

Building and Installing a Rain Barrel for Your Home

Mike Haberland
Environmental & Resource Management Agent
Rutgers Cooperative Extension of
Burlington and Camden Counties
haberland@njaes.rutgers.edu

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New Jersey Agricultural
Experiment Station

Rain Barrel Benefits

- Your plants will love it
- Conserve water
- Reduce runoff
- Convenience
- Protect your valuable landscape
- Save Money



Rain Barrels Conserve Water

How many gallons of rain water comes
from a single rooftop?



Photo by: SharkeyinColo

1_{in} rainfall event = 500 gallons

1 – 50 gal rain barrel saves 10%

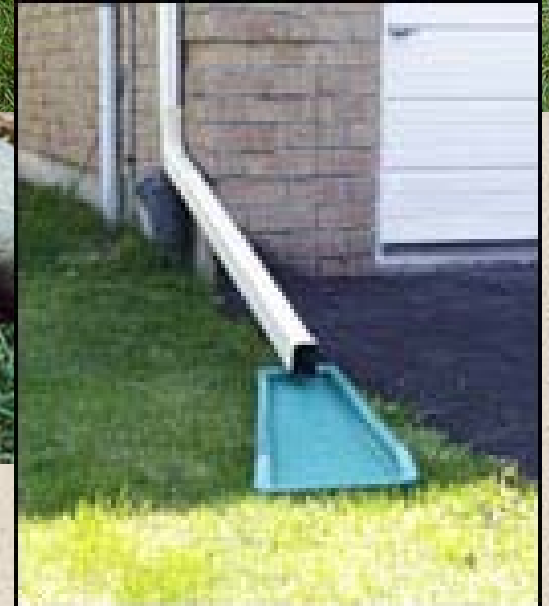
42_{in} rainfall per year = 20,950 gallons

Based on a Roof area of 800 ft² (40' x 20')

Reduce Rain Water Runoff



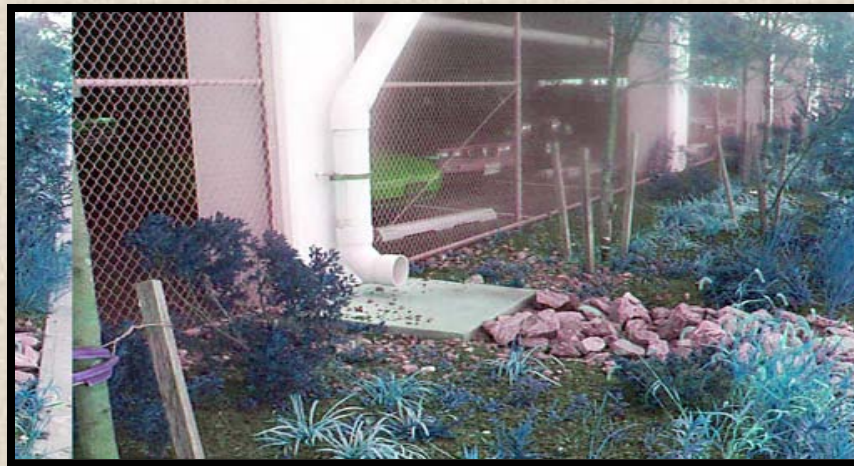
Downspout Disconnection



What are some other ways you can do your part?



Plant Trees



Redirect Your Gutter



Install Porous Pavers



Install Rain Gardens

Other ways to save water

Outdoor

- Native plants
- Mulch around plants
- Low flow garden hoses



Indoor

- Look for EPA WaterSense logo
- WaterSense toilets (20% less water)
- Energy efficient dishwashers and washing machines (50% less water)
- WaterSense showerheads (40% less water)
- Faucet aerators

