

# Rain Barrel Workshop

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# What is a rain barrel?

## DEFINITIONS:

- A rainwater harvesting system designed to collect water for landscape & garden purposes.
- A rain barrel is a rainwater collection system that stores rooftop runoff to be used later for activities such as lawn and garden watering, car washing, window cleaning, etc.
- **NEVER USE RAIN WATER FOR DRINKING OR COOKING!**



# Why use a rain barrel?

- Saves you money on your water bill
- Helps reduce excess runoff which is damaging to our waterways
- Helps keep yards, basements and crawl spaces from flooding
- Applicable to all types of sites (residential, commercial, industrial)
- Inexpensive to install and maintain



# Uses for this captured water

- Watering the garden or flower beds with a hose, watering can or drip hose
- Water house plants
- Wetting down compost piles
- Wash mud off of boots and tools
- Wash the car (rainwater is soft, so you use less detergent)
- Emergency water for flushing toilets
- **AGAIN, NEVER USE RAINWATER FOR DRINKING OR COOKING!**



+ “Green Concrete” Compacted Lawn

8,390 sq.ft. “impervious” x 1” rain  
(if infiltrates first ¼” of rain)

**= 3,922 gallons of runoff**

In a 1”  
rainfall

Potential  
Runoff:

**5,480  
gallons**

*1” of rainfall on 1  
sq. ft. surface =  
.623 gal*

1,500 sq.ft. house (& patio) x 1” rain  
**= 935 gallons of runoff**

Having said that:

*If you have a 100 sq ft  
roof connected to your  
barrel, 1” of rainfall  
will more than fill your  
55 gal barrel.*

1,000 sq.ft. driveway x 1” rain  
**= 623 gallons of runoff**

**TOTALS: 2,500 sq.ft. “impervious” x 1” rain  
= 1,558 gallons of runoff**

Storm Drain

Street

# How many rain barrels?

- Depends on your water usage, roof area, downspouts
- Consider Princess Lolly's 1000 sq. ft. home
  - 2 roof faces & 2 downspouts
  - She wants to collect the first half inch of rain from each storm
  - Garden on west side of house; she wants barrels near garden
  - Her local SWCD sells 55 gallon rain barrels
  - How many barrels does she need?

1" of rain on 1 ft<sup>2</sup> surface = 0.623 gallons of water

$$500 \text{ ft}^2 * 0.5 \text{ in.} * \frac{0.623 \text{ gal}}{1 \text{ in. rain} * \text{ft}^2} * \frac{1 \text{ barrel}}{55 \text{ gal}} = 2.8 \text{ barrels}$$

**3 barrels**



# A few things to remember....

- Overflow (down spouting) should be directed away from your home's foundation.
- ***Rain barrels are a low cost way to reduce runoff, reduce household water usage, and save you money!***
- A rain barrel can save most homeowners about 1,300 gal during the summer months, depending on rainfall and storage capacity.
- Rain barrels help conserve good, clean water for drinking & helps offset ground water demands.



# Maintenance & Installation

- Place barrel on a flat, level, elevated surface
  - Cinder Blocks or build your own stand
  - The higher you place your barrel, the more pressure!
    - Make sure your barrel is stable & will not fall over
      - *1 gal = 8.35 lbs. (total weight around 460 lbs.)*





# Maintenance & Installation

- Clean gutters on a regular basis or install a screen in the gutter
- Use rainwater within a week or two to discourage algae growth
  - 2 oz. bleach when empty, next rainfall will dilute the solution
- Keep barrel sealed to prevent mosquitoes
  - 1 tablespoon olive oil every couple rain events
  - Mosquito tabs

