



Storm Water Workshop

July 11, 2011

Sponsored by:

TY, Inc., CSWCD, & Mason Steel

Presenters:

Mark K. Papke, P.E. – City Engineer

Mark Wilmot – TY, Inc.

Chad – Mason Steel (Permeable Pavers)

Amy – Cuyahoga Soil Water Conservation District



EPA – Best Management Practices (BMPs)



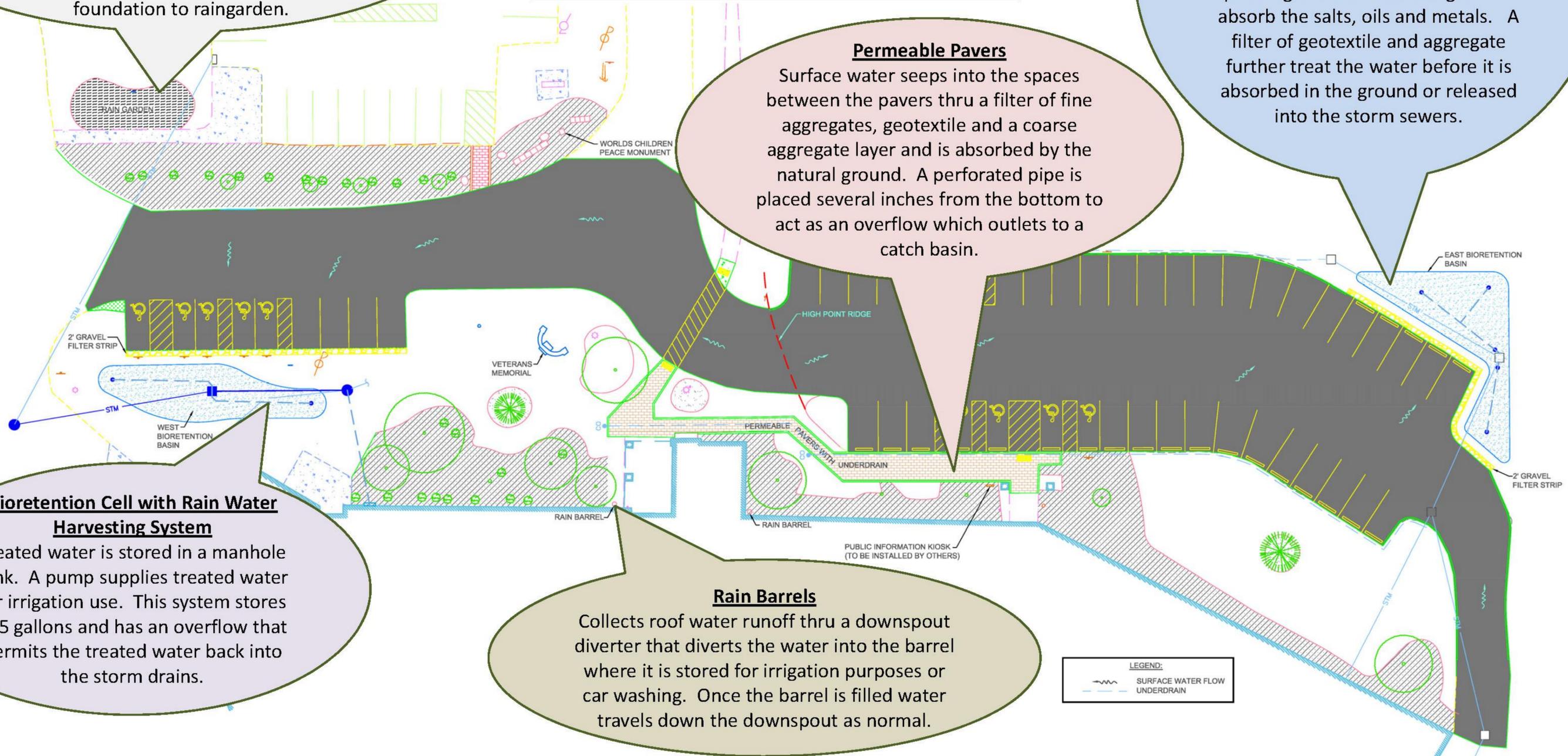
Raingarden
Same function as a bioretention cell but on a smaller scale without the inlets and storm infrastructure. Good for residential applications treating roof water with downspouts directed away from the house foundation to raingarden.

Bioretention Cell
Surface water is directed to the cell. The rock rip-rap slows the water and traps larger debris. The double shredded mulch traps sediment and debris. The deer resistant natural plantings and a special blend of planting soil with micro-organisms absorb the salts, oils and metals. A filter of geotextile and aggregate further treat the water before it is absorbed in the ground or released into the storm sewers.

Permeable Pavers
Surface water seeps into the spaces between the pavers through a filter of fine aggregates, geotextile and a coarse aggregate layer and is absorbed by the natural ground. A perforated pipe is placed several inches from the bottom to act as an overflow which outlets to a catch basin.

Bioretention Cell with Rain Water Harvesting System
Treated water is stored in a manhole tank. A pump supplies treated water for irrigation use. This system stores 575 gallons and has an overflow that permits the treated water back into the storm drains.

Rain Barrels
Collects roof water runoff through a downspout diverter that diverts the water into the barrel where it is stored for irrigation purposes or car washing. Once the barrel is filled water travels down the downspout as normal.



Ideas that treat storm water runoff, minimize erosion through storage, &

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- Ohio EPA
- TY, Inc. & Tom Simich
- Seven Hills Garden Club
 - CSWCD
- Seven Hills Residents for attending