

# **A GUIDE TO GREYWATER SUMPS**

**SANTA CRUZ COUNTY ENVIRONMENTAL HEALTH SERVICE**

**701 Ocean Street, Room 312**

**Santa Cruz, CA 95060 (831) 454-2022**

**[www.sceeh.com](http://www.sceeh.com)**

This leaflet will assist you in obtaining a permit and installing a greywater sump. If you have further questions, please call the Environmental Health Service at 454-2022.

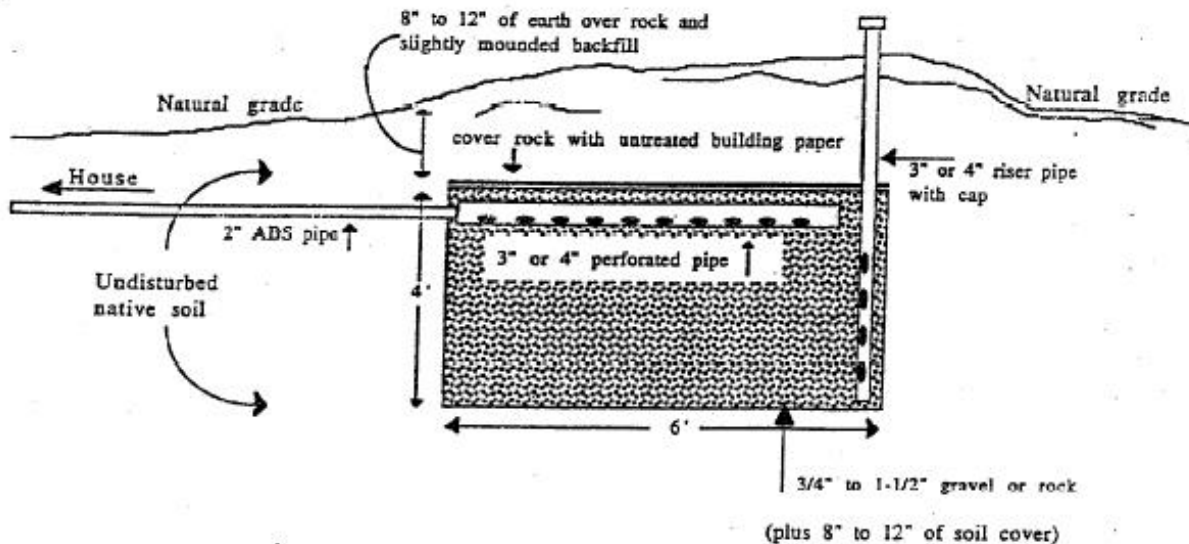
## GREYWATER SUMP

Greywater is defined as any wastewater that comes from a clotheswasher, dishwasher, sink, or shower. Although greywater does not include toilet wastes, it does contain virus and bacteria and must be properly disposed of to prevent health hazards.

A greywater sump is a rock filled trench that collects and disposes of wastewater from the washing machine, shower, and/or bathroom sink. Toilet wastes **MUST** remain in the septic tank. Wastewater from the kitchen sink **MUST** also remain in the septic tank because of the large amounts of organic material it contains. A greywater sump can be used to reduce loading on a septic system that has inadequate leaching capacity.

## SUMP/ABSORPTION BED

Sized for approximately two loads of wash per day (the minimum size allowed)



### TYPICAL SUMP

<b>Maximum bed depth</b>	=	<b>4'</b>
<b>width</b>	=	<b>4'</b>
<b>length</b>	=	<b>6'</b>

**TOTAL CUBIC FEET = 96**

(which is equal to 104 square feet of sidewall area and bottom of trench)

These dimensions can be altered as needed as long as the total trench depth below the ground surface does not exceed 5 feet. Shallow narrow trenches preferred.

There are three steps to properly completing a greywater sump. 1) Determine its location and

size; 2) Apply for and obtain an approved permit from our office; and, 3) Install the sump and obtain a final inspection by our office.

1) **LOCATING AND SIZING THE SUMP**

The size of the sump depends on the amount of wastewater and the ability of the soil to absorb water. County wastewater disposal codes requires that a sump have (for washing machine effluent only) a total volume of at least 96 cubic feet. The sump size for other sources of wastewater must be calculated based on the amount of daily water use of the household. For average draining soils allow one square foot of combined sidewall and trench bottom per gallon of wastewater loading per day. Call our office for assistance in properly sizing the sump if needed.

When determining the proper location for the sump, the following standards and minimum setbacks must be met:

Distance from:

- septic tank 3 feet
- leachfield 10 feet
- property line 5 feet
- foundation 5 feet
- water line (pipe) 10 feet
- well 100 feet
- embankment >67% twice the height of the embankment up to 25 feet.
- stream 50 feet
- drainage way 25 feet

Other standards:

- geologic hazard a sump CANNOT be placed in a location where it may contribute to geologic instability
- groundwater separation vertical distance below the sump to groundwater must be at least 1 foot if the sump is at least 100 feet from a stream, creek, spring, or other body of water. If the sump is less than 100 feet, a 3 foot groundwater separation is required.
- minimum cover 1 foot
- maximum depth from surface 5 feet

2) **SUBMITTING AN APPLICATION**

A plot plan must be submitted with an application form and a nonrefundable fee is charged at this time. The following information must be included on the plot plan (see back page):

- Assessor's Parcel Number & name of the property owner
- Property lines and adjacent streets, footprint of the house, garage, other structures
- Existing septic system, however much is known
- Large trees, fences, etc.
- Wells, streams, drainage ways, springs
- Indicate all setback distances as described above

3) **INSTALLATION & APPROVAL**

Once the district Registered Environmental Health Specialist (REHS) has reviewed and approved the application and the permit is issued, work may begin on the sump. You must notify the REHS 24 hours prior to beginning the work. When the sump is filled and plumbed, but not yet covered, the REHS will visit the site to approve and sign off the installation.

# SAMPLE PLOT PLAN

