



Friends of Cabin John Creek

Rain Planter Instructions

Thank you for choosing to install a Rain Planter at your home. Filled with gravel, soil, and native vegetation that utilizes rainfall from the roof as irrigation, this innovative and attractive stormwater management technique is designed to slow the flow of rainwater and snow melt from roofs and gutters. This gives stormwater a chance to soak into the ground and not rush into the creek, causing erosion and carrying soil and pollutants.

SECTIONS

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Funding for this Watershed Restoration and Outreach grant project was provided by the Montgomery County, MD, Water Quality Protection Charge and managed by the Chesapeake Bay Trust.





PRE-INSTALLATION

- 1) **Complete the INTAKE FORMS** (attached) and submit them to FoCJC (RainPlanters@cabinjohncreek.org).
 - a. Rain Planter Intake Form
 - b. Maintenance Agreement
 - c. FoCJC Photo and Liability Waiver
- 2) **Take the FoCJC INTAKE SURVEY.**
 - a. You will receive a Survey Invitation Email upon receipt of your Intake Forms.
- 3) Decide on a downspout **LOCATION** for your Planter
 - a. The location needs to be positioned directly adjacent to a gutter downspout, but because the gutter can empty anywhere on the top surface of the planter.
 - b. The ground at this location needs to be flat, level, and stable. You may want to lay a gravel or paver base to establish a level surface, but this is not required.
- 4) Decide on the location of the two **DRAINAGE OUTLETS** (overflow and hose spigot) in the Planter, relative to the house and chosen downspout.
 - a. The outlets are generally positioned close together in the rear or side of the Planter, on the side closer to the house/gutter, but can be separated and/or on the side or front, as is most convenient.
- 5) **PHOTOGRAPH the installation location before the Planter is installed.**
 - a. You will need to include this photograph with your Site Assessment Form.
- 6) **Complete a SITE ASSESSMENT FORM** (attached) for each planter, to estimate the stormwater management impact of your planter, and submit it to FoCJC (RainPlanters@cabinjohncreek.org).
- 7) Once your Intake and Site assessment Forms have been received and approved, we will contact you about **DELIVERY** of your Rain Planter supplies.



EQUIPMENT NEEDED FOR ASSEMBLY

- 1) You will need the following **EQUIPMENT**:
 - a. (1) Planter
 - b. (5) Rubber Plugs
 - c. (1) Diverter and Parts Kit
 - i. (1) *FlexiFit diverter*
 - ii. (1) *Winter downspout hole cover*
 - iii. (1) *1-inch fill hose*
 - iv. (1) *Spigot*
 - v. (1) *Drain and cover*
 - vi. (1) *3-piece hole saw set*
 - vii. (2) *Water seals*
 - viii. (1) *Bag of screws*
 - ix. (1) *Instruction manual*
 - d. (1) Overflow Kit
 - i. (1) *Hose seal*
 - ii. (1) *Hole saw*
 - iii. (1) *High-capacity accordion drain hose*
 - e. (1) Plastic Trellis (24" x 24")
 - f. (12) Perforated Corrugated Pipe lengths, 4" diameter, 24" long
 - g. (2) Landscaping Cloth lengths (48" x 6')
 - h. (3) 30 lb. Bag. River Pebbles, large-sized (1-3")
 - i. (1) Bag, Raised Bed Soil, 1.5 cu. ft.
 - j. (1) River Pebbles, bagged, small-sized (1/2 - 1") (1 bag = .5 cubic ft)
 - k. (3) Native plants
 - l. (1) Roll, Flextape, waterproof
 - m. (5) Drainage hole plugs
 - n. (4) Cement Pavers (6" x6") for level site preparation (Optional)
- 2) Check that all Equipment Packs are **COMPLETE** before proceeding. A detailed description of each of the packs, with photograph, is attached.
- 3) You will need to **PROVIDE**:
 - a. (1) *Safety glasses*
 - b. (1) *Safety gloves, pair*
 - c. (1) *Power drill*
 - d. (1) *Phillips head screwdriver*
 - e. (1) *Handsaw*
 - f. (1) *4' Level*
 - g. (1) *Tape measure*
 - h. (1) *Pencil/Marker*
 - i. (1) *Scissors*
 - j. (1) *Shovel or rake for leveling soil*



ASSEMBLY

If you receive your planter pre-drilled, then skip to **INSTALLATION**.

