

Supplement A: The Parts of Rain Barrel

1. Flexible Down Spout Adapter:

Directs water from the downspout to the rain barrel

2. Netted Basket: prevents mosquitos from entering the barrel

3. Rain Barrel: collects rain water, including the “first flush,” critical rain loaded with pollutants

4. Outflow Hose with control valve: for slow drainage and ease of connecting a hose

5. Overflow Hose: directs water away from building or reconnect with drainage system

6. Brass Spigot (optional): attached at watering can height to release water into a bucket or other container.



Supplement B: Background and Maintenance Information on Rain Barrels

A **rain barrel** is a system that collects and stores rainwater from a roof at a home or school that would otherwise be lost to runoff and diverted into storm drains and streams. Rain barrels are usually 55 gallon drums, but can come in a variety of sizes.

- Rain barrels CAN reduce the amount of runoff and pollutants reaching local streams. Rainwater from downspouts drains onto driveways, sidewalks or other paved surfaces and is not able to soak into the ground. Eventually, the runoff flows into storm drains, which empty into local streams. **A surge of polluted water entering streams can cause flash flooding, and erosion and low water quality.** Rain barrels prevent this by collecting and storing rainwater
- Using a rain barrel can provide a free water source for gardens and lawns, reducing the use of city and/or well water. Rainwater is naturally soft, oxygenated and devoid of chlorine, providing a great way to help improve the health of gardens, lawns and trees.
- Water captured in a rain barrel can be used to wash your car.
- According to the Maryland Department of Natural Resources, rain barrels can save a homeowner 1,300 gallons of water during peak summer months.
- Rain barrels are NOT for storing drinking water or for water used inside your home.

Rain Barrel Maintenance

Rain barrels require periodic maintenance.

- They should be drained after each significant rainfall from April to November. As a general rule, rain barrels should be emptied every five to seven days.
- Clean the rain barrel periodically and inspect it for clogs and leaks. If you suspect mosquitoes may be a problem, a fine mesh screen fitted on the lid of the rain barrel will prevent mosquitoes from gaining access and laying eggs.
- Remove leaves and other debris from the filter screen and ensure that it is not damaged and is securely fastened.

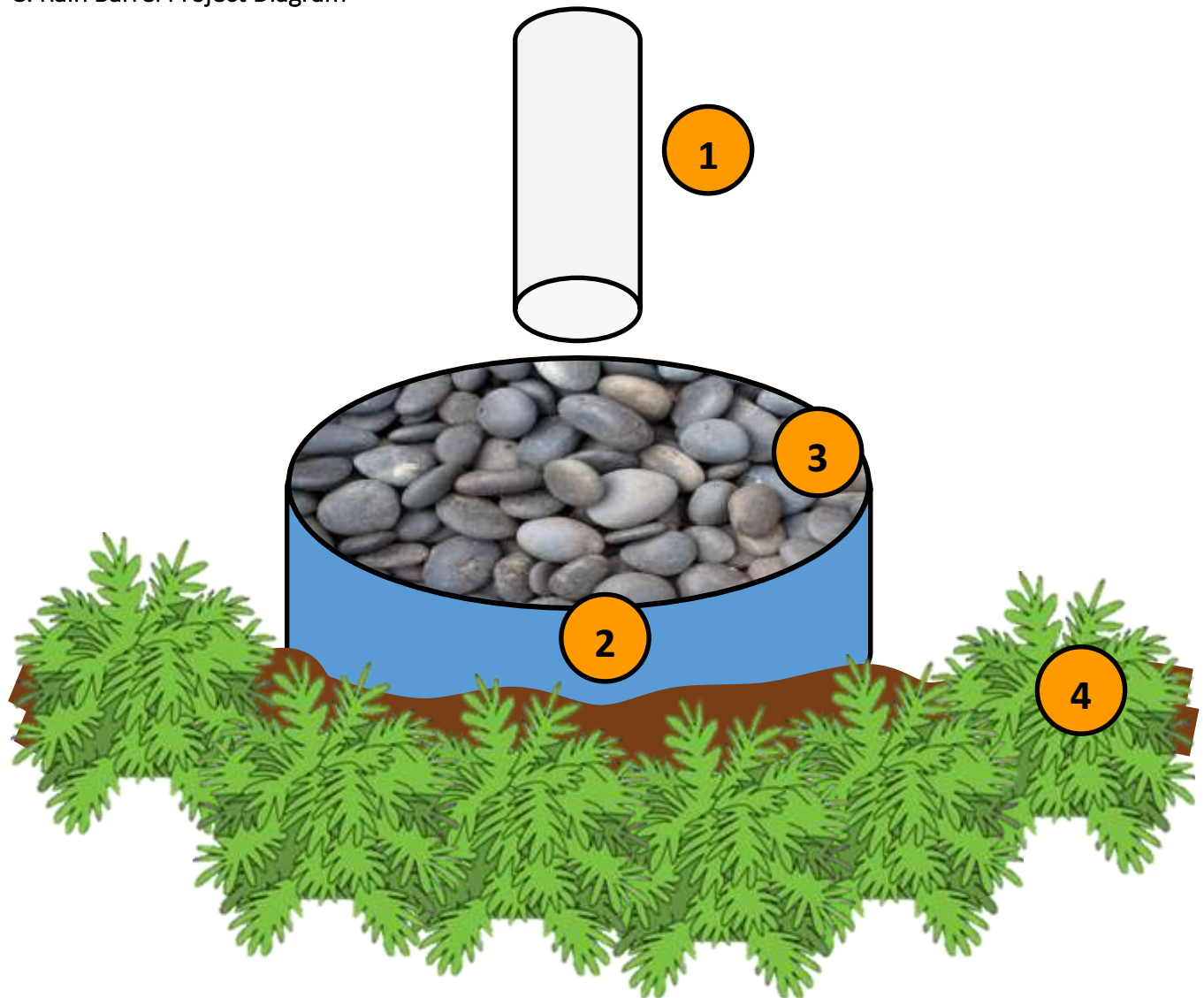
Monthly: move flexible adapter away and remove and clean netted basket. Ensure that the overflow hose is intact and is directed away from building foundation. Ensure all connections are tight.