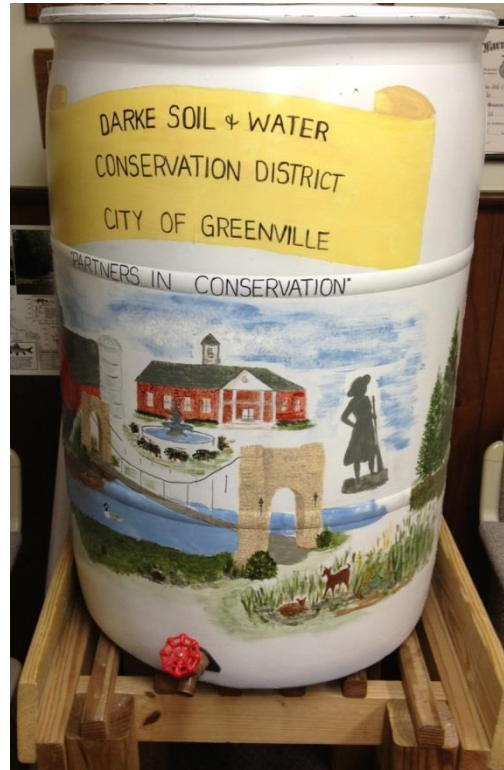


# Decorating Tips

- Remove labels
- Clean and dry
- Lightly sand barrel (220 grit)
- Wipe down with vinegar or ammonia/water solution
- Primer (let primer dry well)
  - Primer immediately after sanding or the surface will re-wax itself
- Sketch out your design
- Paint
- Finish with a clear coat (protection for your design!)



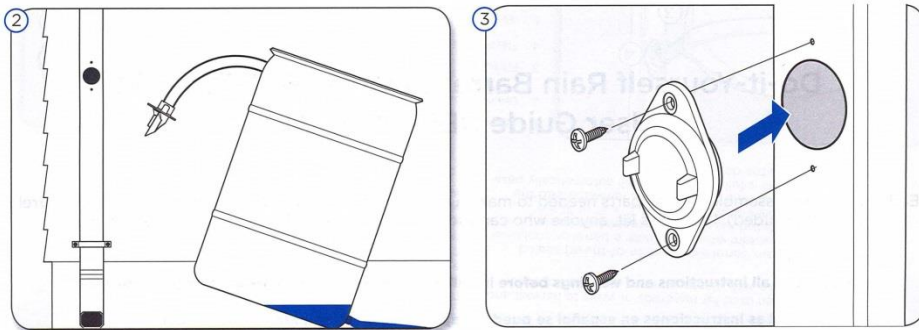
# Use your creativity!



# Winter Care

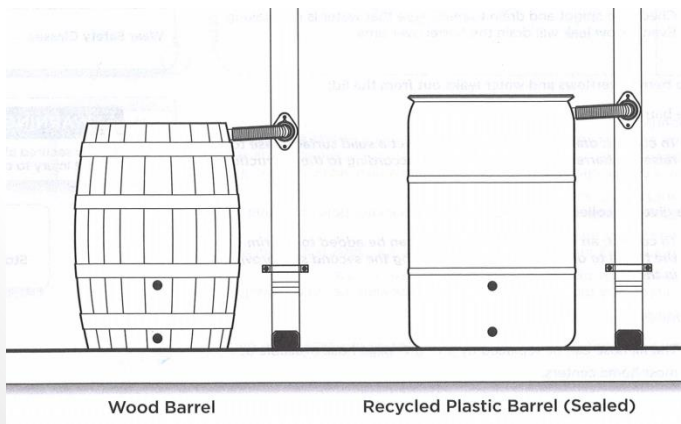
## 3 Easy Steps:

1. Empty rain barrel & store on side with spigot up in the air
2. Rinse barrel prior to storing to clean out any debris
3. Use cap for spouting (part of rain barrel kit)



