

Roll Out the Barrels



Presented by
Arlington Echo
Outdoor Education
Center

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Why Are We Here?

- What is a rain barrel?
- Why build a rain barrel?
 - Point source pollution
 - Water collection
 - Runoff infiltration
- How do we put our barrels to work?

Planning



- How many barrels will we need?
- How is the water used?
- Modifications

How Many Barrels Will I Need?



- 1000 sq. feet of roof yields 600 gallons of water with 1 inch of rainfall
- How many downspouts do we have?
- How many barrels should we have at each downspout?

How Is The Rainwater Used?



- Watering the garden
- Water conservation

Preparation



- Where to get the barrels
 - Commercial
 - Make your own
- Materials needed

Where To Get The Barrels

■ Commercial

- (Price range - \$40 to \$140)

■ Make your own

- (Price range - \$15 - \$20)



Cleaning the Barrels From Pepsi

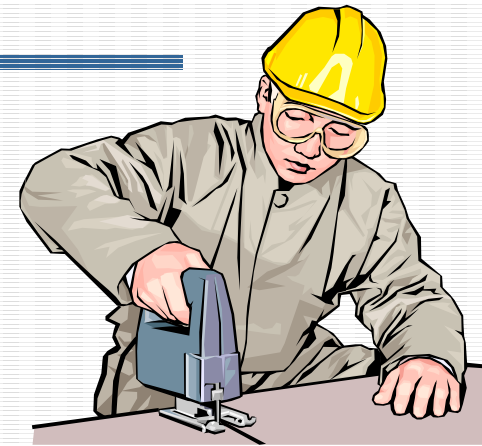


Materials You Will Need

- Barrel
- Basket like those used in garden ponds and pool skimmers
- 5' - 1 1/4" sump pump line
- 1 - 1/2" male threaded barbed fitting
- 1 - 1 1/4" female barbed fitting
- 1 - 1 1/4" male threaded coupling
- 1 - hose coupler fits 5/8" and 3/4" garden hose
- 1 - shut-off valve with male and female ends
- Garden hose (~ 5" per barrel)
- 1 - hose clamp fitting 3/8" to 3/4" hose
- 1 - hose clamp fitting 3/4" to 1 1/8" hose
- Fiberglass window screen material

Construction

- Tools needed
- Marking and cutting holes
- Preparing basket and screen for top hole
- Inserting coupling and fitting into top drain hole
- Inserting fitting into lower drain hole



Tools We Need

- Marker
- Drill
- 3/4" & 1 5/8" hole saw
- 1/2" spade bit
- Straight screwdriver
- Jigsaw
- PVC glue
- Silicone sealant
- Channel lock pliers



Marking and Cutting Holes - Step 1

- Top hole for the basket
 - Use a template to mark the basket hole
 - Pre-drill small hole using 1/2" spade bit (be sure to drill inside your line)
 - Use the jigsaw to cut out your basket hole



Marking and Cutting Holes - Step 2

- Upper drain holes
 - Mark holes according to where you want the overflow to be located in relationship to the lower drain
 - Use a 1 5/8" hole saw to cut out the overflow hole



M arking and C utting H oles - Step 3

■ Lower drain hole

- Mark the location of your lower drain hole based on placement of your rain barrel next to a building
- Use a $\frac{3}{4}$ " hole saw to cut out the lower drain hole
- Thread the hole with a $\frac{3}{4}$ " tap (fitting may be put in without threading first but may be difficult)

Preparing Basket and Screen for Top Hole



- Cut fiberglass window screen material to fit the top of the basket
- Affix the screen to the lip of the basket using PVC glue

Inserting Coupling and Fitting Into Top Drain Hole



- Put the white threaded male coupling inside the barrel with the threads through the hole
- From the outside, screw the gray barbed fitting onto the threaded coupling
- Use silicone on the threads
- Attach 5' foot section of drain hose to upper fitting

Inserting Fitting Into The Lower Drain Hole



- Place silicone around the gray $\frac{3}{4}$ " male barbed fitting to get a water tight seal
- Use a pair of channel lock pliers to twist the gray adapter into the lower $\frac{3}{4}$ " hole

Constructing The Shutoff Valve Assembly

- Step 1
 - Push hose into the green hose coupler and tighten screws
- Step 2
 - Screw yellow shut-off valve onto the hose coupler
- Step 3
 - Place a small ½” hose clamp onto the hose
- Step 4
 - Push hose onto the lower barbed fitting and tighten hose clamp down onto the barbed fitting



Barrel Set-up

- Building a base
- Leveling the barrel
- Adjusting your downspout to flow into the barrel



Modifications To The System

- In-line barrels
- Soaker hose/nozzle
- Diffusing overflow
- Adding a water spicket





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