

West Hawai'i Water Projects Update

Hawaiian Homes Commission (HHC) Meeting (Virtual)

Andrew Choy, Acting Planning Program Manager

Jonathan Likeke Scheuer, Consultant

May 17-18, 2021

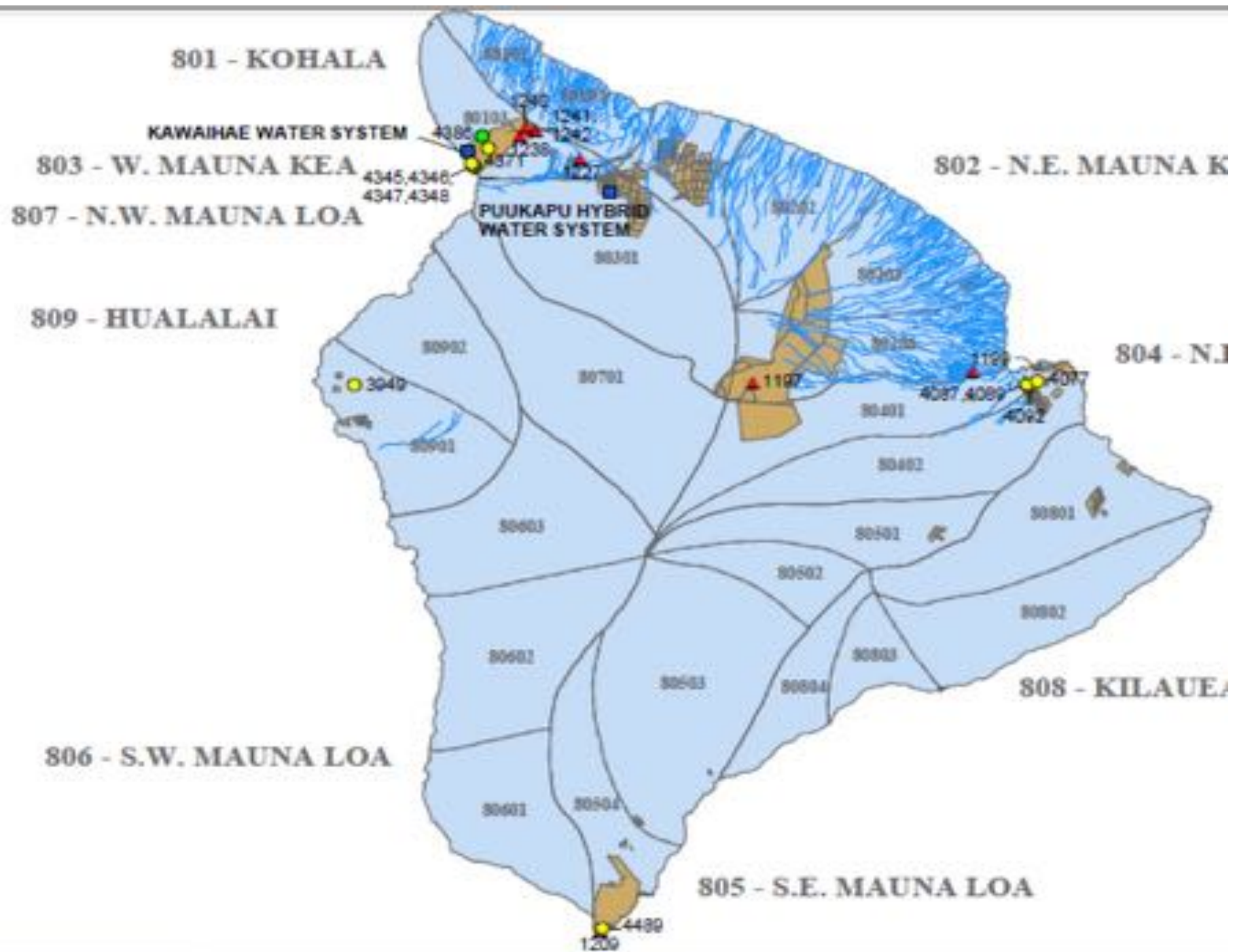
Honokāia, Hawai'i