# Barrel selection

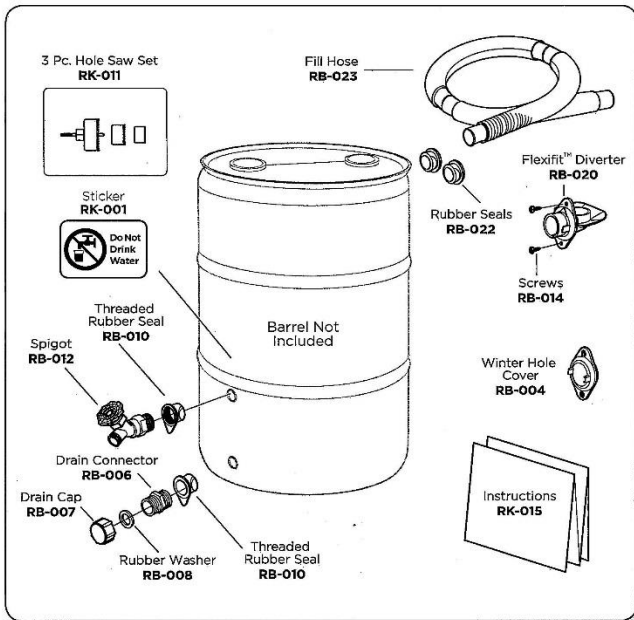
- Barrel must be sturdy & watertight
  - Heavy duty or commercial grade plastic
  - Clean and watertight wood barrel
- Barrel must have lid
  - No one likes mosquitos
  - Lid keeps contaminants out
- If re-using a barrel, use only FDA approved food grade








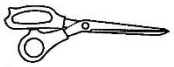
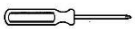
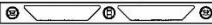
# Building your barrel

- Open up your kits to make sure all of your parts are in the bag!

## 2 Parts list



## Tools needed

1. Safety Glasses 
2. Safety Gloves 
3. Drill 
4. Measuring Tape or Ruler 
5. Pencil 
6. Scissors 
7. Phillips Screwdriver 
8. Level 

## Tools needed:

- Drill
- Tape Measure
- Pencil/Pen/Sharpie



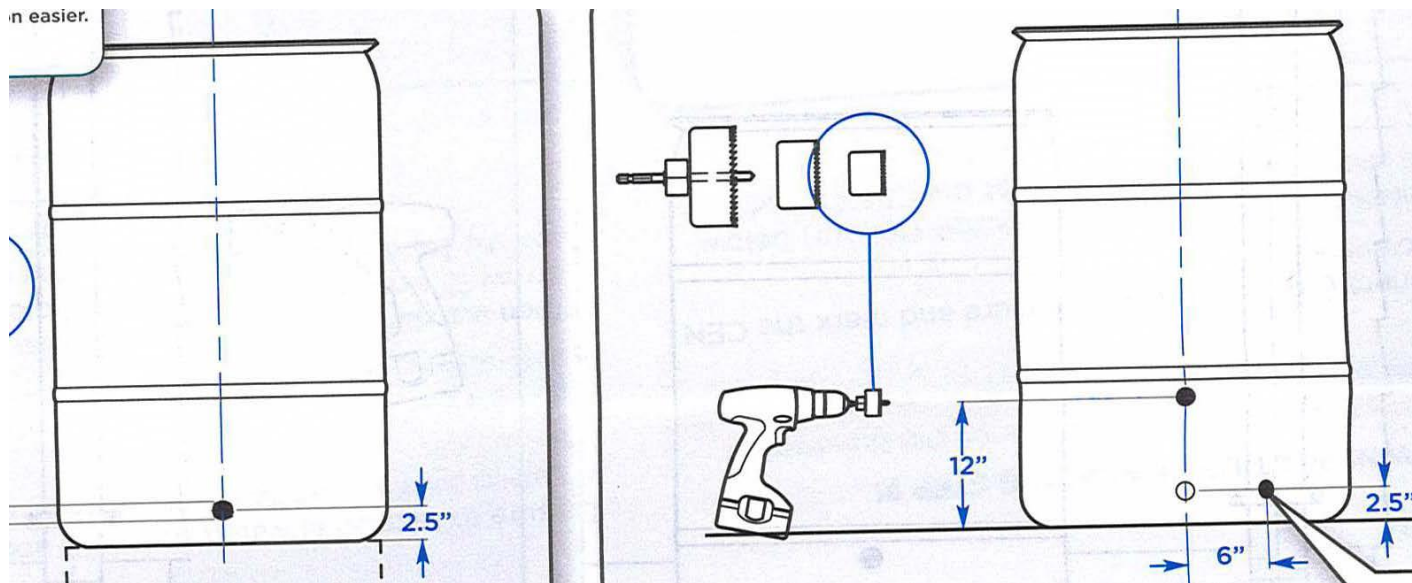
# Building your barrel

First decision to make:

- Are you going to elevate your barrel or will it sit on the ground?
  - This decision will help determine where to place the spigot and the drain (if necessary)
- Once you determine this, mark and drill your barrel
- Use the 1-1/4" hole saw bit (smallest one)



# Building your barrel



**USE CAUTION:** Once the hole saw gets to the barrel, your drill may jerk

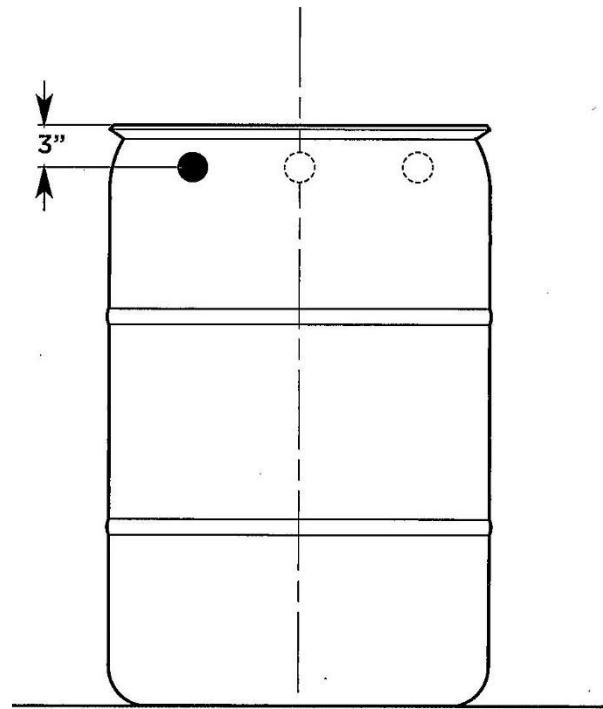
**BE CAREFUL, HOLE SAW BIT WILL BE HOT!**





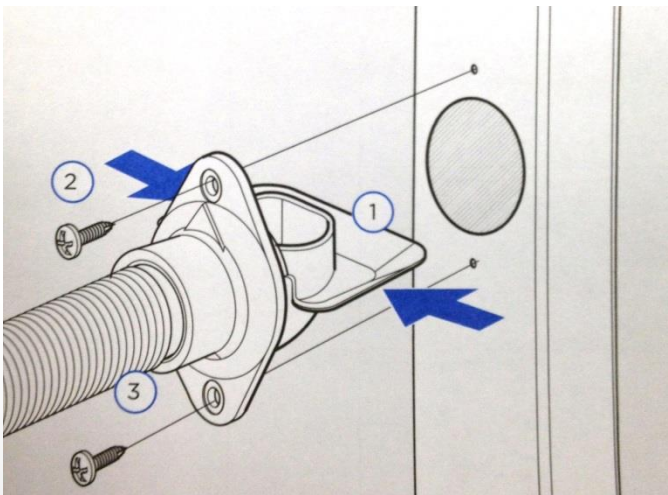
# Building your barrel

- Installing the water inlet fitting
  - Use the 1-1/2" hole saw bit (middle size)
- Mark and drill
  - At least 3" down, plastic ring is thick at the top



