Runoff Reduction: What

The total volume of storm water reduced through:

- canopy interception,
- soil infiltration,
- evaporation,
- rainfall harvesting,
- engineered infiltration,
- extended filtration or
- evapotranspiration.

Runoff Reduction: How

1. Early Site Assessment
2. Maximize Forest Canopy
3. Conserve Soils and Contours
4. Minimize Impervious Cover
5. Utilize Rooftop Runoff
6. Front yard bioretention
7. Dry Swales
8. Linear Wetlands
9. Stream Corridor Management

BMPs: Non-Structural

- Conservation Development
- Stream and Wetland Setbacks
- Minimize disturbance in design
- Retain original trees and plant cover
- Reduce parking requirements
- Provide open space for Bioretention

BMPs: Structural

Runoff Reduction, in %

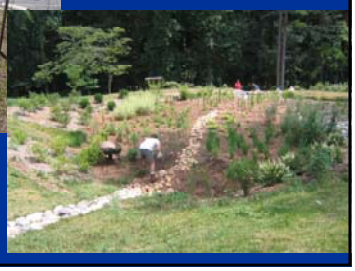
Infiltration	50 to 90%
Bioretention	40 to 80
Pervious Pavers	45 to 75
Green Roof	45 to 60
Dry Swale	40 to 60
Rain Tanks/Cisterns	40+
Roof-downspout Disconnection	25 to 50
Grass Channel	15 to 30
Dry Pond	0 to 15
Wet Pond	0
Sand Filter	0

Source: CSN and CWP

Infiltration

- Rain Gardens
- Site infiltration

Bioretention



Pervious Pavements

Green Roofs

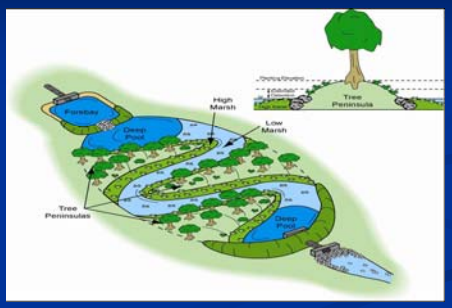
Dry Swale

Source: CSN

Downspout Disconnection

Source: CSN

Linear Wetlands



Source: CSN

Grass Filter Strip

Grass Channel

Source: CSN

Wet Ponds

- Natural drainage basins (wet ponds with natural edge)

Additional practices

- Catch Basin Insert
- Rain Tanks/Cisterns

Source: CSN

A Few Resources

- Center for Watershed Protection, www.cwp.org
- Chesapeake Stormwater Network (CSN) www.chesapeakestormwater.net
- Chagrin River Watershed Partners, www.crwp.org

Questions?

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