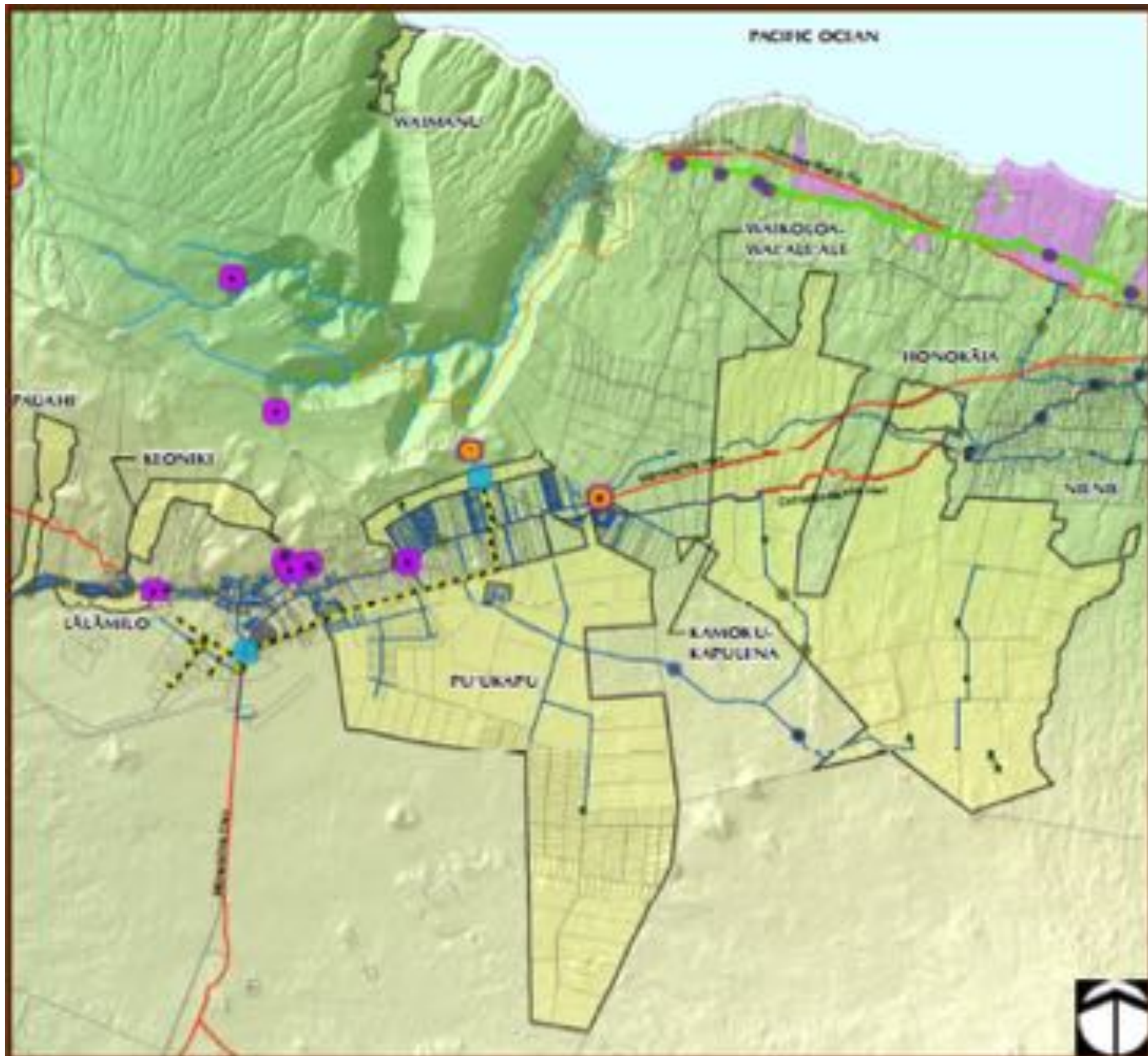
West Hawai'i Water Projects Update

- I. Planning Regions Covered**
- II. Future Water Demands**
- III. Existing Water Reservations**
- IV. Updates: Actions to turn reservations to
“wet water”**

