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Stormwater Management in Your Backyard: An Extension Initiative for New Jersey, New York and Virginia

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Abstract Text:

As watershed areas in Gloucester County, NJ, Ulster County, NY and Fredrick County, VA are beginning to accommodate urbanizing communities; the adoption of stormwater management practices on residential properties protects groundwater from pollutants and facilitates the recharge of groundwater resources. A rain garden is a landscaped, shallow depression that is designed to intercept, treat, and infiltrate stormwater at the source before it becomes runoff. The plants used in the rain garden are native to the region and help retain pollutants that could otherwise harm nearby waterways.

The “Stormwater Management in Your Backyard: An Extension Education Initiative for New Jersey, New York and Virginia” project will empower local stakeholders, including volunteer Master Gardeners, farmers and landscape professionals, to design, install and maintain community and private farm rain garden demonstration sites. These stakeholders will be trained over a three year period in NJ, NY and VA by Rutgers, Virginia Tech and Cornell Cooperative Extension faculty and staff. The training will involve the installation of community rain garden demonstration sites. The project is funded by the 2007 National Integrated Water Quality Program.

The project is based on a successful stormwater management program initiated in 2005 in Union County, NJ. Thirty-one volunteer Master Gardeners received training from the Rutgers Water Quality Coordination Program on rain garden installation and maintenance. In return for the training, Master Gardeners worked with the Rutgers Water Quality Coordination Program and local stakeholders to install four community demonstration gardens. The Agricultural Agent and a Rutgers undergraduate student developed rain garden education programs for youth and adults that were offered at the demonstration sites.

Evaluation tools, such as quizzes, were used to document the knowledge gained by program participants. Adult participants improved their understanding of stormwater management. Elementary school students could identify 50% more ways to protect groundwater.

Follow-up evaluation surveys indicated that some residents were unable to install rain gardens because of drainage, labor or financial issues. The Stormwater Management in Your Backyard project will address these issues by providing training to professional landscapers and offering “mini-grants” of plant materials for 20 farm and residential rain gardens.

Impact Statement:

Briefly describe how your project has improved water quality or water resource management (up to 100 words).

Union County Program (2005 – 2007)

- The demonstration rain gardens have treated approximately 100,000 gallons of run-off from approximately 17,000 square feet of impervious surface annually.

- A fifth community demonstration rain garden was installed at the Springfield, NJ Municipal Building at the request of their Environmental Commission.

Expected outcomes of the Stormwater Management in Your Backyard Project: (2008-2010)

- 180 Master Gardeners and 90 farmers and/or landscape professionals trained.
- Six community and three farm demonstration sites installed and maintained by Master Gardeners, farmers and landscape professionals.
- Twenty rain gardens planted on private residential/farm properties.