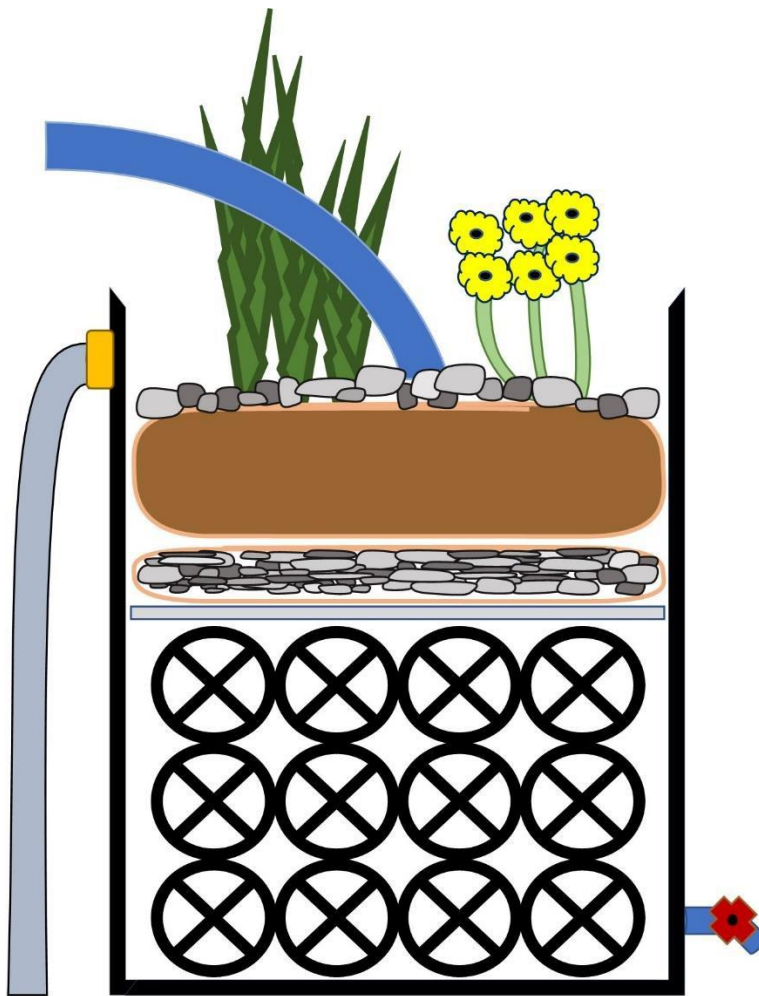
- 1) The **PLANTER** comes as a single assembled unit.
- 2) To avoid overflow of the Rain Planter, there needs to be two outlets that control rainwater levels. You will need to drill two **DRAINAGE HOLES** in the planter, using the hole-cutting bits from the Diverter and Parts Kit and the Overflow Kit.
- 3) Drill a **DRAINAGE HOLE FOR THE SPIGOT**, 3" from the planter **BOTTOM**, following Manufacturer's Instructions (attached).

If aesthetics are a concern, this drainage hole should be located on the back or side of the planter, as is most convenient to access the spigot for watering.
- 4) Drill a **DRAINAGE HOLE FOR THE OVERFLOW ASSEMBLY**, 2" from the planter **TOP** edge, following Manufacturer's Instructions (attached).
 - a. If aesthetics are a concern, this drainage hole should be located on the back or side of the planter, at a location that allows the Overflow Drain Hose to empty either:
 - i. Directly to existing downspout stub and away from the planter and house to a location in the yard
 - ii. Through a separate pipe, away from planter and house to a location in the yard
- 5) Fill the five drainage holes with the **RUBBER PLUGS** provided, cover with layer of waterproof **FLEXTAPE**.



