

# Workshop for Rain Barrel Workshop Franklin County

## *Stormwater* *Act 167 INFORMATION*

and how *Rain Barrels* can help !

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3/10/09

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## Definitions

“Stormwater” - runoff from the surface of the land, both pervious and impervious resulting from precipitation, snow or ice melt.

“MS4” – Municipal Separate Storm Sewer System



## Definitions

- “Stormwater management” - systematic control and reuse of runoff from impervious surfaces to:
  - prevent localized and downstream flooding by controlling flood flow and velocity
  - prevent stream degradation and water quality
  - prevent destruction of property and human lives
  - maintain stream base flows and ground water recharge.



# HISTORY OF DRAINAGE CONTROLS IN PENNSYLVANIA

## ACT 167: STORMWATER MANAGEMENT ACT

- The General Assembly of Commonwealth of PA enacted the "Stormwater Management Act" in October 1978.
- The policy and purpose of the Act is to:
  - encourage planning and management of stormwater runoff which is consistent with sound water and land use practices
  - to preserve and restore the flood carrying capacity of Commonwealth streams
  - to preserve to the maximum extent practicable



## Act 167 Goals and Objectives

- Identify water and land use practices
- Plan and manage sound stormwater solutions for these practices
- Administer plan through local entities



## Residents can help reduce and delay urban storm runoff

<i>Area</i>	<i>Reducing Runoff</i>	<i>Delaying Runoff</i>
<b><u>Large Flat Roof</u></b>	<ol style="list-style-type: none"> <li>1. Cistern storage</li> <li>2. Rooftop gardens</li> <li>3. Pool storage or fountain storage</li> <li>4. Sod roof cover</li> </ol>	<ol style="list-style-type: none"> <li>1. Ponding on roof by constricted downspouts</li> <li>2. Increasing roof roughness               <ol style="list-style-type: none"> <li>a. Rippled roof</li> <li>b. Gravelled roof</li> </ol> </li> </ol>



## Residents can help reduce and delay urban storm runoff

<i>Area</i>	<i>Reducing Runoff</i>	<i>Delaying Runoff</i>
<b><u>Parking lots</u></b>	<ol style="list-style-type: none"> <li>1. Porous pavement               <ol style="list-style-type: none"> <li>a. Gravel parking lots</li> <li>b. Porous or punctured asphalt</li> </ol> </li> <li>2. Concrete vaults and cisterns beneath parking lots in high value areas</li> <li>3. Vegetated ponding Areas around parking lots</li> <li>4. Gravel trenches</li> </ol>	<ol style="list-style-type: none"> <li>1. Grassy strips on parking lots</li> <li>2. Grassed waterways draining parking lot</li> <li>3. Ponding and detention measure for impervious areas               <ol style="list-style-type: none"> <li>a. Rippled pavement</li> <li>b. Depressions</li> <li>c. Basins</li> </ol> </li> </ol>



## Residents can help reduce and delay urban storm runoff

<i>Area</i>	<i>Reducing Runoff</i>	<i>Delaying Runoff</i>
<u>Residential</u>	<ol style="list-style-type: none"> <li>1. Cisterns for individual homes or groups of homes</li> <li>2. Gravel driveways (porous)</li> <li>3. Contoured landscape</li> </ol>	<ol style="list-style-type: none"> <li>1. Reservoir or detention basin</li> <li>2. Planting a high delaying grass (high roughness)</li> <li>3. Gravel driveways</li> </ol>



## Residents can help reduce and delay urban storm runoff

<i>Area</i>	<i>Reducing Runoff</i>	<i>Delaying Runoff</i>
<u>Residential</u>	<ol style="list-style-type: none"> <li>4. Groundwater recharge               <ol style="list-style-type: none"> <li>a. Perforated pipe</li> <li>b. Gravel (sand)</li> <li>c. Trench</li> <li>d. Porous pipe</li> <li>e. Dry wells</li> </ol> </li> <li>5. Vegetated depressions</li> </ol>	<ol style="list-style-type: none"> <li>4. Grassy gutters or channels</li> <li>5. Increased length of travel of runoff by means of gutters, diversions, etc.</li> </ol>



## Residents can help reduce and delay urban storm runoff

- Direct roof downspouts away from driveways and foundations and towards your lawn or planting beds where water can soak into the soil.



## Residents can help reduce and delay urban storm runoff

- Use native plants in your landscape, they are adaptable to local conditions and require less water and fertilizer than non-native plants.



## SPEAKING of Rain Barrels

- Rain Barrels help with Reducing and Delaying Urban Storm Runoff
  - Pennsylvania Best Management Practices (BMPs)
    - Chapter 6 - Structural Best Management Practices (PADEP-BMP)
      - 6.5 - Volume/Peak Rate Reduction BMPs
      - 6.5.2 - Runoff Capture and Reuse



## SPEAKING of Rain Barrels

- Rain barrels collect water runoff from a roof.
- To handle larger volumes of water, rain barrels can be used with additional water management practices such as rain gardens.



## SPEAKING of Rain Barrels

- Choose an adequate container
  - Material must be sufficiently rugged to survive the constantly changing outdoor environment and,
  - Remember to protect during winter freezes



## SPEAKING of Rain Barrels

- Place rain barrels on concrete pads or reinforced wooden platforms that will safely bear the weight of a full rain barrel and
- Ensure barrels are strong enough to withstand the pressure caused by the weight of 50 or more gallons of water.



# SPEAKING of Rain Barrels

Rain barrels may lack aesthetic appeal,  
**BUT**  
there are ways around this.



Rain barrel



Rain barrel



Questions ?

<http://www.franklinccd.org/>

[http://www.franklinccd.org/Links\\_page.html](http://www.franklinccd.org/Links_page.html)

<http://www.depweb.state.pa.us/dep/site/default.asp>



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