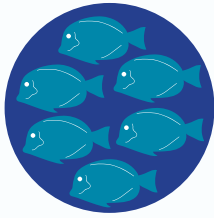


# Hā'ena Watershed Snapshot 2016



## TARGET FOOD FISH



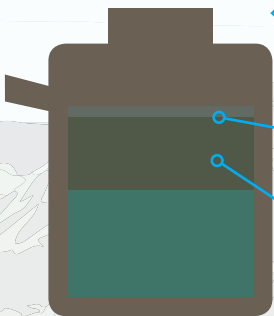
### Community-Based Subsistence Fishing Area

Established 2006 // In 2016 became the first CBSFA to have rules adopted. //

Monitoring Initiated 2016 // **INCLUDES THE FIRST NEAR-SHORE PU'UHONUA (REFUGE) IN HAWAII**

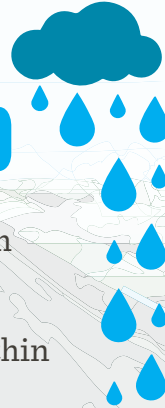
## AVERAGE ANNUAL RAINFALL

## WATER QUALITY



**3** of 45 Cesspools are within 200 feet of a stream.

**18** of 45 Cesspools are within 200 ft of the coastline.



"The kūpuna tell us there is less water in the streams, and the scientists tell us that not only is there less rainfall, but the spread of invasive trees means the forest holds onto even less water than they used to. We need healthy forests to ensure that Hā'ena still has clean, flowing water in the future."

- KAWIKA WINTER, DIRECTOR  
LIMAHULI GARDEN AND PRESERVE

## 76 DOCUMENTED SACRED PLACES (WAHI PANA/KAPU)

## RESIDENT AND VISITOR POPULATION (2010-15)



**1,985** Resident Population

THE 1900 CENSUS RECORDED SEVEN HOUSEHOLDS IN HĀ'ENA, ALL OF WHICH WERE COMPRISED OF NATIVE HAWAIIANS. IN 2010, THE CENSUS RECORDED 332 RESIDENCES, 23% OF WHICH IDENTIFIED AS NATIVE HAWAIIAN AND 43% WERE LISTED AS SEASONAL/VACATION USE.



**~1,000,000** visitors/year

## COMMUNITY INVOLVEMENT (2010-15)



**131** Volunteers

**18** Mālama 'Āina Careers



## NATIVE VEGETATION (2011)

Native Forest Cover **43%**



HAWAII  
CONSERVATION  
ALLIANCE



CONSERVATION  
CONNECTIONS

WWW.CONSERVATIONCONNECTIONS.ORG



Hawai'i Conservation Alliance  
FOUNDATION



#HAENALAWAIPONO



#LIMAHULI  
#UPPERLIMAHULIPRESERVE

# » LOCAL MEASURES OF *MAUKA-TO-MAKAI* HEALTH

The Watershed Snapshot project is a status report on ridge-to-reef health. In consultation with the Hawai'i Conservation Alliance, communities across the State identified metrics that would best define the health of their area, including socio-economic and cultural variables. In 2016, available data from researchers and resource management organizations were compiled to inform the selected metrics. Results are housed as a public resource in an online library of all related watershed-related data, and can be found at [hca.maps.arcgis.com](http://hca.maps.arcgis.com). The information is compiled as a suite of communication tools to help inform, guide, and garner support for more effective *mauka-to-makai* management efforts.

Visit [www.hawaiiconservation.org/communitysnapshot](http://www.hawaiiconservation.org/communitysnapshot) for more information.

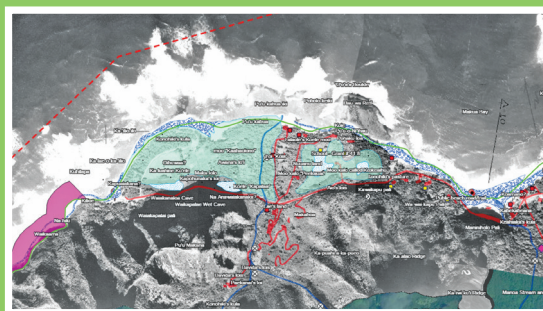
## HĀ'ENA

Remote in nature, the *ahupua'a* of Hā'ena is the westernmost land in the *moku* (district) of Halele'a on the northwest coast of Kaua'i. Hā'ena is comprised of two valleys, each with a stream – Mānoa and Limahuli. Limahuli stream drains through Limahuli Valley and into the ocean, providing an important freshwater input to Hā'ena's ocean environment. Traditionally, the watershed and offshore has been an important subsistence and cultural resource for native Hawaiians and local families. In 2015, Hā'ena became the first Community Based Subsistence Fishing Area to have rules adopted.



In March 2016, a water quality training with community members resulted in data collection from two sites. Communities received water quality kits and are in the process of developing monitoring plans for on-going data collection.

## STATEWIDE WATERSHED HEALTH DATA



To access statewide, publicly available watershed-related data compiled from various agencies, visit the online Watershed Health Web Map at [hca.maps.arcgis.com](http://hca.maps.arcgis.com). Also available is the Hā'ena Web Map, which features data from the community snapshot metrics used for this project and additional requested data.

# » WATERSHED SNAPSHOT PROGRESS 2012-16



<< Honolulu to Napili, Maui

- 8 Community Consultations Statewide
- Watershed Boundary Maps, Scope of Communication Tools and Metrics Confirmed

2013



<< Waimea, Hawai'i Island

- Convening of Communities Statewide to Solicit Interest in Snapshot Participation
- Intellectual Property, Data Sharing Agreement, HCA ARC GIS Tool Demo Data Discussion, Communications 101

2014



<< Hā'ena, Kaua'i

- Site Planning Meeting on O'ahu and Moloka'i for 6 Volunteer Communities
- Maps with Available Data, Metrics Checklist, Site Plan Development, Additional 2-3 Metric Selection, Project Timeline, Metric Data Compilation

2015



<< Maunaloa Bay, O'ahu

- 3 Community Engagements
- Watershed Health Web Map and Snapshot Web Maps for each of the 3 sites
- Water Quality: Training, Consult, Collection, Supply Kits and Monitoring Plans
- Community Data Gathering: Community Involvement in Resource Management, Place Names, Local Knowledge
- Lessons Learned Workshop
- IUCN WCC Pavilion Event

2016