INSTALLATION

- 1) Install the **HOSE SEAL to the OVERFLOW DRAINAGE HOLE** following Manufacturer's Instructions (attached).
- 2) Attach the spigot, following Manufacturer's Instructions (attached).
- 3) Move **PLANTER** to the downspout location that has been selected for it.
- 4) Ensure the planter is level and stable, using pavers (provided), and/or soil or gravel removal or placement (not provided).
- 5) On the downspout, mark the height of the top edge of the planter when in its final position.
- 6) Cut **HOLE IN THE DOWNSPOUT**, 2-3" above the mark indicating the top edge of the planter box, using the large hole cutting bit per manufacturer's instructions (attached).
- 7) Install **DOWNSPOUT DIVERTER** into hole cut into the downspout, per manufacturer's instructions (attached).
- 8) Lay **12 PERFORATED CORRUGATED PIPES** (4" diameter, 24" long), along bottom of planter, forming three layers.
- 9) Lay trellis flat on top level of corrugated pipe.
- 10) Install **1 LAYER OF LANDSCAPING CLOTH** (6' long), covering the trellis long-ways, leaving extra hanging down over both planter sides and ends.
- 11) Add 1-2" layer of small- to medium-sized **RIVER PEBBLES** (1 bag = 5 cu. ft.)
- 12) Fold in the sides, and then the ends, of the **LAYER OF LANDSCAPING CLOTH** over the river rocks, enclosing them.
- 13) Install **1 LAYER OF LANDSCAPING CLOTH** (6' long), covering the river rock/cloth layer long-ways, leaving extra hanging down over both planter sides and ends.
- 14) Spread 1 bag **PLANTER SOIL** on landscaping cloth.
- 15) Fold in the sides, and then the ends, of the **LAYER OF LANDSCAPING CLOTH** over the river rocks, enclosing them.
- 16) Install **NATIVE PLANTS**. For each plant, cut an X in the top layer of landscaping cloth, dig a planting hole per planting instructions, and secure plant into soil. In general, space plants ~12" on-center, and plant taller growing species in the back of the box and smaller plants in the front.
- 17) Install 1" layer of **SPLASH ROCK** (large river rocks) over top of landscaping cloth, around the plants.
- 18) Connect the **FILL HOSE** to the cuff end of the FlexiFit diverter, per manufacturer's instructions (attached).
- 19) Place Fill Hose loose end on center of Splash Rock layer.
- 20) Attach **OVERFLOW HOSE** to pre-drilled overflow outlet, and direct hose to previously existing downspout outlet or back into downspout.
- 21) Take a **PHOTOGRAPH** of the installed Rain Planter.





POST-INSTALLATION

DOCUMENTATION

- 1) Complete the **RAIN PLANTER INSTALLATION ASSESSMENT** (attached) and submit it to FoCJC (RainPlanters@cabinjohncreek.org).

MAINTENANCE

- 1) **WATER PLANTS** immediately after planting, and for the first eight weeks, water weekly, unless it has rained within the week and the soil is damp. After the first eight weeks, if plants appear to be wilting, then water as you would any garden or planter.
- 2) Keep the **DOWNSPOUT DIVERTER CONNECTED** to and directed into planter.
- 3) **WEED**, as needed.
- 4) **REMOVE LEAVES, DEBRIS, AND SOIL** from the top of the stone mulch, so it does not clog the overflow device.
- 5) In the fall, cut back or **REMOVE DEAD VEGETATION**.
- 6) In winter, **CLEAR THE OVERFLOW OUTLET** of debris, ice, and snow.
- 7) In the spring, **REPLACE ANY DEAD PLANTS** with native plant species.

MONITORING

- 1) Check the downspout planter after rainstorms to make sure that the water soaks into the soil or evaporates within 24 hours. If water is not draining, ensure that your drain valve is open.
- 2) Following an intense storm, check the downspout diverter into the downspout planter to ensure that it has been dislodged.
- 3) Inspect plants to evaluate health and replace if necessary.
- 4) Check to ensure your roof gutters that lead to the downspout are free of leaves and other debris.
- 5) Check all plumbing connections and the overall box for any potential leaking. Caulk connections or replace parts if leaking persists.

REPORTING

You will receive an email invitation to take the **FoCJC ONLINE SURVEY** on a quarterly basis, in which we will ask you to:

- 1) Confirm specific seasonally appropriate **MAINTENANCE AND MONITORING TASKS** were performed.
- 2) Report any **ISSUES, PROBLEMS, AND SUCCESSES** in stormwater management with the Rain Planters.
- 3) Provide general information about **LOCALIZED PRECIPITATION LEVELS** (rain and snow).
- 4) Submit any **PHOTOGRAPHS** of the Rain Planter or related stormwater issues, as appropriate.