(Source: <http://www.sandiego.gov/water/conservation/rainwater.shtml>) 3, Philadelphia, PA)

(Source: Department of the Environment Guidelines for Rain Barrels)

(Source: EPA Environmental Assessment & Innovation Division, EPA Region

C: Rain Barrel Project Diagram



1. Outfall of an underground drain pipe: carries water from rain barrels.
2. Half of a rain barrel partially buried, but rising above ground level.
3. Medium size gravel filled in the half rain barrel.
4. Native, absorbent plants.

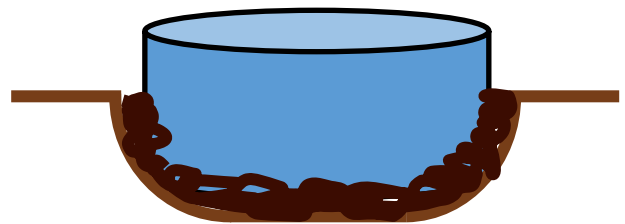
Supplement D : Rain Barrel Outflow Project Instructions

Tools List:

- Hollow rain barrel half
- Hand trowels
- Large shovel
- Gravel
- Gloves
- Native plants (optional)

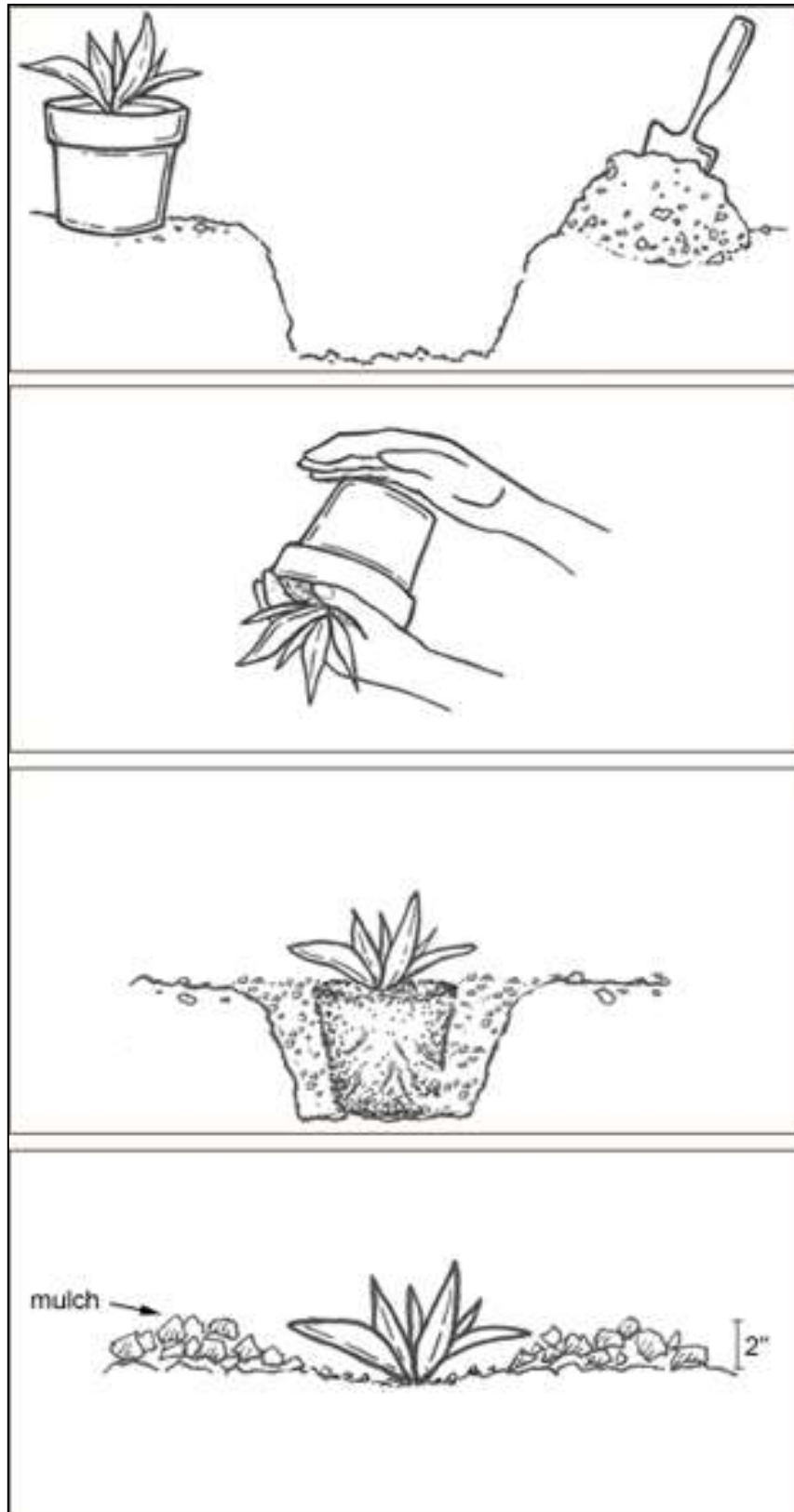
Instructions:

1. Identify the location of the outfall project or the rain barrel drainage pipe. (There should be a large circle spray painted on the ground near it.)
2. Place the rain-barrel half on the circle to ensure the size matches up.
3. Using the hand trowels, have students dig up the dirt inside the circle so that there is a hole about 4 inches deep
4. Place the rain barrel half inside the circle so that half is below surface level and half is above.
 - If the rain barrel sits too deep, remove and add dirt back into the hole.
 - If the rain barrel is not deep enough, remove and dig out more dirt.
5. Once the hole is the right size, replace some of the dirt around the edge of the rain barrel and a 1 inch layer inside the rain barrel.
6. Using the hand trowels, have students scoop gravel into buckets (about 1/4 of the way full) and carry them over to the outfall site. Carefully pour the gravel into the rain barrel until it is almost full (about an inch of space at the top)
7. If indicated by Arlington Echo Staff, plant native plants on the lower side of the rain barrel using **Supplement E**.



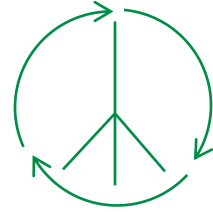
Supplement E: Take Action—How to Plant

Massage roots before placing plant in ground.



Supplement F :

Who Can? Cheer



Instruct students that when you ask “Who can?” they shout “We can!”

Say: “Who can?”

Students: “We can!”

Say: “Who can?”

Students: “We can!”

Say: “Who can change the world?”

Students: “We can change the world!”

“We are ALL connected!”