

2018 Joint Government Water Conference

Hawaii State Department of Health | Clean Water Branch

Polluted Runoff Program Strategy



Nu'uuanu Stream/Wikimedia



Lo'i Kalo/Wikimedia



Honokana'a/Greg Takeshima

Nonpoint Source Pollution in Hawai'i

Basically:

- Any water pollution not from a point source (as defined by §502(14) of the Clean Water Act)
- Precipitation, etc. transports pollutants into water bodies and ultimately into State coastal waters

Effects:

- Negative impacts on surface and groundwater quality, drinking water supply, public health, coral reefs, marine life, cultural resources and practices, recreation, and tourism

Major Sources:

- Onsite Disposal Systems (nutrients, pathogens)
 - Cesspools
- Urban Areas (nutrients, pathogens, toxic chemicals)
 - Development/construction; impervious surfaces; hydromodifications
- Agriculture (nutrients, sediment, toxic chemicals)
- Conservation Land (nutrients, sediment)

Polluted Runoff Control Program

Mission:

To protect and improve the quality of Hawai'i's water resources by preventing & reducing NPS pollution

Clean Water Act §319(h):

- Enacted in 1987 and administered by the U.S. Environmental Protection Agency
- Requires states to adopt NPS management programs (Hawai'i's PRC Program) and address NPS pollution and achieve/maintain water quality standards
- Provides annual funding to implement PRC program

Activities:

- Fund projects that prevent/reduce NPS pollution
- Education and outreach
- Develop and implement Coastal Nonpoint Pollution Control Program (CNPCP) management measures (with DBEDT's Office of Planning)

Clean Water Act §319(h) Grant



2019 Federal Grant: ~\$1,200,000

Program Funds: \$600k

- Travel
- Supplies
- Equipment
- Personnel

Project Funds: \$600k

- NPS pollution control projects*
- Water quality monitoring*
- Education and outreach
- Technical assistance

*in watersheds with approved watershed-based plans

Clean Water Act §319(h) Grant Restrictions

We do not fund:

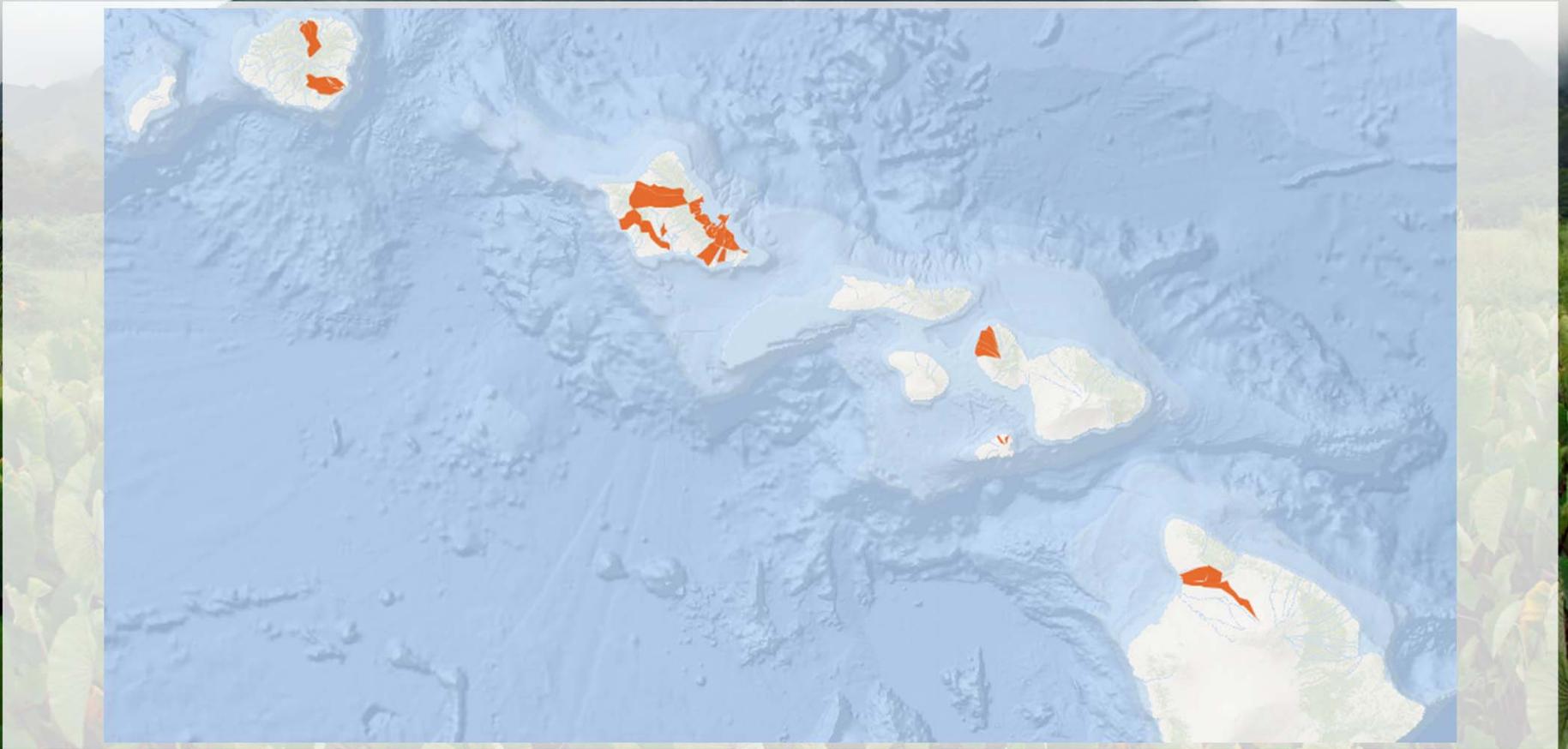
- Permit requirements for point-source discharges
- Research
- Projects in watersheds that do not have approved watershed-based plans
- Watershed plan development*