PLANTER KIT PARTS
Sandhurst Fiber Clay Composite Planter Box
Wayfair.com

Dimensions: 26" x 26" x 26"
Color: Varies





PLANTER KIT PARTS

DIY Rain Barrel Diverter and Parts Kit

EarthMinded EarthMark

Available for:

2" x 3" + 3" x 4" rectangular downspouts

–OR–

3" x 4" rectangular downspouts

Contents:

- A) (1) FlexiFit diverter
- B) (1) Winter downspout hole cover
- C) (1) 31-inch fill hose
- D) (1) Spigot
- E) (1) Drain and cover
- F) (1) 3-piece hole saw set
- G) (2) Water seals
- H) (1) Bag of screws
- I) (1) Instruction manual





PLANTER KIT PARTS
Overflow Kit Rain Barrel
EarthMinded EarthMark

Contents:

- A) (1) Hose seal
- B) (1) Hole saw
- C) (1) High capacity accordion drain hose
- D) (1) Instruction manual





FRIENDS OF CABIN JOHN CREEK

Rain Planter Installation Form

1. Name:	2. Date Completed:
3. Site Location (address):	4. Participants:

5. Installation Date:

6. Have all participants signed and submitted a photo release/liability form? yes no

7. Is the property in Montgomery County? yes no

8. Is this property in the City of Rockville? yes no

9. Is this property in the City of Gaithersburg? yes no

10. Please take a photo of the Rain Planter Site BEFORE and then again AFTER installation.

11. How large is the property? _____ sq ft

12. How large is the roof surface? (house length x house width) _____ sq ft

13. How many gutter downspouts does the house have? _____

14. What proportion of the roof does the selected downspout drain? (1/# gutters) _____

15. How many square feet of roof will the rain Planter catch stormwater from? (roof surface/# gutters) _____ sq ft

16. Has the Rain Planter Maintenance Agreement been signed and returned by the homeowner? yes no

17. Rain Planter Location and Drainage Area:
On a separate sheet, please:

- Provide a satellite map image (Google Earth)
- Outline property boundaries
- Indicate existing downspouts
- Indicate selected Rain Planter placement
- Indicate area of roof that will drain to Rain Planter
- Indicate direction of stormwater from overflow hose

Example:

- Google Map provided
- The property is outlined in yellow.
- Downspouts are indicated by a green x.
- The Rain Planter (green dot) will be placed on the east side of the house (red dot).
- It drains about 87 square feet or 0.002 acres to the downspout (white box) connected to the Rain Planter.
- Overflow is directed northwest (blue arrow).



18. Please return this completed form, before and after site photos, photo release, and signed maintenance agreement to tina@cabinjohncreek.org.



Friends of Cabin John Creek

Rain Planter Maintenance Agreement

Congratulations on your new Rain Planter! Filled with gravel, soil, and vegetation that utilizes rainfall from the roof as irrigation, this innovative and attractive stormwater management technique is designed to slow the flow of rainwater and snow melt from roofs and gutters. This gives stormwater a chance to soak into the ground and not rush into the creek, causing erosion and carrying soil and pollutants. However, Rain Planters need basic maintenance in order to function successfully, and as a part of participating in the FoCJC Free Rain Planter Program, we have three homeowner requirements:

General Maintenance

- Water vegetation immediately after planting. For the first eight weeks, water weekly, unless it has rained within the week and the soil is damp.
- After the first eight weeks, if plants appear to be wilting, then water as you would any garden or planter.
- Keep the downspout diverter connected to and directed into planter.
- Remove weeds, as needed.
- Remove leaves, debris, and soil from the top of the stone mulch, so it does not clog the overflow device.
- In the fall, cut back or remove dead vegetation.
- In winter, check to make sure that the overflow outlet is clear of debris, ice, and snow.
- In the spring, replace any dead vegetation with native plant species.

Monitoring

- Check the Rain Planter after rainstorms to make sure that the water soaks into the soil or evaporates within 24 hours. If water is not draining, ensure that your drain valve is open.
- Following an intense storm, check the downspout diverter into the downspout planter to ensure that it has been dislodged.
- Inspect plants to evaluate health and replace if necessary.
- Check to ensure your roof gutters that lead to the downspout are free of leaves and other debris.
- Check all plumbing connections and the overall box for any potential leaking. Caulk connections or replace parts if leaking persists.

Modified from the Philadelphia Water Department Instructions, © 2018

Reporting

Upon receipt of an email invitation to take the FoCJC online survey, sent initially upon installation and then on a quarterly basis, we ask you to:

- Confirm specific seasonally appropriate Maintenance and Monitoring tasks were performed.
- Report any issues, problems, and successes in stormwater management with the Rain Planters.
- Provide general information about localized precipitation (rain and snow).
- Submit any photographs of the Rain Planter or related stormwater issues, as appropriate.

By signing, I acknowledge I have received and read the maintenance text, and accept full responsibility and liability for this equipment and any consequences of its installation and use.

Signature Date

Name (Print)

Address