

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
University of Hawaii – Campus Center Ballroom
Honolulu, Oahu Hawaii
August 6, 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 waived 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

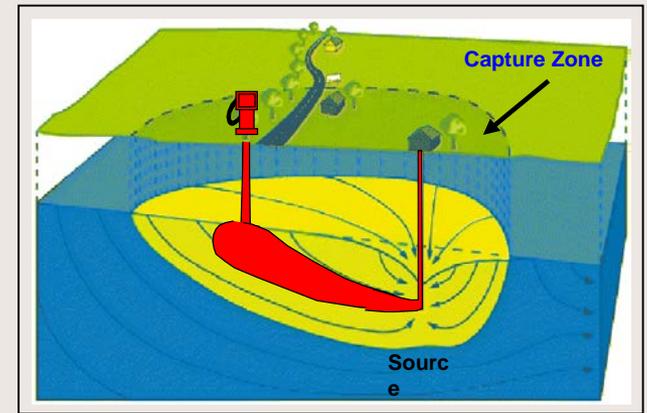
ELIGIBLE ACTIVITIES (Planning)

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

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ELIGIBLE ACTIVITIES (Planning)

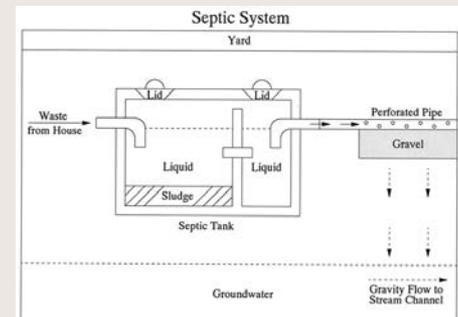
- **Delineation activities**
- **PCA & land use inventory**
- **Management activities**
- **Contingency/Emergency response**
- **New drinking water well activities**



Wellhead Protection – Financial Assistance Program

ELIGIBLE ACTIVITIES (Implementation)

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



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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
<u>Pending DWSRF Funding:</u>	(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

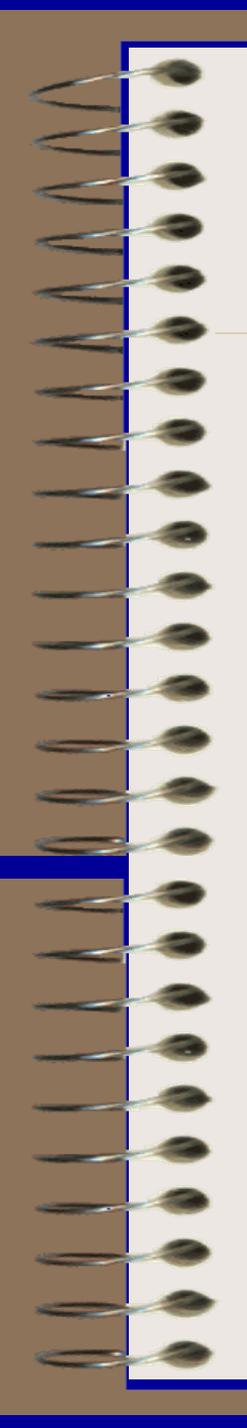
NEW PROPOSALS & APPLICATIONS

- **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).**

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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.**

A graphic of a spiral-bound notebook with a brown cover and silver spiral binding on the left side. The notebook is open to a white page with a blue border at the top and bottom.

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
University of Hawaii at Manoa – Campus Center Ballroom
Honolulu, Oahu, Kauai
August 6, 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	<u>1000+ ft</u>
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



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FUNDED PROJECTS

COUNTY OF HAWAII – FINANCE DEPARTMENT

“Honokaa Sewer Project–Connecting OSDS in the Haina SWP Area”