*Due to current lack of available funds

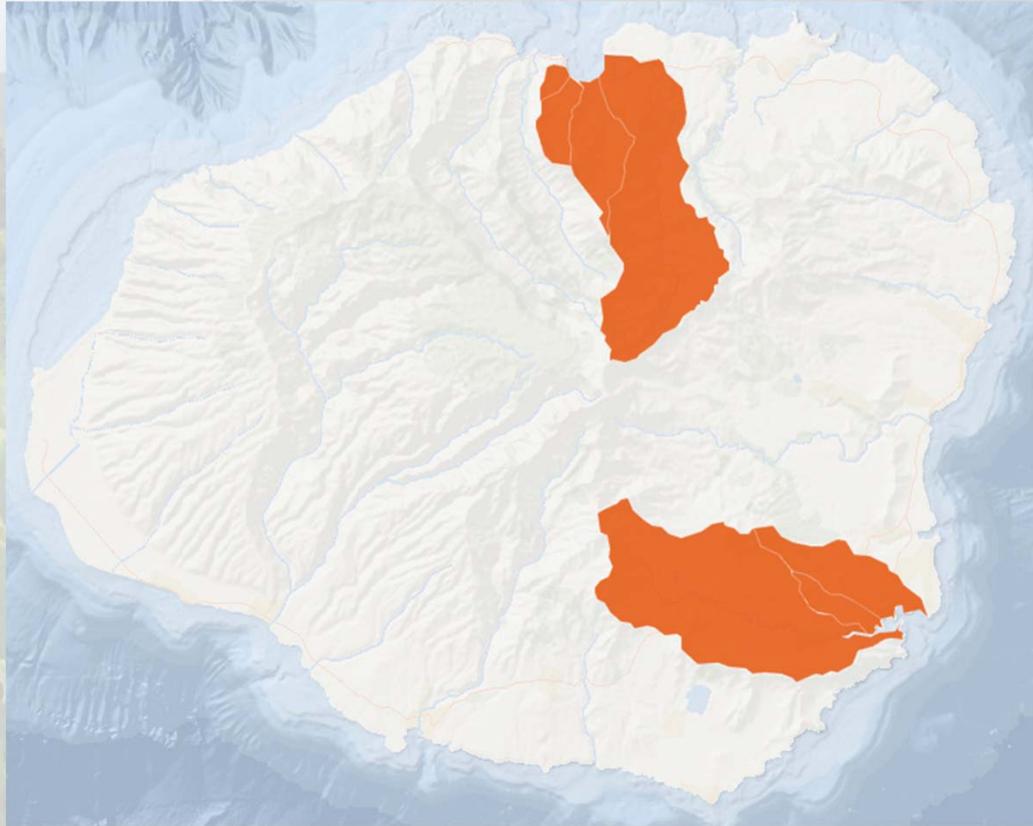
Watershed-Based Plans:

- Identify NPS issues and detail projects prioritized to address these issues
- Approved by the PRC program
- Must meet the EPA's nine requirements for effective watershed-based plans

Watersheds with Approved Plans



Watersheds with Approved Plans on Kauaʻi



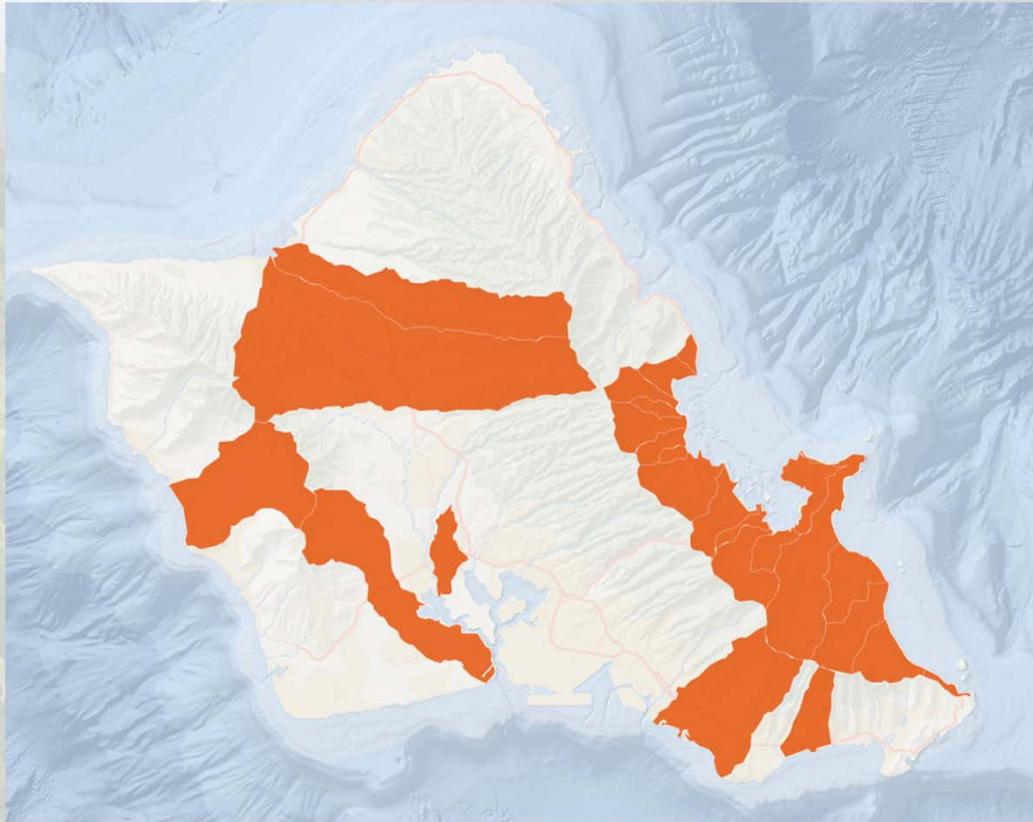
Hanalei Bay Watersheds

- Hanalei
- Waioli
- Waikoko
- Waipa

Nawiliwili Bay Watersheds

- Nawiliwili
- Huleʻia
- Puali

