

# Rain Barrels 101: The How's and Why's



# Why should you install a rain barrel at your home?

- Positives
- Negatives

# Positives



- reduce runoff
- allow water to soak into the ground
- rain water has no chemicals added (chlorine, fluoride)
- save money
- reduce pollution
- simple to install/maintain

# Save money?

Water cost \$ 4.84 /thousand gallons

Water disposal (sewer rent) \$ 5.41/thousand gallons

\$10.25 /thousand gallons

Every thousand gallons you capture and reuse you save \$10.25.

# Negatives

- barrels cannot hold an entire rain storm (heavy rain fall, long duration, or too much roof area)
- barrels can freeze and break
- open top barrels can allow mosquito breeding
- aesthetics
- the entire barrel is not used (wasted space at bottom - approx. 5 gallons)
- must cut or remove a portion of your downspout

# How much water can be captured?



- 80 % of the rain storms in Radnor are less than 2 inches in total depth
- A modestly sized home is approx.  $50' \times 35' = 1,750 \text{ s f}$

# How many barrels are needed?

- If each barrel holds 50 gallons,
- & the footprint of the house is 1,750 sq ft,
- & we receive 1" of rain
- Then...
  - $1" \times (1/12) \times 1,750 = 145 \text{ cu ft}$
  - $145 \text{ cu ft} \times 7.48 \text{ gal/ cu ft} = 1,084 \text{ gal}$
  - $1,084 / 50 = 20+ \text{ barrels!}$

# To many?

There are other alternatives

- Install a rain garden
- Install storm water management
- direct your downspout onto your lawn  
(if it goes underground)\*

\* make sure you do not have a storm water management system in place now



# How to construct / install a rain barrel in three easy steps



- Cut off your downspout approx. 6 inches above the top of the barrel
- Connect a flexible elbow to the end of the downspout
- Direct the elbow into the top of the barrel

However, you'll have to empty the barrel every time it is about to rain

- If you want the barrel to empty "by itself", attach a soaker hose to the bottom hose bib.
- This allows the barrel to water your garden during and after the rain storm



# Key Benefits of a Rain Barrel

- Easy to set up
- Easy to operate
- Capture and reuse a natural resource
- Non-point source pollution solution