**FAST FACTS**

- **Rain gardens** are garden beds that absorb run-off rain that could contaminate bodies of water
  - Re-creates the natural water cycle
- The **ideal location** is near the source of storm water runoff: a driveway, downspout, or discharge pipe
- The need is heavily impacted by **human influences** due to impervious surfaces and vegetation removal
- The **minimum volume requirements** for installation:

**BENEFITS**

- **Economical for residents** Howard County pledges a 50% reimbursement towards the cost of installation and 20% credit on annual storm management fees
- **Supports a ‘Greener’ Howard County** in an effort towards sustainable practices for storm water management
  - Mitigates water pollution and costly erosion
- **Beautiful landscaping** adds a natural accent to your yard
- **Vegetable rain gardens** simultaneously grow produce among the same space occupying a rain garden
  - purifies water and naturally hydrates crops
  - generates same yields as traditional garden
- **Provides a habitat** and water source for birds and good insects while discouraging mosquitoes and pests

Caitlin Banez & Juliana Funkhouser

![Rain Gardens Image]
**HISTORY**

- **Rain gardens originated in MD** and were first used in Prince George’s County in 1990 by developer Dick Brinker. They were first used to replace BMPs (best management practices pond).

- **Positive results** from Brinker’s experiments regarding water management (with a 75-80% decrease in stormwater runoff) and savings ($300,000 were saved by installing rain gardens instead of concrete surfaces).

**MATERIALS**

- **Base Layer: Any Soil**
  - It is important to keep in mind the infiltration rate of each type (sand has the highest and clay has the lowest rate).
  - *Ideal Soil Composition:*
    - Sand: 50%-60%
    - Silt Loam Topsoil: 30%-40%
    - Organic Matter/Compost: 10%-20%

- **2nd Layer: Mulch or Rock**

- **3rd Layer: Grasses, Shrubs, Plants**
  - *Ideal Vegetation:*
    - Ultimately dependent on the specific environment
    - Perennial (as opposed to annual)
    - Non-seasonal
    - Serve as residence or nourishment for native wildlife

**TOOLS:** a level, measuring tape, shovel or spade, hose, rope, string and downspout extension (optional)

**HOW TO GUIDE**

1. **Find** the water pipe
   - must be 10 ft away from other buildings

2. **Measure** the size of your roof
3. **Determine size** of rain garden
   - should be 20-30% of roof size

4. **Design**
   - should be located at the lowest point of your backyard

5. **Dig**
   - average depth is 3-8 inches

6. **Test**
   - use a hose to simulate rainwater

7. **Disconnect** the water pipe

8. **Plant** with vegetation

9. **Decorate**!