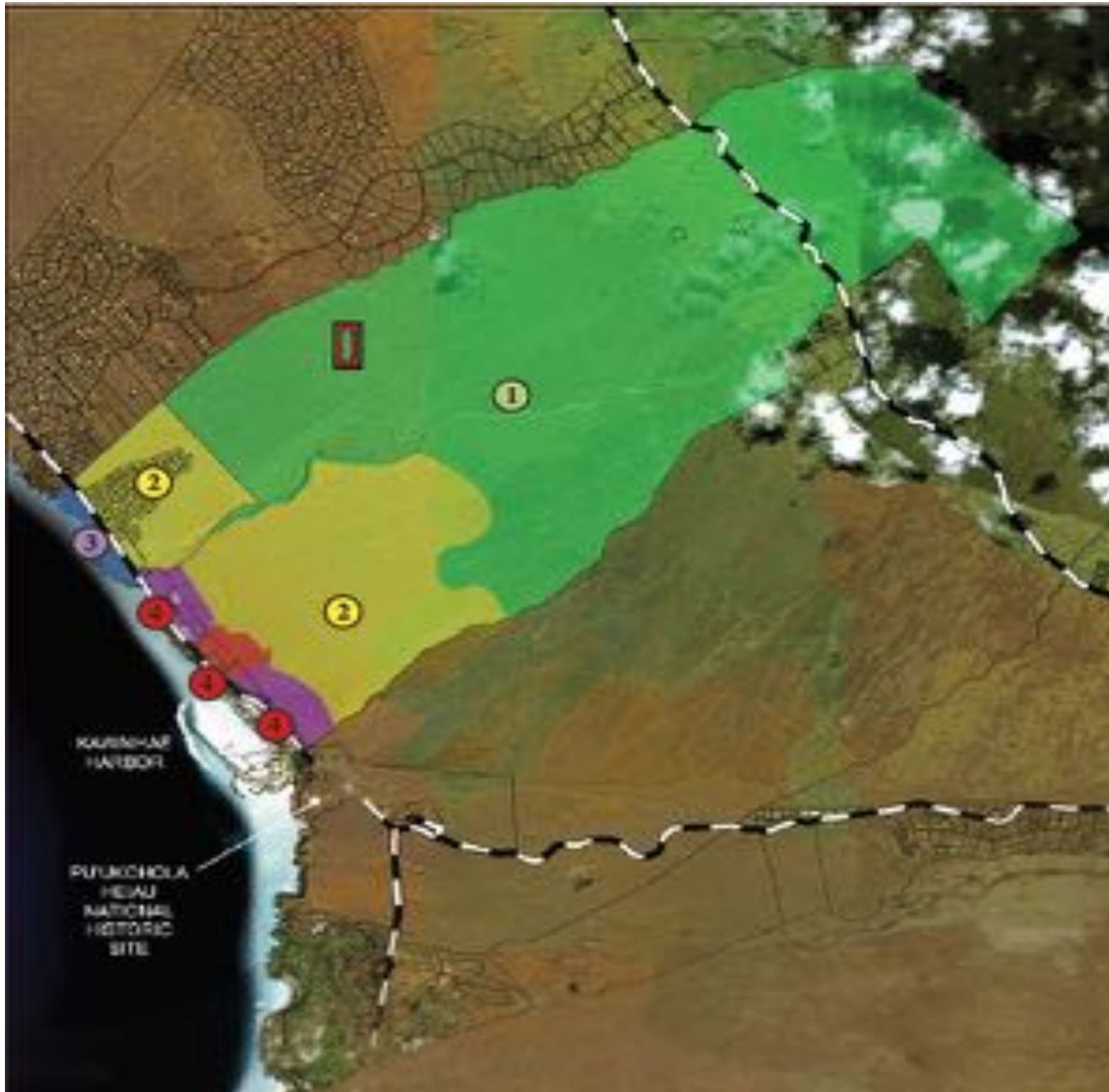
I. Planning Regions Covered

- **Waimea Nui**
- **Kawaihae**
