit

Groundwater Hydrologic Unit (Aquifer Sector)		Cumulative Average Day Demand (mgd) – Medium Projection							
		Short-Term						Long-Term	
		2012	2013	2014	2015	2016	2021	2026	2031
Kauai	Lihue	0.0000	0.0000	0.0000	0.0000	0.0640	0.0640	0.7858	1.2192
	Waimea	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0480	0.0725
Oahu	Honolulu	0.0000	0.0000	0.0000	0.0147	0.0667	0.0667	0.1102	0.1102
	Pearl Harbor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0160	0.0160
	Waianae	0.0000	0.0000	0.0000	0.0000	0.0544	0.1220	1.7749	1.7749
	Windward	0.0000	0.0000	0.0220	0.0220	0.0220	0.0220	0.2000	0.3360
Molokai	Southeast	0.0000	0.0000	0.0000	0.0000	0.0000	0.0282	0.2209	0.2209
	Central	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0034
Maui	Hana	0.0000	0.0000	0.0000	0.0000	0.0000	0.0085	0.0085	0.0565
	Koolau	0.0000	0.0000	0.0000	0.0000	0.0000	0.0034	0.0034	0.0034
	Wailuku	0.0000	0.0000	0.0000	0.0000	0.0204	0.0204	0.0204	0.0204
	E. Mauna Kea	0.0000	0.0000	0.0000	0.0000	0.0000	0.0400	0.0832	0.3844
Hawaii	Hualalai	0.0200	0.0400	0.0600	0.0800	1.2170	1.9170	2.1302	2.4130
	Kohala	0.0000	0.0000	0.0000	0.0847	0.0847	0.0939	0.6959	0.7539
	N.E. Mauna Loa	0.0000	0.0000	0.0000	0.0000	0.0760	0.4280	0.4280	1.8280
	S.E. Mauna Loa	0.0000	0.0000	0.0000	0.0000	0.4404	0.5841	0.5841	0.6051
Total Statewide		0.0200	0.0400	0.0820	0.2013	2.0456	3.3982	7.1095	9.8178

SWPP Results 20-year planning

- Largest Users: Island of Hawaii 72 mgd and Island of Kauai 56 mgd
- Unmet Demand 10 mgd

SWPP Updates

- SWPP Update of all State Departments, Statewide
- SWPP Update of all State Departments in North Kona

How Can Updated SWPP Report Be Utilized?

- When State agencies request funding for their projects, the Updated SWPP Report can justify funding request for their projects with water demands.
- Availability of Water required for these projects can be determined, because report lists projected water demands by State department, island, and aquifer.
- Forecasted water demands can be used by County water agencies when planning upgrades to their existing water systems.
- Support water development projects to meet State projects water requirements.

Availability of SWPP Report On-line

- Downloadable version of 2003 Report available on CWRM's website
- When SWPP (DHHL, Statewide, and North Kona) is updated this version will be posted on CWRM's website
- Contact Information:
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Phone No.: 587-0257, Email:
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