FUNDING SOURCE WATER PROTECTION

DEPARTMENT OF HEALTH
Wellhead Protection – Financial Assistance Program

Utilizes 15% Drinking Water State Revolving Fund set-aside funds to assist water utilities to plan and implement drinking water source protection activities.

3rd Annual Joint Government Water Conference
Courtyard @ King Kamehameha's Kona Beach Hotel
Kailua-Kona, Hawaii
August 11, 2015

HAWAII STATE DEPARTMENT OF HEALTH

Wellhead Protection – Financial Assistance Program

- **Who is eligible for financial assistance?**

(1) All community and non-transient, non-community public water systems that utilize groundwater as a source of water, including federally owned public water systems. (PWS are eligible for funding & are waivered from State procurement requirements.)

(2) Government Agencies

(3) Planning agencies and community groups who are partnered with a public water system on work that protects drinking water sources, or have the authority for protection activities (land use,…) on a State or County-wide basis. (Funding will pass through eligible entities.)

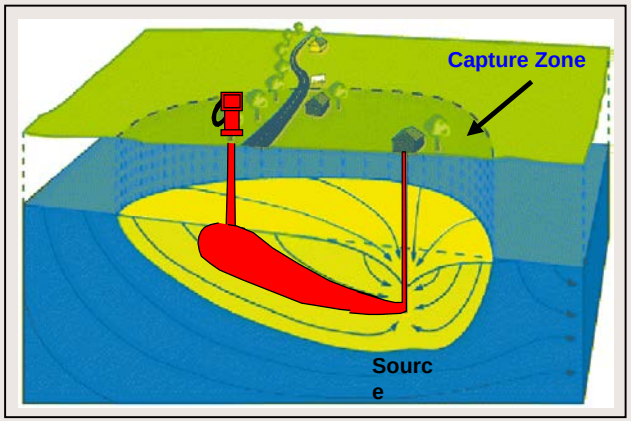
Wellhead Protection – Financial Assistance Program

ELIGIBLE ACTIVITIES (Planning)

- Local Wellhead Protection Workgroup
- Protection Strategies/Plans
- Prioritizing land for protection/control
- County water and planning documents (that incorporate/address drinking water source protection)

Wellhead Protection – Financial Assistance Program

ELIGIBLE ACTIVITIES (Planning)

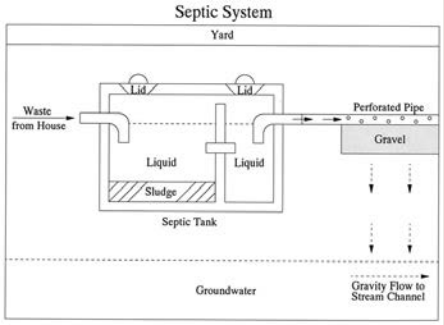


- Delineation activities
- PCA & land use inventory
- Management activities
- Contingency/Emergency response
- New drinking water well activities

Wellhead Protection – Financial Assistance Program

ELIGIBLE ACTIVITIES (Implementation)

- Educating public officials
- Removing USTS & OSDS
- Hazardous Materials Collections
- Posting wellhead protection signs
- Provide technical assistance



Wellhead Protection – Financial Assistance Program

ELIGIBLE ACTIVITIES

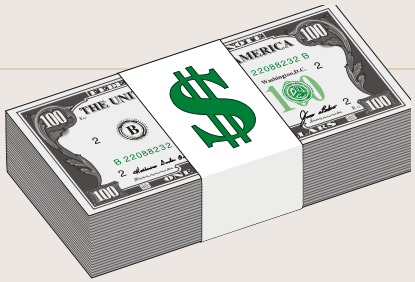
- Local wellhead protection staff
- Education and Outreach activities
- Other projects may be submitted for evaluation and approval.