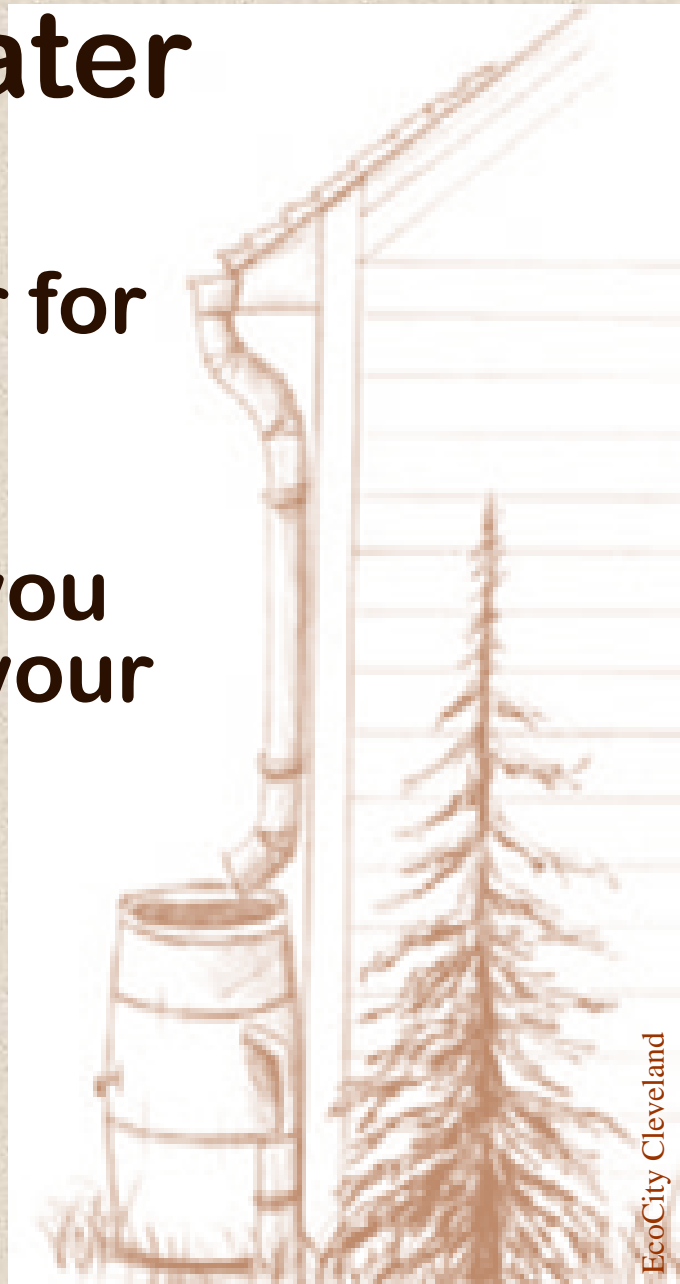


Use of the Water

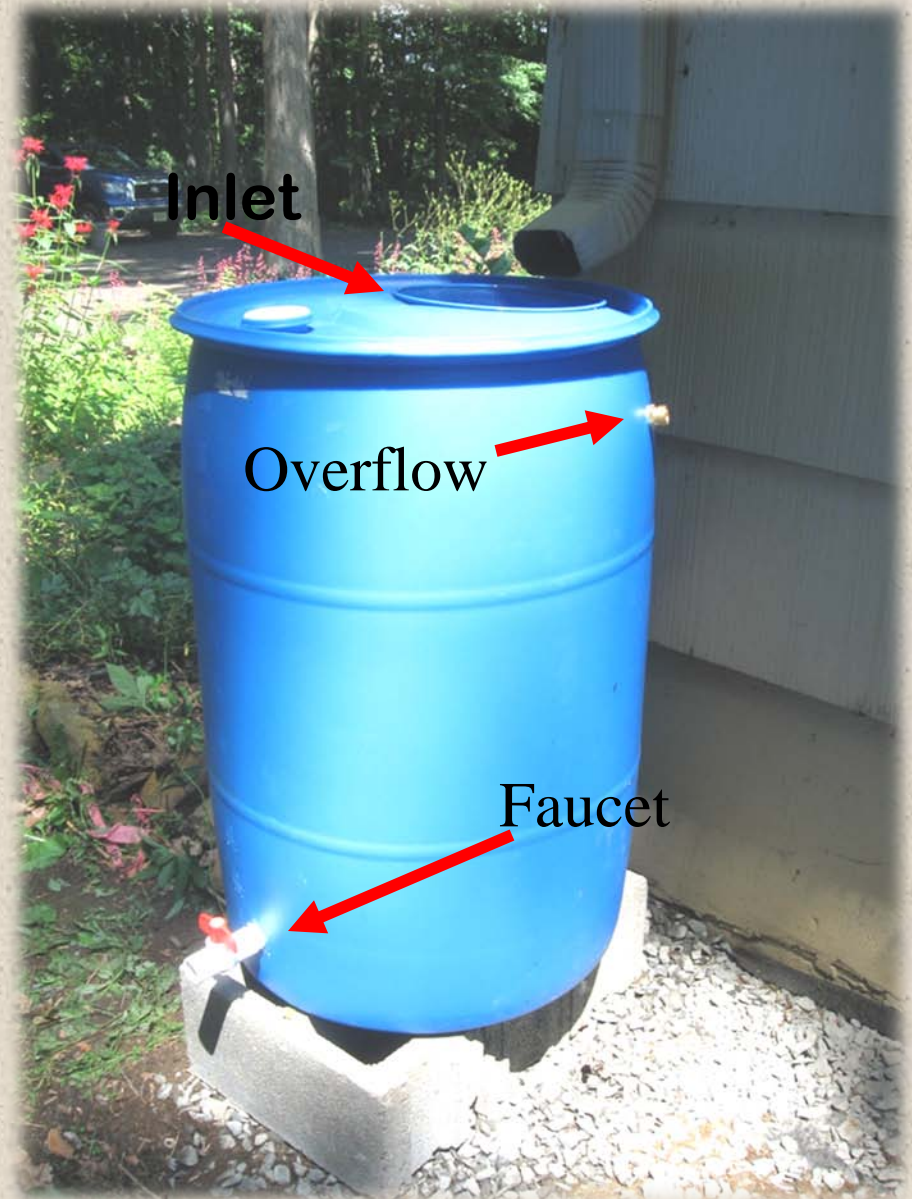
- Do not use rain barrel water for cooking or drinking
- Do not collect rain water if you have used a moss-killer on your roof



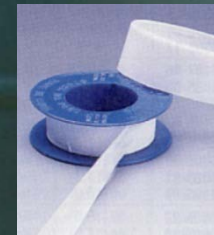
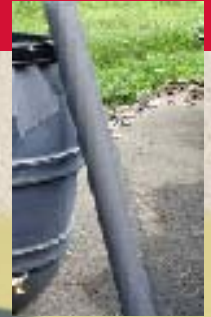
Photo by: BugSpray.com



Let's Build a Rain Barrel!



Supplies



- ✓ 55 gallon plastic drum
- ✓ For top of barrel:
 - ✓ Dome food cover (optional)
 - ✓ Gray fiberglass screen
- ✓ For overflow at top of barrel:
 - ✓ Hose adapter (male, 1 ¼ in.)
 - ✓ Sealing locknut, 1¼ in.
 - ✓ Thread seal tape
 - ✓ Silicone caulk

For faucet at bottom of barrel:

- ✓ Brass faucet (male, ¾ in.)
- ✓ Sealing locknut, ¾ in.
- ✓ Thread seal tape
- ✓ Silicone caulk

Tools

✓ For top of barrel:

- ✓ Jigsaw (aka sabresaw) to cut opening on top of barrel
- ✓ Scissors to cut screen



✓ For faucet at bottom of barrel:

- ✓ Drill with hole saw (1" diameter) for drilling faucet hole
- ✓ Pliers for tightening adapters
- ✓ Gloves for spreading caulk
- ✓ Paper towels for excess caulk



✓ For overflow at top of barrel:

- ✓ Drill with hole saw (1 5/8" diameter) for drilling overflow hole
- ✓ Pliers for tightening adapters
- ✓ Gloves for spreading caulk
- ✓ Paper towels for excess caulk



Safety first !

Wear safety glasses and gloves when cutting or drilling your barrels.



Use jigsaw to cut opening



Drill hole for faucet



Think before you drill – measure twice, cut once!