Watersheds with Approved Plans on O'ahu



Ala Wai Watersheds

- Manoa
- Ala Wai

Honouliuli Watershed

Kaiika Watersheds

- Paukaui
- Ki'iki'i

Kapakahi Stream Watershed

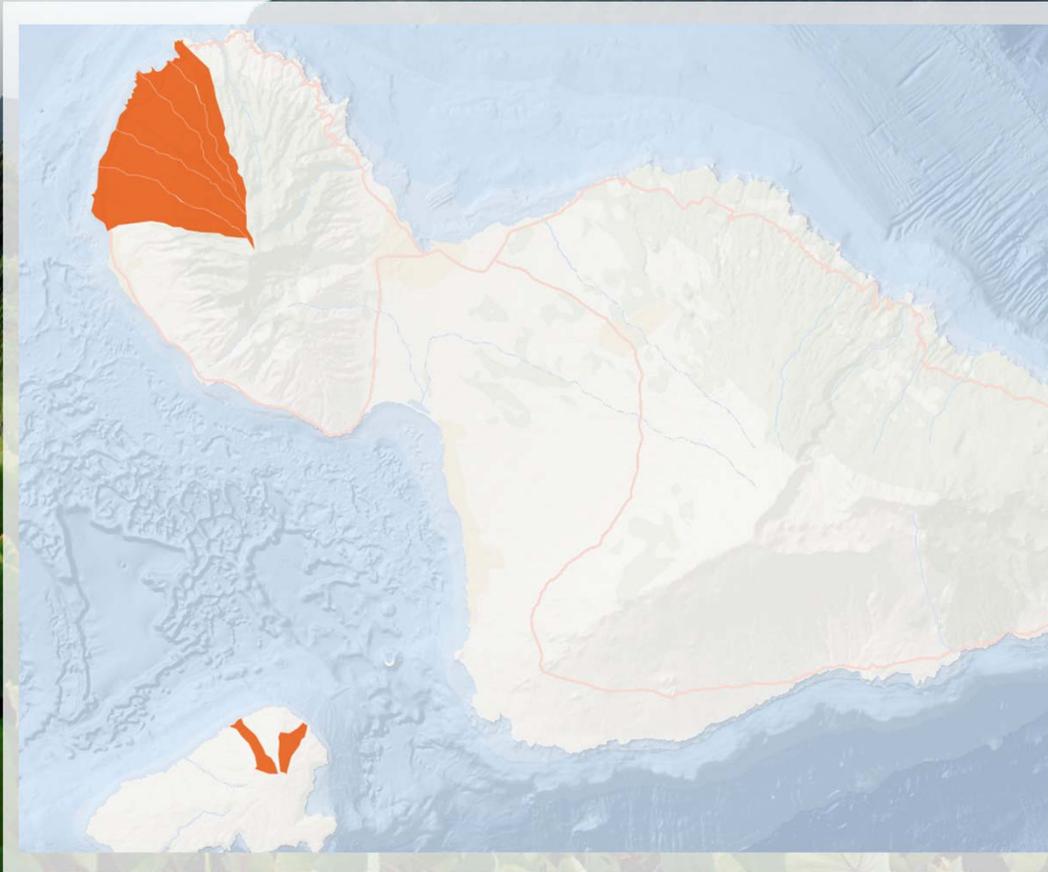
Ko'olaupoko Watersheds

- Waikane
- Waiahole
- Hakipu'u
- Waihe'e
- Waianu
- Kualoa
- Ka'alaea
- Waimanalo
- Kahalu'u
- Haiamoa
- Makapu'u
- Kahawai
- **He'eia**
- Kawainui
- Kane'ohe
- Kawa
- Pu'u Hawaiiiloa
- Ka'elepulu
- Kea'ahala