Wellhead Protection – Financial Assistance Program

INELIGIBLE ACTIVITIES

- **The following activities are ineligible for financial assistance under the Hawaii Wellhead Protection – Financial Assistance Program:**
  - **Land acquisition (easements are allowed)**
  - **Infrastructure and Construction (Drinking Water)**

Wellhead Protection – Financial Assistance Program



PROGRAM FUNDING

As of May 8, 2015:

Projects Funded:	**$ 3,076,526.00**
Currently Available:	**$ 46,000.00**
Projected Funds (beginning in FY2016)	**$ 500,000.00**
Pending DWSRF Funding:	**(annually)**

Wellhead Protection – Financial Assistance Program

FUNDED PROJECTS

- Maui Department of Water Supply (2)
- University of Hawaii (SWAP/OSDS)
- Hawaii Department of Water Supply
- County of Hawaii – Finance Department
- Kauai Department of Water
- West Maui Land Company
- Hawaiian Beaches Water Company
- Kawela Plantation Homeowners Association
- Others

MORE ABOUT THESE PROJECTS LATER →

Wellhead Protection – Financial Assistance Program

NEW PROPOSALS & APPLICATIONS

- New proposals and applications for protection planning and implementation projects will begin in FY2016 (October 2015).
- Proposals/Projects may be multiple years (2).
- Approximately $500,000 will be available for protection projects (annually).

Wellhead Protection – Financial Assistance Program

NEW PROPOSALS & APPLICATIONS

- **Projects may not be funded 100%.**
- **Final approved projects will require a contractual agreement.**
- **Funding will be on a reimbursement basis (upon submittal of invoices/documentation).**
- **SDWB will conduct meetings/training to solicit new Proposals/Applications in the Fall 2015.**

Wellhead Protection – Financial Assistance Program

WHAT HAVE WATER SYSTEMS DONE?

PROTECTION PROJECTS

DEPARTMENT OF HEALTH
Wellhead Protection – Financial Assistance Program

3rd Annual Joint Government Water Conference
Courtyard @ King Kamehameha's Kona Beach Hotel
Kailua-Kona, Hawaii
August 11, 2015

HAWAII STATE DEPARTMENT OF HEALTH

Wellhead Protection – Financial Assistance Program

FUNDED PROJECTS

WEST MAUI LAND COMPANY

"Implementation of a PWS Source Water Protection Program"

CONTACT:	***Dave Minami***
	Lea Tamayose
GRANT PERIOD:	***06/13/2012 to 12/31/2014***
FUNDING:	***$174,298.77***

Vulnerability Assessments / baseline studies conducted in the watershed? Y (Y/N)

If yes, cite the document & date: SWAP

Emergency Spill Response Plan available? N (Y/N)

Responding Agency:

Potential Polluting Activities Near the Source:

1. Hikers/hunters
2. Piggery located just 1000+ feet beyond the well site
3. Old shaft with abandoned equipment located just 1000+ feet beyond the well site.
4.
5.

Potential Sources of Pollution	Minimum Horizontal Distance From Pollution Source	Estimated distance upgradient from source (feet)
Any sewer line	50 feet	
Cesspool, septic tank, or subsurface sewage leaching field	1000 feet	1000+ ft
Hazardous waste landfills, ponds, or chemical storage	1000 feet	
Treated effluent injection well	1/4 mile	

Hazardous Materials/Waste Removal for old Pioneer Mill skimming shaft.

Old shaft located approximately 1,000 feet from the well site. Abandoned equipment in the shaft poses a contamination threat to the well.