Put thread seal tape on faucet



Clockwise around threads

Caulk around threads on top of tape



Screw faucet in



Keep the faucet straight as you screw it in

**Put caulk around threads, then screw
lock nut on inside of barrel**



Lock nut being put in place (using fingers and pliers)



Flashlight and paper towel are useful.

Faucet is done!



Where do you want to put the overflow?



Drill hole for overflow



Put thread seal tape on overflow fitting (wrap clockwise)



Caulk around threads of overflow fitting



Screw overflow in



Caulk around threads on inside of overflow fitting and screw lock washer on



Cut gray window screen to desired length



**When you
get your
rain barrel
home...**



1. Prepare the Area Under Your Downspout for the Rain Barrel



- ✓ Level the dirt under your downspout
- ✓ Add some sand, gravel or crushed stone

Prepare the Area Under Your Downspout for the Rain Barrel



*Full barrel
is heavy –
416 lbs!*



- ✓ Rain barrel needs to be higher than ground level
- ✓ Build a platform using bricks, cinder blocks, or pressure treated wood

2. Put the Rain Barrel in Place



3. Cut Off Part of Downspout



✓ Measure twice, cut once!

Cut with hacksaw. Protect siding with cardboard.



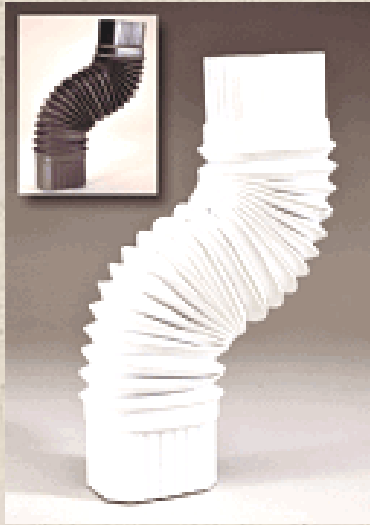
4. Re-attach the Curved Downspout End Piece



4. Attach the Curved Downspout Elbow and Extension (if needed)



Flexible downspout option



<http://www.clermontswed.org/Rain+Barrel+Care+and+Installation.pdf>



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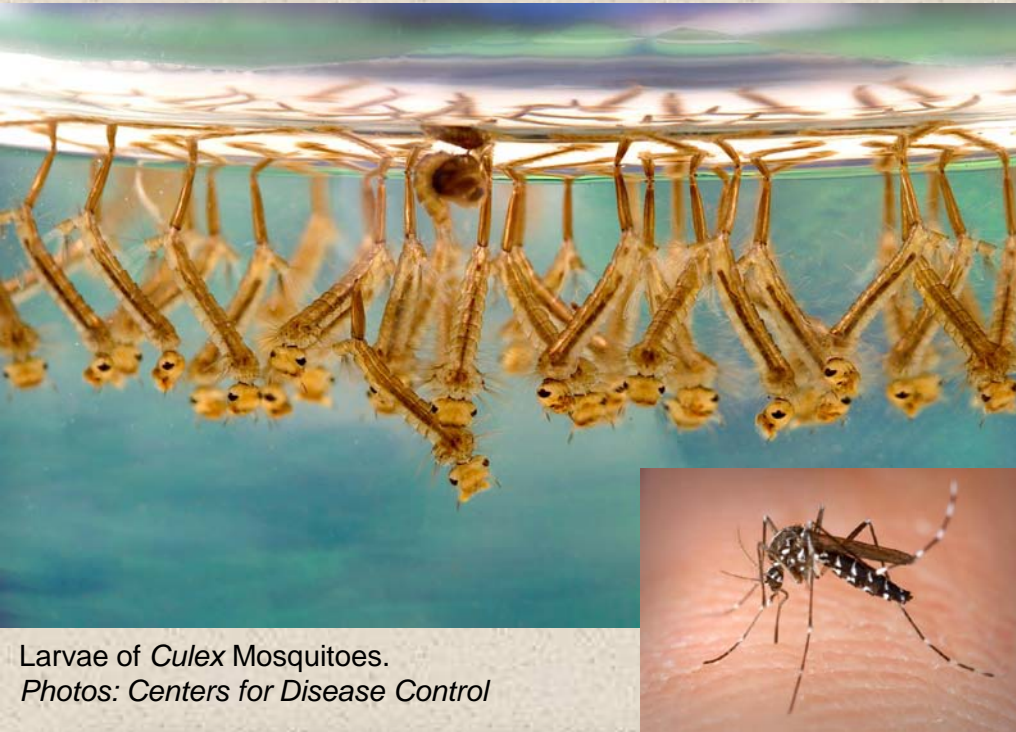
5. Re-attach the Downspout Strap