Ma'ili'ili Watershed

Wailupe Watershed

Watersheds with Approved Plans on Maui



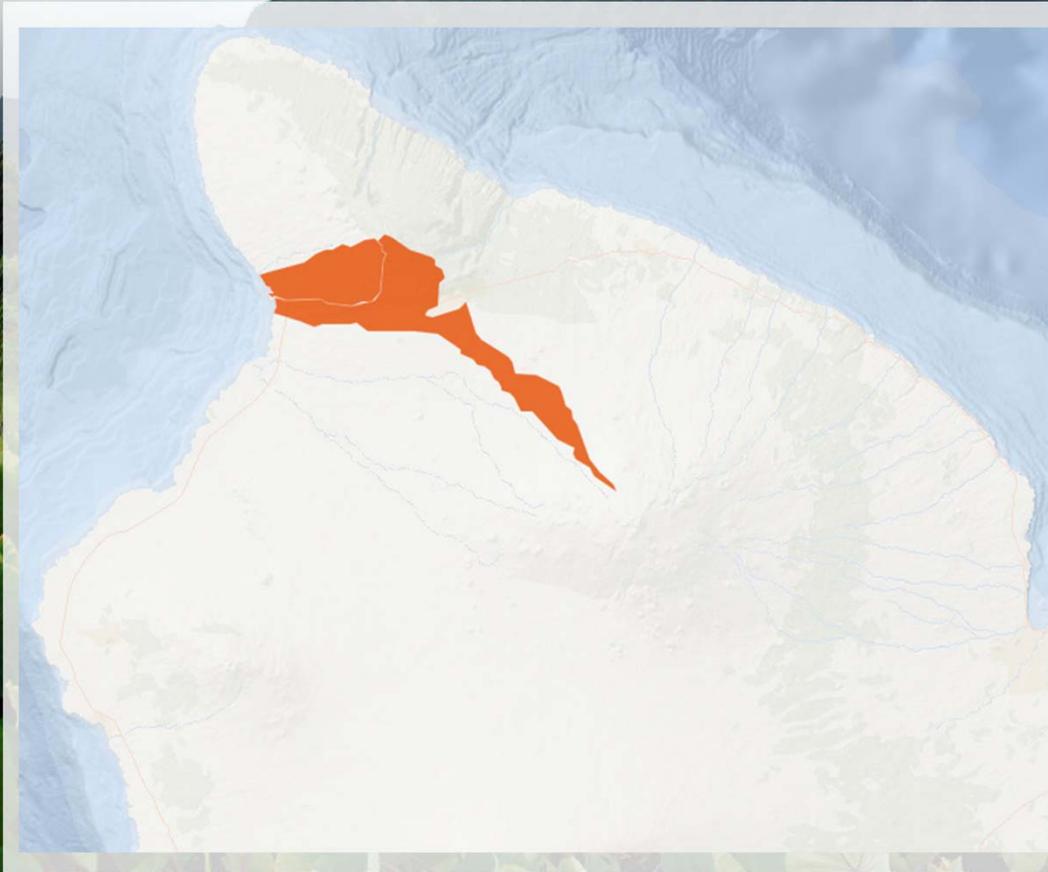
West Maui Watersheds

- Wahikuli
- Honokowai
- Honokahua
- Honolua
- Kahana

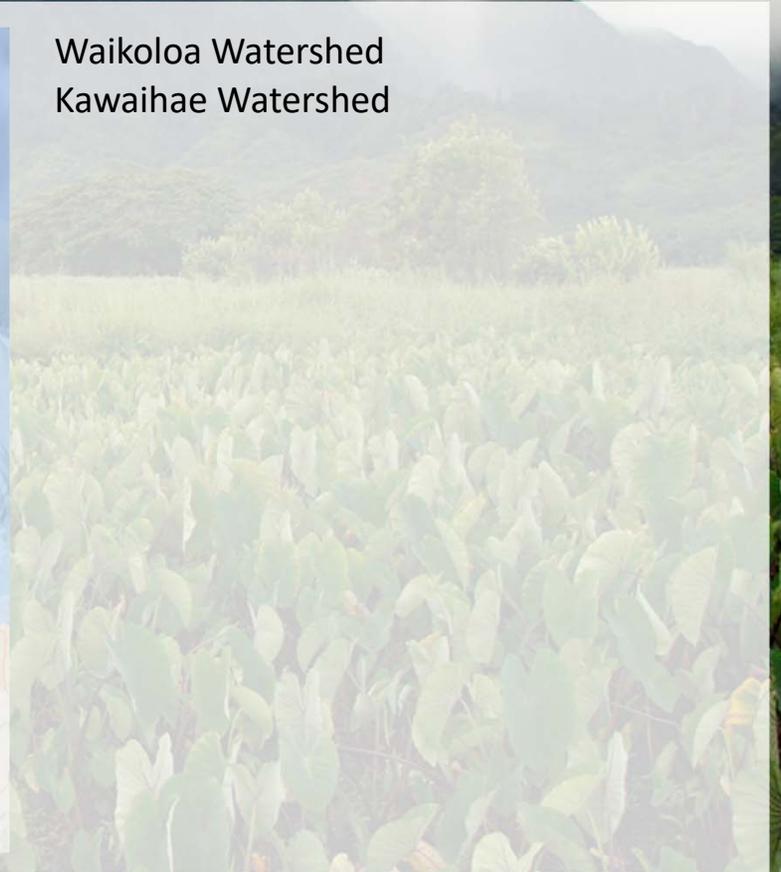
Hakoawa Watershed (Kaho'olawe)