Wellhead Protection – Financial Assistance Program

- OSDS Maintenance Project in SWP Area
- Protection Fencing around open reservoirs near wells
- Secondary Containment of Hazardous Materials/ Chemical near wells

Wellhead Protection – Financial Assistance Program

FUNDED PROJECTS

COUNTY OF HAWAII – FINANCE DEPARTMENT

"Honokaa Sewer Project–Connecting OSDS in the Haina SWP Area"

CONTACT: ***Michael Okumoto***

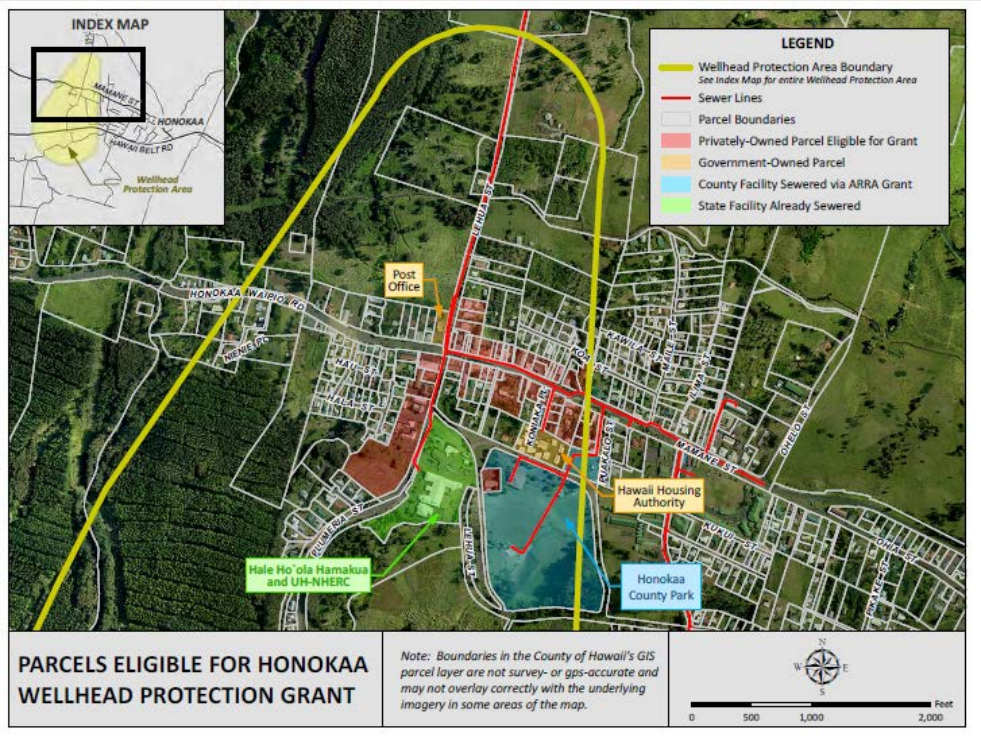
GRANT PERIOD: ***06/08/2012 to 01/06/2014***

FUNDING: ***$250,000.00***

Wellhead Protection – Financial Assistance Program

PROJECT HIGHLIGHTS

- Connected 33 OSDS in Haina Water System SWP Area to the Honokaa Sewer Project.



Wellhead Protection – Financial Assistance Program

FUNDED PROJECTS

HAWAII DEPARTMENT OF WATER SUPPLY

"Implementation of a County Source Water Protection Program"

CONTACT: ***Kawika Uyehara***

GRANT PERIOD: ***08/14/2012 to 12/31/2015***

FUNDING: ***$200,000.00***

Wellhead Protection – Financial Assistance Program

PROJECT HIGHLIGHTS

- Household Hazardous Waste Collections
- Public Education
- GIS Data Management
- Protection Video/Public Access Television

Wellhead Protection – Financial Assistance Program

FUNDED PROJECTS

KAUAI DEPARTMENT OF WATER

"Project WET for Source Water Protection"

CONTACT: ***Kimberly Tamaoka***

GRANT PERIOD: ***12/18/2012 to 12/31/2015***

FUNDING: ***$230,000.00***

Wellhead Protection – Financial Assistance Program

PROJECT HIGHLIGHTS

- **Develop Source Water Curriculum for Grade 5**
- **Project WET Teachers' Workshops**
- **Conduct Make A Splash and mini-Make A Splash Events**
- **Provide Materials and Resources for Teachers**
- **Developing Water Pollution and Water Quality Curriculum for Project WET with the assistance of SDWB and HRWA.**