CONTACT: *Michael Okumoto*

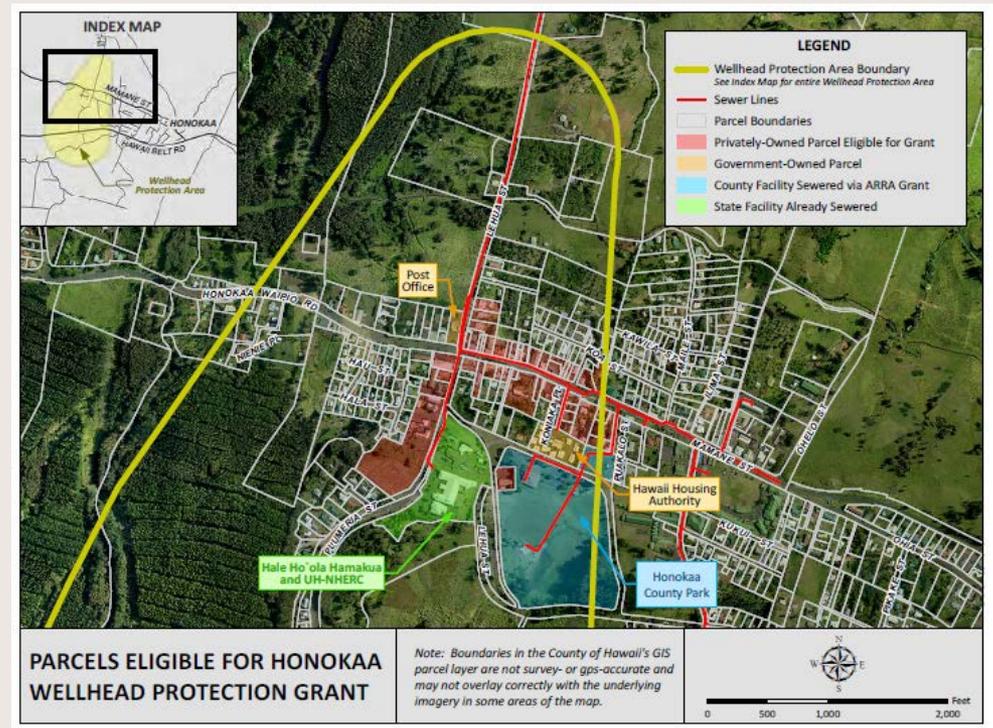
GRANT PERIOD: *06/08/2012 to 01/06/2014*

FUNDING: *\$250,000.00*

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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*

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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	<u> n/a </u>
Cesspool, septic tank, or subsurface sewage leaching field	1000 feet	<u> 150 ft. down gradient </u>
Hazardous waste landfills, ponds, or chemical storage	1000 feet	<u> n/a </u>
Treated effluent injection well	1/4 mile	<u> n/a </u>



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:

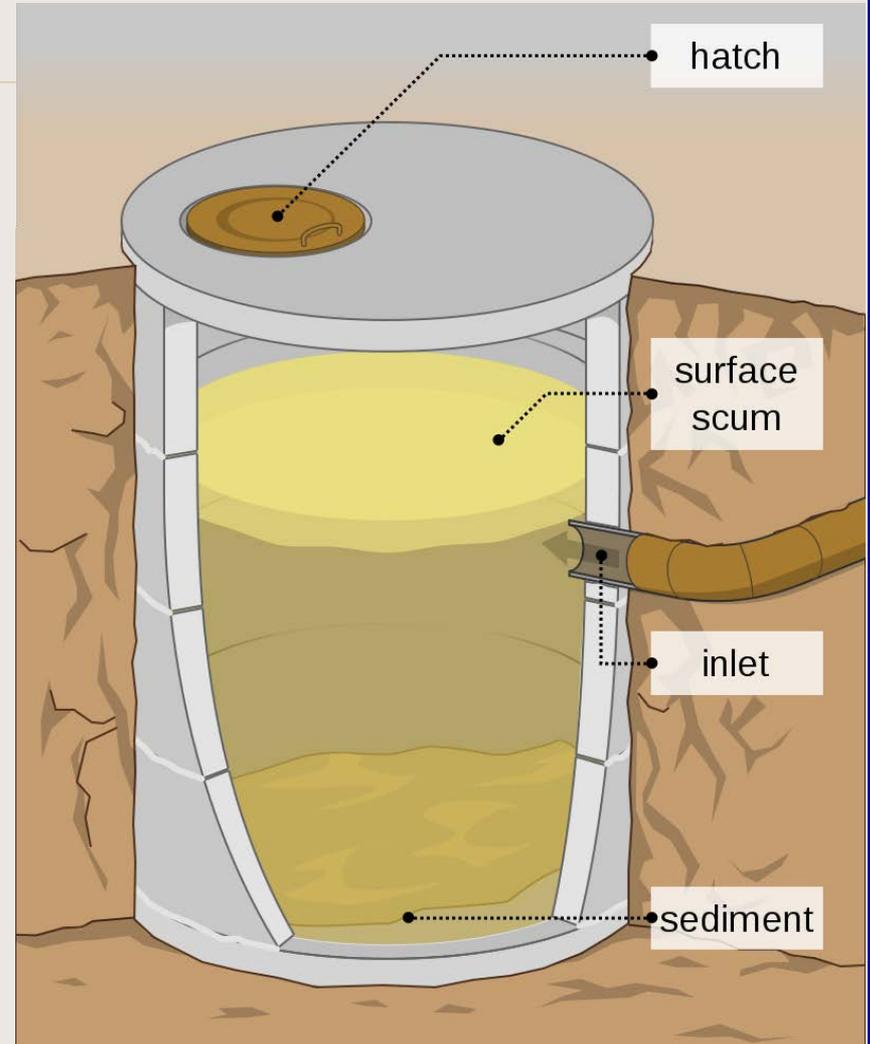
Concern within the 2-year time of travel zone

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.







ENTERING PUBLIC WATER PROTECTION AREA



**REPORT SPILLS AND ILLEGAL DUMPING:
(808) 984-8230**

FIGURE 5

Figure 1

2246 Main Street Wellhead Protection Signage







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.**