Kaulana Watershed (Kaho'olawe)

Watersheds with Approved Plans on the Big Island



Waikoloa Watershed
Kawaihae Watershed



Current Project – The Waipa Foundation

Watershed Implementation Project for the Ahupua'a of Waipa:

- Implement BMPs throughout the watershed: replace three cesspools; conduct streambank and riparian restoration; feral ungulate control; promote taro lo'i BMPs; establish constructed wetlands; and install livestock fencing
- 30 months (ends August 2018)
- Phase II awarded, expands BMP implementation

Targeted Pollutants:

- Total nitrogen, total phosphorous, total suspended solids, fecal coliform bacteria

\$386,291.24	Grant funds
\$108,645.00	In-kind match
<hr/>	
\$494,936.24	Total project cost



Waipa Stream stabilization and restoration/Matt Rosener

Current Project – O‘ahu RC&D

Agricultural Stewardship in Ma‘ili‘ili Watershed:

- Develop a minimum of ten conservation plans for farmers in Ma‘ili‘ili watershed that complies with NRCS requirements (with priority to properties along streams); assist farmers with grading & grubbing permit exclusions; and establish a BMP fund to cost-share implementation of practices identified in the plans
- 24 months (ends December 2018)

Targeted Pollutants:

- Total nitrogen, total phosphorous, sediment

\$146,302.88	Grant funds
\$43,732.63	Settlement funds
\$61,677.36	In-kind match
<hr/>	
\$251,712.87	Total project cost



Current Project – University of Hawai‘i Sea Grant

He‘eia Fishpond Mangrove Island Removal Project:

- Create a staging area, removing mangroves and implementing BMPs to reduce runoff along the southwestern wall of the fishpond; remove mangroves from “mangrove island” in the fishpond; replant the staging area and island with native plants and implement erosion control measures
- 24 months (ends March 2019)

Targeted Pollutant:

- Total phosphorous

\$189,504.70 Grant funds
\$57,571.97 Match
<hr/>
\$247,076.67 Total project cost



Awarded Project – Maui Land & Pineapple

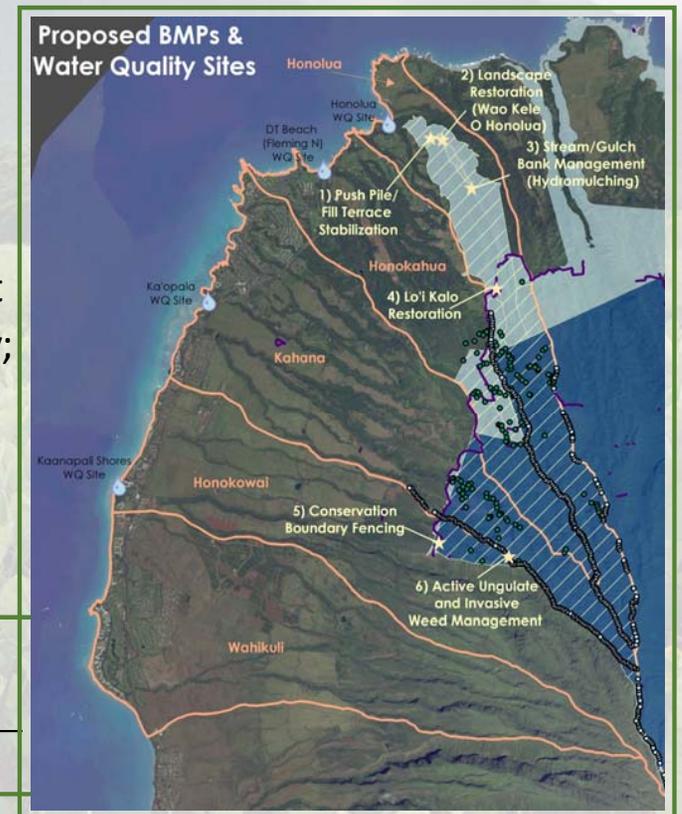
Ahupua'a Approach to Watershed Practices:

- Assess and stabilize existing push piles; restore 6.7 acres of landscape using native plants; hydroseed exposed streambanks and hillsides with native seeds; restore abandoned, historic lo'i kalo as constructed wetlands; conduct ungulate fence checks and perform maintenance as necessary; and conduct ungulate and invasive weed management
- 36 months (NTP to be determined)

Targeted Pollutants:

- Sediment, turbidity, total nitrogen, total phosphorous

\$599,999.99	Grant funds
\$549,557.00	In-kind match
\$1,149,556.99	Total project cost



Current Project – University of Hawai‘i Sea Grant

Implementation of BMPs in the Wai‘ula‘ula Watershed:

- Implement BMPs in Waimea, at the Waimea Shopping Center and at Waimea Nature Park (Ulu La‘au)
- BMPs include stream riparian corridor stabilization, erosion control, native plant restoration, and raingarden installation
- 54 months (ends August 2018)

Targeted Pollutants:

- Total nitrogen, sediment, total phosphorous

\$447,467.81	Grant funds
\$111,866.95	In-kind match
<hr/>	
\$559,334.76	Total project cost



Streambank stabilization of Waikoloa Stream at Waimea Nature Park/Joanna Yeh

Project Results

2017 & 2018 Project Funds:

- \$2,379,687.63 Grant funds contracted/awarded
- \$1,168,931.76 Match
- \$3,548,619.39 Total funds dedicated to improving water quality

Reported Load Reductions from Projects (2017):

- Total nitrogen: 6,506 lbs
- Total phosphorous: 1,591 lbs
- Sediment: 2,521 tons

He'eia Stream Delistings:

- 2016: Total phosphorous (wet season) & turbidity (wet season)
- 2018: Nitrate/nitrite (wet season)

How to Get Funded

State Procurement Rules Apply:

- Annual request for proposals (implementation projects)
- Other program RFPs (monitoring, planning, other special projects)
- RFP exemption for contracts with other government agencies

Program Projects:

- Generally 3 – 4 years in length
- Average budget \$400,000
- 25% non-federal in-kind match required

Evaluation Criteria for Proposed Projects:

- **Water Quality Improvements**
- Existing PRC program investment in a given watershed
- Partnership opportunities to leverage resources and/or public support
- Cost

Additional Project Information

PRC Program Viewer:

The screenshot displays the 'Watershed Based Plans' section of the PRC Program Viewer. The interface includes a search bar at the top right with the placeholder text 'Find watershed based plan using name'. Below the search bar, a table lists 15 watershed-based plans. The table has three columns: 'Name', 'Island', and 'Status'. The 'Name' column contains the names of various watersheds, the 'Island' column lists the islands (O'ahu, Kaho'olawe, Kaua'i, Hawai'i, Maui, and Hawai'i), and the 'Status' column indicates the current status of each plan (Approved, Needs Updating, or Under Review).

Name	Island	Status
Ala Wai Watershed	O'ahu	Approved
Hakioawa and Kaulana Watersheds	Kaho'olawe	Approved
Hanaiei Bay Watersheds	Kaua'i	Approved
Hilo Bay Watersheds	Hawai'i	Needs Updating
Honouliuli Watershed	O'ahu	Approved
Kaika Bay Watersheds	O'ahu	Approved
Kapakahi Stream Watershed	O'ahu	Approved
Ko'olaupoko Watersheds	O'ahu	Approved
Ma'i'i'ili Watershed	O'ahu	Approved
Nawiliwili Bay Watersheds	Kaua'i	Approved
Pelekane Bay Watershed (Kawaihae Watershed)	Hawai'i	Approved
Southwest Maui Watersheds	Maui	Under Review
Wa'u'ula'ula Watershed (Waikoloa Watershed)	Hawai'i	Approved

Mahalo!

Website:

hawaii.gov/doh/pollutedrunoffcontrol

Contact:

michael.burke@doh.hawaii.gov