6. Attach Hose to Overflow



7. Add Mosquito Dunk or Mineral Oil



Larvae of *Culex* Mosquitoes.
Photos: Centers for Disease Control



- Keep barrel screened in, and hose on overflow --- but adults are wily critters
- Drain barrel well between rains (1–3 weeks for most species)
- Bti --- *Bacillus thuringiensis israelensis*
 - bacteria that infects larvae.
 - “Mosquito Dunks”:
 - safe for humans and pets.
 - dose based on surface area of water
 - some concern about breeding resistance
- Mineral oil, alcohol-based surface films, pesticides --- may be regulated

Care of Your Barrel

- **Keep screen on top to prevent mosquitoes – change screen every 2 years**
- **Remove debris from screen after storms**
- **Clean out with long brush and water**
- **Diluted 3% bleach solution**
- **Winterize rain barrel**

Winterizing Your Rain Barrel

- **Disconnect downspout from rain barrel;**
- **Drain rain barrel & leave faucet open;**
- **Store barrel inside, turn upside down, or cover top;**
- **If left outside, tie down to prevent blowing over.**



www.nerainbarrel.com/FAQ.html

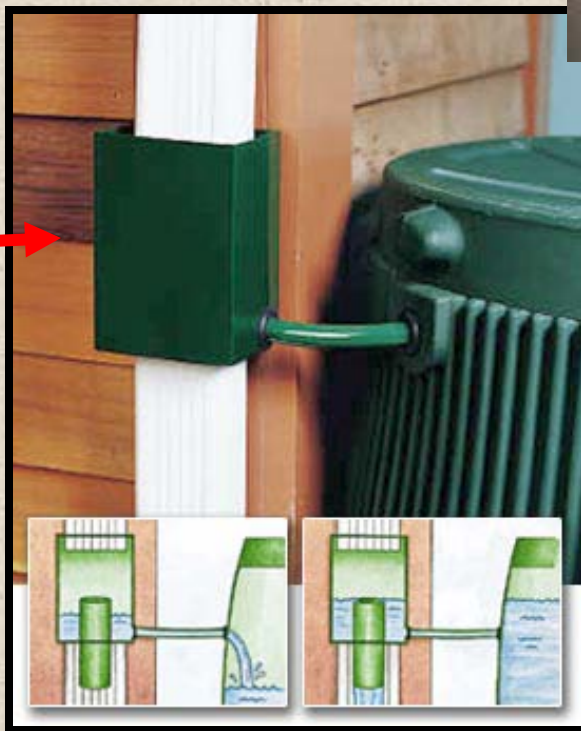


<http://www.clermontswcd.org/Rain+Barrel+Care+and+Installation.pdf>



Some Tips

- Use a diverter
- Automatic or manual



Example of automatic diverter

Example of manual switch diverter



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Be creative!





Painting your rain barrel

- 1) Clean outside with 50/50 vinegar & water mix
- 2) Go over outside with mild abrasive pad
- 3) Base of primer for plastic
- 4) Paint: exterior enamel, acrylic or paint for plastic
- 5) Protect paint with clear coat spray.



Abrasive



Primer for plastic

Note: Some primer brands spray on clear and some spray on white.





Credits

- Arlington County Department of Environmental Services
- Clean Virginia Waterways
- *Stormwater Management in Your Backyard* program
- New Jersey Water Conservation Program
- New Jersey Sea Grant
- USDA CSREES Regional Water Program