Wellhead Protection – Financial Assistance Program

FUNDED PROJECTS

KAWELA PLANTATION HOMEOWNERS ASSOCIATION

"Implementation of a PWS Source Water Protection Program"

CONTACT: ***Juanita Colon***

GRANT PERIOD: ***11/27/2013 to 12/31/2015***

FUNDING: ***$130,000.00***

Wellhead Protection – Financial Assistance Program

PROJECT HIGHLIGHTS

- (1).
- (2).
- (3).
- (4).

Wellhead Protection – Financial Assistance Program

FUNDED PROJECTS

HAWAIIAN BEACHES WATER COMPANY

"Implementation of a PWS Source Water Protection Program"

CONTACT:	***Kate Drago***
	Mark Prescott
GRANT PERIOD:	***12/28/2012 to 06/30/2015***
FUNDING:	***$57,000.00***

Wellhead Protection – Financial Assistance Program

PROJECT HIGHLIGHTS

- OSDS Upgrade near well.
- Protection Fencing around facility/wells
- Secondary Containment of Hazardous Materials/ Chemical near wells

Vulnerability Assessments / baseline studies conducted in the watershed? N (Y/N)

If yes, cite the document & date: n/a

Emergency Spill Response Plan available? Y (Y/N)

Responding Agency:

Potential Polluting Activities Near the Source:

1. pastural/agricultural (1 mile up gradient)
2. cesspool (150 ft down gradient)
3.
4.
5.

Potential Sources of Pollution	Minimum Horizontal Distance From Pollution Source	Estimated distance upgradient from source (feet)
Any sewer line	50 feet	n/a
Cesspool, septic tank, or subsurface sewage leaching field	1000 feet	150 ft. down gradient
Hazardous waste landfills, ponds, or chemical storage	1000 feet	n/a
Treated effluent injection well	1/4 mile	n/a

Wellhead Protection – Financial Assistance Program

FUNDED PROJECTS

MAUI DEPARTMENT OF WATER SUPPLY

"Implementation of a County Source Water Protection Program"

CONTACT:	***Eva Blumenstein***
	Alex Butarro
GRANT PERIOD:	***12/18/2012 to 06/30/2015***
FUNDING:	***$1,500,000.00***

Source Protection Financial Incentives

DWS provides financial and technical assistance to retrofit or upgrade potentially contaminating operations within capture zones of DWS wells

Used Oil Recycling and Disposal
Contract a licensed Used Oil Recycler to test for contamination by chlorinated solvents and haul away for disposal.

Used Automotive Battery Recycling and Disposal
Instruct business owners on proper battery recycling and disposal practices and direct them to licensed battery recycling businesses. Collect and deliver plastic-cased batteries to a licensed recycler.

Abandoned Vehicles
Remove as many derelict and abandoned vehicles as possible capture zones through partnership with Maui County's Solid Waste Division's Abandoned Vehicles Program.

Source Protection Financial Incentives

Cesspool Remediation Program

Four types of On Site Sewage Disposal Systems (OSDS) systems are defined by the State Department of Health;

•Class I systems: any system receiving soil treatment with disposal through bed, trench or infiltration/chambers)

