

## Rain Barrels

Winneshiek County Conservation Board

(563) 534-7145

www.winneshiekwild.com

1 square foot of roof + 1 inch of rain = .62 gallons of water

### Setting Up Your Barrel

- Determine the best location for your barrel by considering where you will need to use the water and how you plan to transport it. During heavy rains, the barrel may overflow through the top as well; keep this in mind when deciding where to place your barrel.
- Elevate your barrel by at least 18 inches to increase water pressure, help with drainage, and allow for easier filling of water cans. Use cinder blocks, wooden frames, or other sturdy support. A full barrel will weigh over 450 pounds, so you need strong bases.
- Make sure the support surface is level (so water drains correctly) and bigger than the barrel (so the weight of the barrel is evenly distributed).
- Use downspout fittings or gutter extensions/diverters to bring your downspout away from your house so it drains directly into the barrel.
- Position the overflow hose to direct excess water away from your foundation, preferably into a vegetated area. Do not allow the overflow water to run across parking areas, driveways, or bare soil.
- No downspouts? Rainchains off of rooflines also work.



### Decorating or Landscaping Your Barrel

- You can blend your barrel into the landscaping of your house by building an enclosure around your barrel to hide it, (making sure that you can still remove the barrel as needed), or with trellises and plants.
- You may want to paint the outside of your barrel to protect it from UV damage and help it last longer. To paint your barrel:
  - Wipe it down with a 1:1 vinegar/water mix and allow to air dry.
  - Rough the barrel surface with fine-grit sandpaper, then rinse with water to remove dust and allow to air dry.
  - Apply a coat of latex bonding primer, then paint with exterior latex paint or a paint designed to adhere to plastic surfaces, like Krylon Fusion™ spray paint. Regular acrylic paint can be used over the Fusion base for more elaborate designs.
  - Apply a coat or two of polyurethane for more durability.



## Using the Water

- The most common use of harvested rainwater is for watering lawns, gardens, and houseplants.
- Other uses: washing cars, outdoor furniture, boots, garden tools...
- You can drain the water into a watering can or buckets, or set up a soaker hose system that feeds directly into your garden.
- Depending on your roof surface, your neighborhood, and your personal preference, you may or may not want to use rain barrel water for overhead watering in a vegetable garden or to wash fruits and vegetables prior to consumption. Using the water for drip irrigation in a vegetable garden is generally considered safe. We recommend researching this further on your own to determine your comfort level.
- We do not recommend using rain barrel water for drinking, cooking, or bathing.

## General Maintenance

- Most problems with rain barrels can be avoided if water is not allowed to stand in the barrel for more than 5-7 days.
- Clean the debris out of your filter regularly, particularly if your barrel is under trees or other areas where leaf litter or other debris will accumulate quickly.
- If completely draining your barrel regularly for use, you shouldn't have problems with mosquito larvae. Control options if you do end up having lots of mosquito larvae include:
  - Add a layer of fine mesh screen (like window screen) to the debris filter.
  - Add ¼ cup of vegetable oil or 1 tablespoon of liquid dish soap to the barrel after rain events or once a week.
  - Mosquito Dunks: tablets impregnated with Bt-i bacteria that kills mosquito larvae.
  - Some people add a few goldfish to the barrel, but that may require a little extra care for this fish themselves. Goldfish might also help with reducing algae growth in a barrel.
- Clean your barrel once a year, more if water tends to sit in it for long periods. One cleaning solution that is safe for lawns and gardens is 2 teaspoons of castile soap and 2 teaspoons of vinegar or lemon juice for every gallon of water used to clean the barrel.

## Winter Maintenance

- To prevent ice damage, drain and bring your barrel into a garage for winter. If you can't bring it under shelter, disconnect it from the downspout and turn it upside down.
- Be sure to return your downspout to its original configuration during winter so that water is directed away from your foundation again.



## Rain Barrel Workshop

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### Barrel Construction Materials

All materials except for the plastic drum were available at Ace Hardware and Norby's in Decorah or Fisk's Farm and Home in Cresco. Estimated cost: \$15-20.

- 55-gallon plastic drum
- ½ inch brass spigot/boiler drain
- 8 inch round pond planter/basket
- hose clamp
- 6-8 feet of 1¼ inch sump pump hose
- 1¼ inch conduit locknut
- 1¼ male NPTxHose Barb, 90° elbow