- **Kealakehe-La'i 'Ōpua**

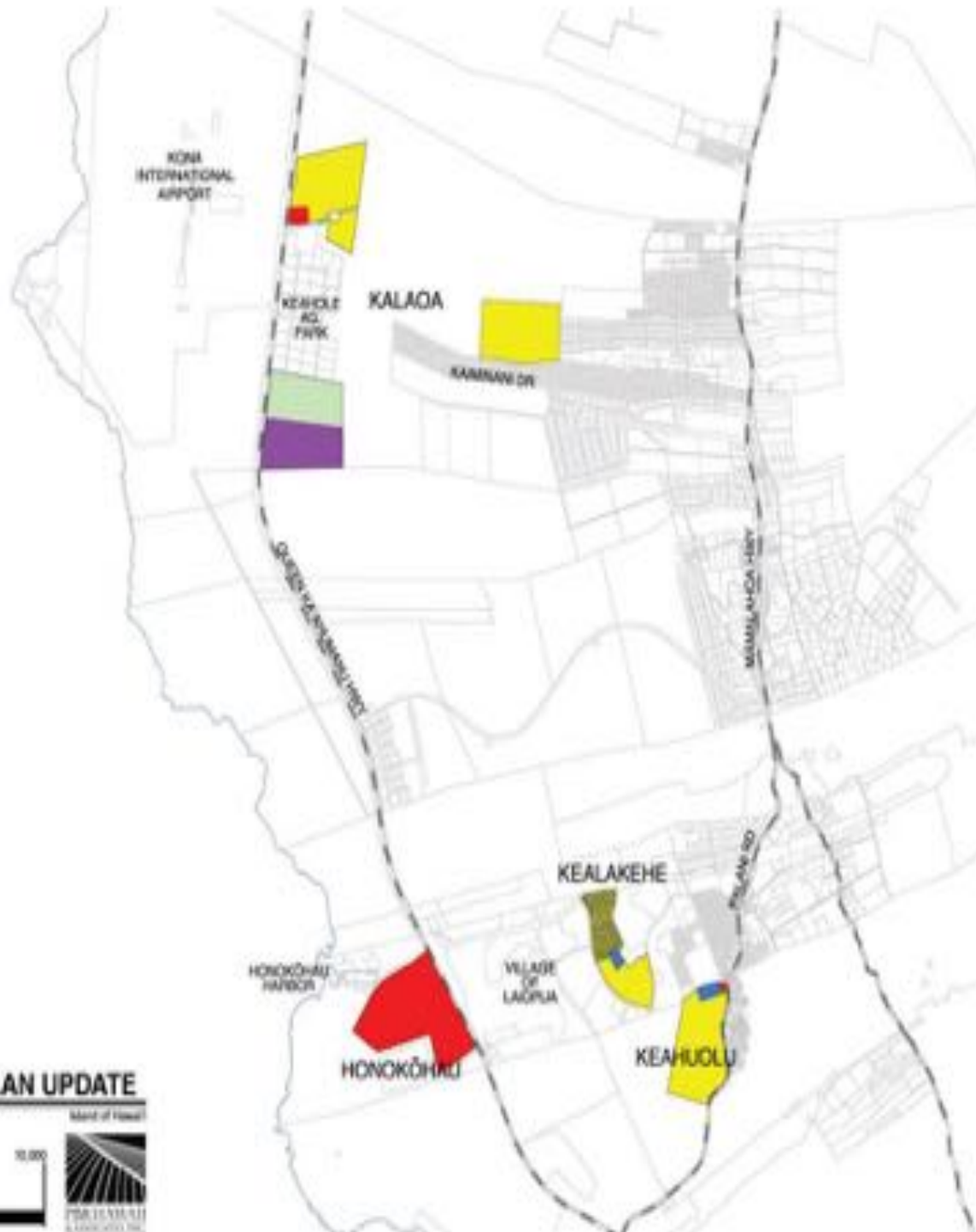
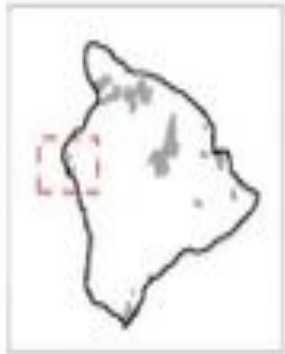