•Class II: septic systems discharging to a seepage pit

•Class III: aerobic units discharging to a seepage pit

•Class IV: cesspools

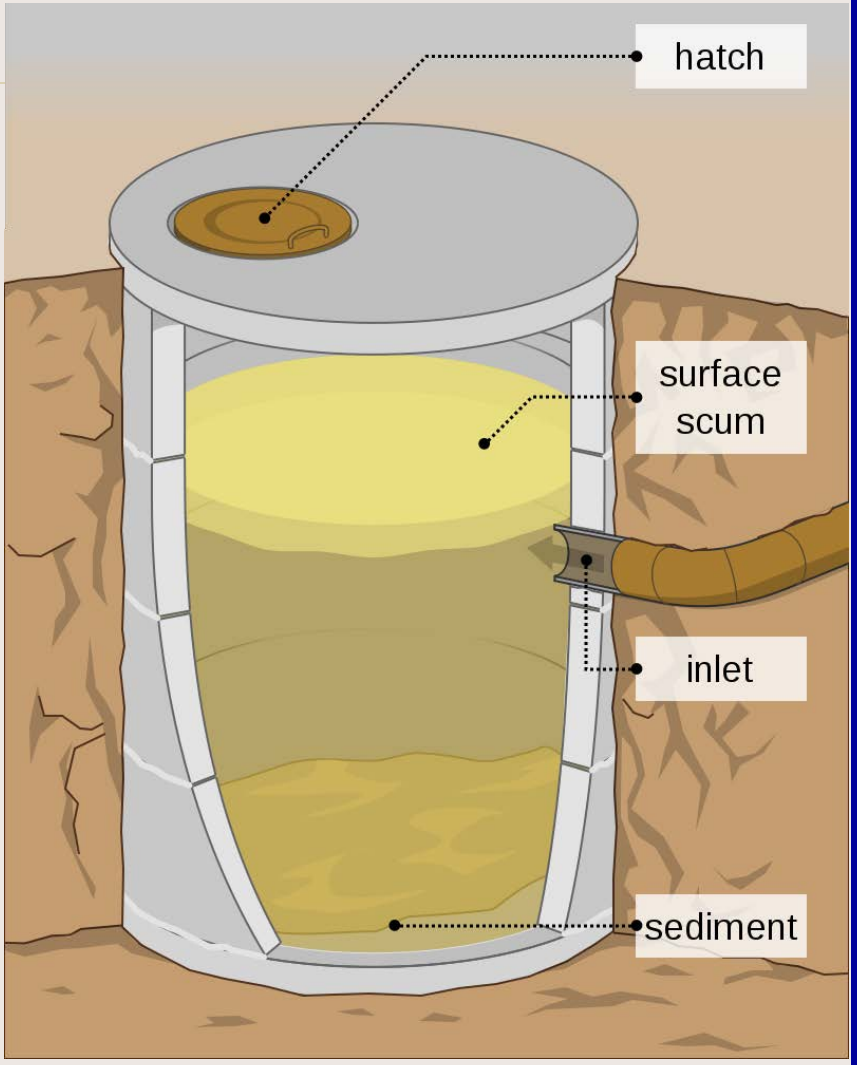
Cesspools account for 77 percent of released sewage effluent in Oahu study, the majority reaching the groundwater.

Pathogens:
Concern within the 2-year time of travel zone

Nitrate:
96 % of the OSDS nitrogen released coming from cesspool.

Typical nitrogen concentration in cesspool effluent is twice the concentration compared to OSDSs that receive some treatment.

Upgrade cesspools within the capture zones to reduce the contaminant load to the county water system.



CAT

ENTERING PUBLIC WATER PROTECTION AREA

REPORT SPILLS AND ILLEGAL DUMPING:

(808) 984-8230

FIGURE 5

Page 8
Wellhead Protection Sign Construction Plan

County of Maui DWS

Figure 1
2246 Main Street Wellhead Protection Signage
MULIWAI
HIGH
NIOLOPUA
MAIN
MOANI
PUAHAU
2246 Main Street Wailuku Sign
WELLS
AUPUNI
KOELI
AWAPUHI
KAOHUA
Legend
Maui and Molokai Signs
Maui_Roads
mol modflow whpa_2yr 04_11
mol modflow whpa_10yr 04_11
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Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
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Wellhead Protection – Financial Assistance Program

IN CLOSING

- Begin thinking of planning and implementation projects that could be conducted at or around your well or intake to protect your drinking water source(s).

- **New proposal/applications begin later this year.**