Pond  
Basket



Boiler  
Drain



Hose  
Barb  
Elbow

### Tools Needed

- Drill
- Jigsaw
- ¾ inch spade bit
- 1¾ inch hole saw

### Installation Materials

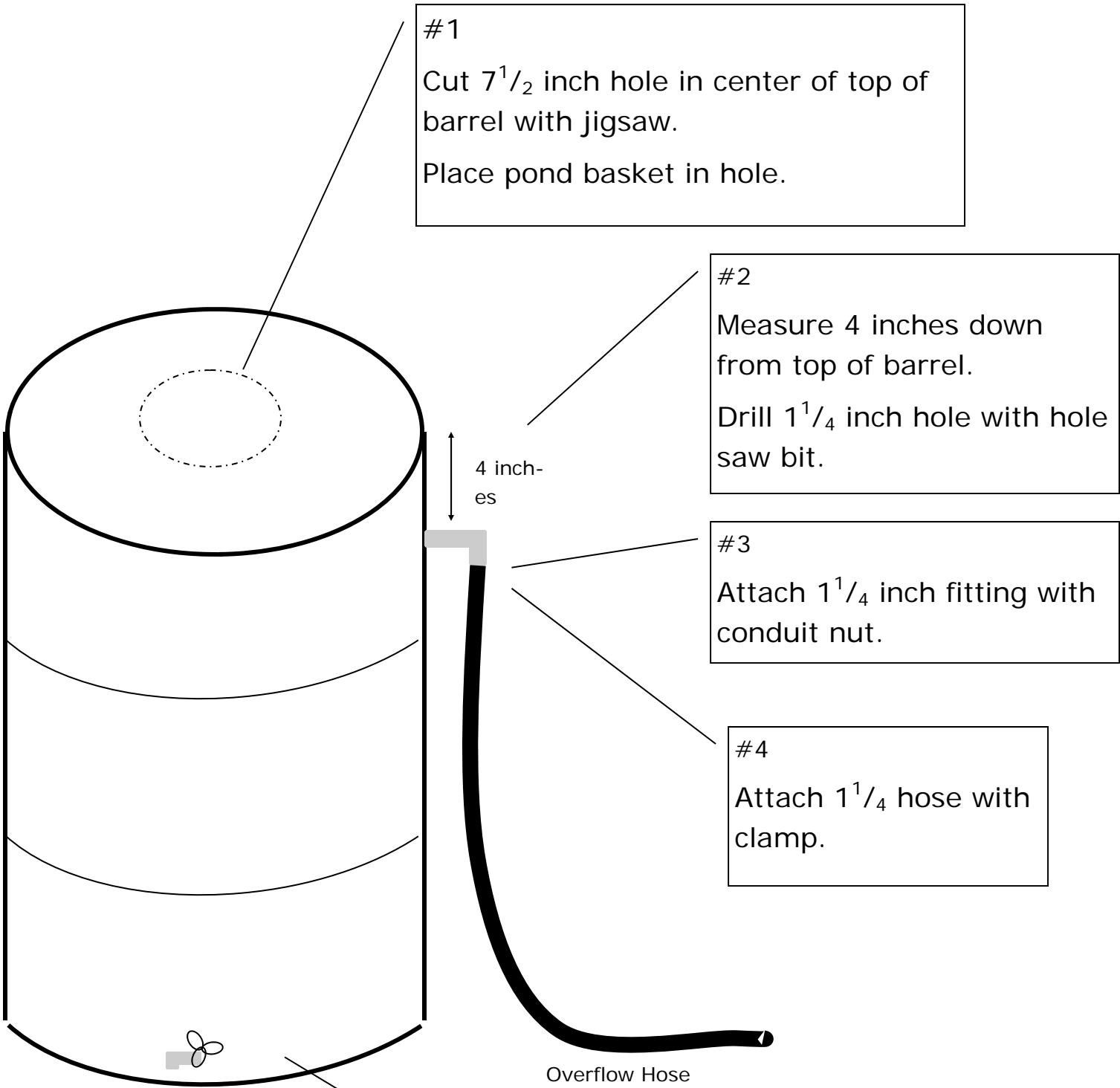
- Downspout elbows appropriate to your downspout or a downspout diverter
- Cinderblocks, wooden frames, or other support materials for elevating your barrel

### Construction Instructions (see construction diagram for further details)

1. Water Inlet: Cut a 7½" hole in the top center of the barrel with a jigsaw. Be sure not to cut it too big or the basket may fall through. Add the pond basket.
2. Overflow Hose:
  - a. Measure 4" from the top of the barrel. Drill a 1¼" hole using the hole saw bit.
  - b. Attach the 1¼" elbow fitting to the barrel with the conduit nut.
  - c. Attach the sump pump hose to the elbow fitting using the hose clamp.
3. Spigot
  - a. Rotate the barrel 90° from the overflow hose and measure 3 inches up from the bottom of the barrel.
  - b. Drill a ¾" hole with the spade bit.
  - c. Screw in the spigot.

Feel free to call our office with any questions or concerns.





#1  
Cut 7<sup>1</sup>/<sub>2</sub> inch hole in center of top of barrel with jigsaw.  
Place pond basket in hole.

#2  
Measure 4 inches down from top of barrel.  
Drill 1<sup>1</sup>/<sub>4</sub> inch hole with hole saw bit.

#3  
Attach 1<sup>1</sup>/<sub>4</sub> inch fitting with conduit nut.

#4  
Attach 1<sup>1</sup>/<sub>4</sub> hose with clamp.

Overflow Hose

#5  
Turn barrel 90 degrees from overflow hose.  
Measure 3 inches up from bottom of barrel.  
Drill hole with <sup>3</sup>/<sub>4</sub> inch spade bit.  
Screw in spigot.