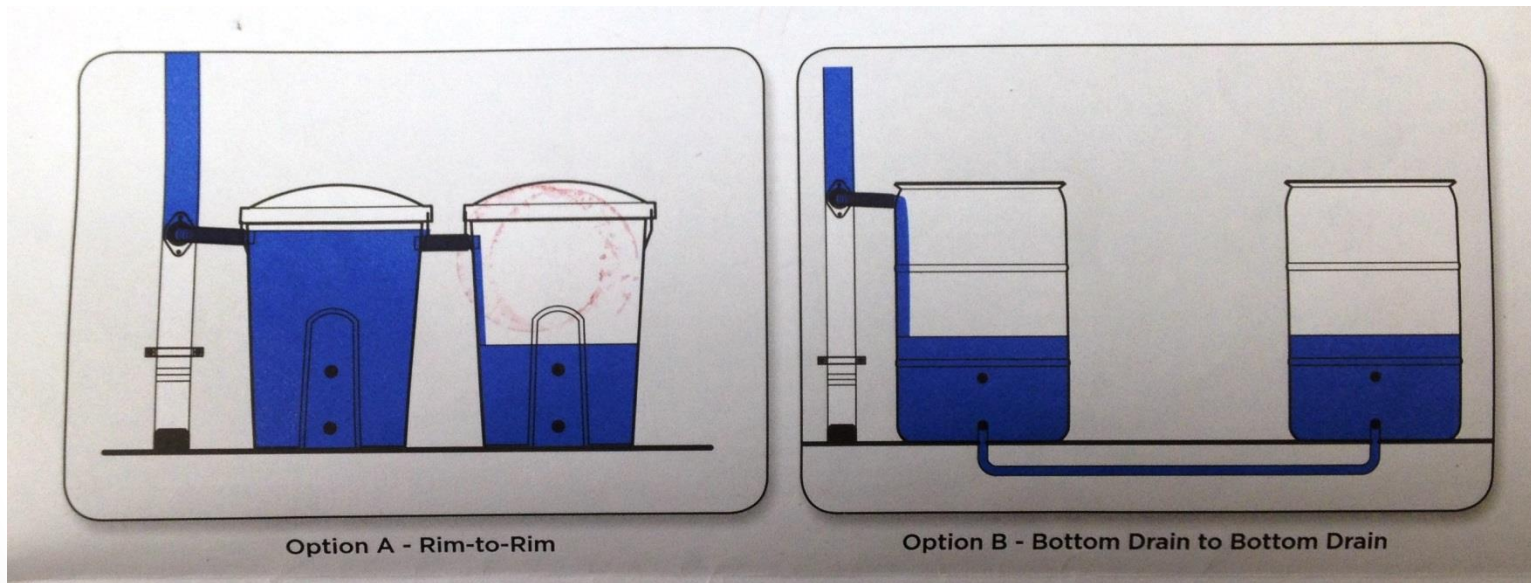
# Building your barrel

- **These next steps you will need to do at home**
  - Determine where you are placing your barrel and how high it will be
  - Mark on your downspout and drill with the 2-1/8" hole saw bit (largest one)
  - Install the flexfit diverter



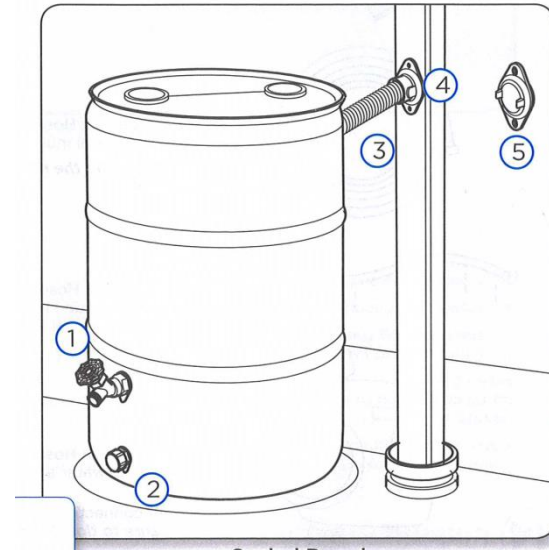
# Expanding your capacity

- Increase your capacity by using an adapter and more barrels (we sell an adapter kit for \$15)



# Where to get a rain barrel

- The Darke Soil & Water Conservation District (SWCD)
- Our prices:
  - Barrel & parts kit: \$40
  - Barrel Only: \$20
  - DIY Kit Only: \$30
  - Adapter & Hose Connector with Barrel: \$25
- Or attend a SWCD workshop
  - Build & take home your own rain barrel
  - Cost: \$40



# THANK YOU!

Please feel free to call or email with any questions, thank you for your time this evening and interest

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