Waimea
Nui



**Kawaihae
Planning
Region**

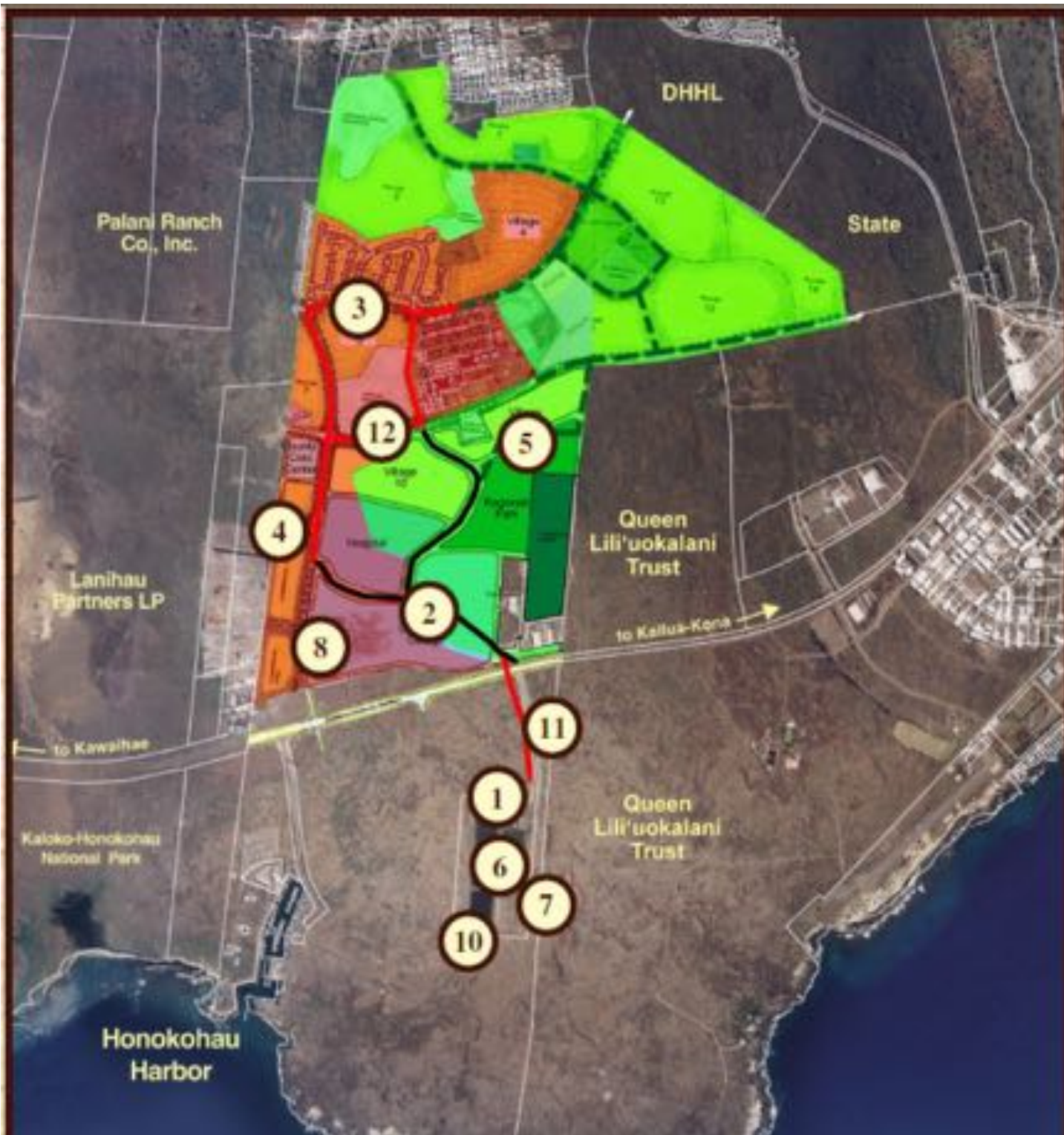


- Legend**
- Land Use Categories**
- Commercial
 - Community Use
 - Conservation
 - General Agriculture
 - Industrial
 - Pastoral
 - Residential
 - Special District
 - Subsistence Agriculture
 - Supplemental Agriculture

Figure 3
Existing Land Inventory
WEST HAWAII ISLAND PLAN UPDATE



Kealakehe Planning Region



Kealahou

II. Future water demands

- **We calculate water demands based on:**
 - **HHC land use designations**
 - **County and other water demand rates**
- **Calculated in the State Water Projects Plan**
 - **SWPP Approved May 16, 2017**
 - **SWPP update to be considered May 18, 2021**
- **Partial bases for future reservations**

Overall Hawai'i island Water Demands (mgd)(2017 SWPP)

	2016	2021	2026	2031
Potable	2.617	4.164	5.209	10.174
Nonpotable	1.367	5.266	5.266	39.221
Total	3.984	9.430	10.475	49.395

Water storage tank, South Point

III. Existing Water Reservations

- **What is a water reservation?**
- **A reservation is not...**
- **Existing West Hawai`i Water Reservations**

Kailapa, Kawaihae

What is a water reservation?

- **Kapu for future use**
- **CWRM protects it from other users**
- **More legal protections in Water Management Areas**
 - **In WMAs, reservations are by rule**
 - **In other areas, by CWRM action**
- **Can be for surface or ground water**
- **Can be triggered by:**
 - **CWRM action (e.g. IIFS, plan adoption)**
 - **BLNR action (water licensing / leasing)**
 - **HHC / DHHL request**

Kailapa, Kawaihae

A water reservation is not

- Immediate access to “wet water”
- To develop “wet water” we still need a place-based combination of:
 - Advocacy
 - CIP funds
 - Design for source, storage, transmission
 - Environmental Review
 - Agreements for access and operation w/county or others

W. Hawai`i Groundwater Reservations

Hydrologic Unit	Quantity Reserved (mgd)	Effective Date
Hāwī	0.148	9/18/2018
Māhukona	3.014	9/18/2018
Honoka`a	0.396	9/18/2018
Keauhou	3.398	8/17/2015

IV. Updates

- **Kawaihae**
- **North Kona Well Development**

NO
TRESPASSING
VIOLATORS
WILL BE
PROSECUTED

Water Tank, Kailapa, Kawaihae

Kawaihae / Kailapa Water Overview

- **Future water needs**
 - **2.2 mgd (potable)**
 - **36 mgd (nonpotable)**
- **Reservation for 2.2 mgd potable**
- **Actual development of water is challenging**
- **Water provided now by Kohala Ranch**
 - **High cost**
 - **Potential to cancel**
 - **Limited supply**

Water Tank, Kailapa, Kawaihae

2015 Water Development Study Options

Option	Considerations	Cost (2013 dollars)
Develop existing exploratory well, managed by DHHL	Desalinization required	\$14,900,000
Develop existing exploratory well, connect to existing system	Desalinization required, KR not interested	\$6,600,000
Secure Kehena Ditch water	Studies, improvements and agreements, treatment needed	\$27,000,000
Extend DWS system	Source, transmission needed	\$18,000,000 – \$28,100,000 + land
Develop Kawamata Well	Poor source, source purchase, transmission, storage needed	\$24,000,000 + land

Water Tank, Kailapa, Kawaihae

North Kona Well Development

- **Two potential DHHL well sites identified**
 - **Both in the “high level” aquifer**
 - **Landowner agreements in early stages**
- **”Ota Well”**
 - **Developed by NELHA and HHFDC**
 - **MOA to provide some credits**
 - **Not yet approved by CWRM**

NO
TRESPASSING
VIOLATORS
WILL BE
PROSECUTED

Water Tank, Kailapa, Kawaihae

Nīnau?

NO
TRESPASSING
VIOLATORS
WILL BE
PROSECUTED

Water Tank, Kailapa, Kawaihae