

Rain Gardens, Buffers and Meadows

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Partners have been “rocking and rolling” to install twenty-nine community restoration projects at 12 site locations in the Linganore watershed during 2006, 2007 and, 2008! The completed projects are projected to reduce nutrients flowing into Linganore Creek headwater streams by estimated annual amounts of 615.9 lbs of total nitrogen, 43.9 lbs of total phosphorus, and 16,449.4 lbs of sediment.

With \$237,000 in funding from the Environmental Protection Agency’s (EPA) 319 h program (funds are passed through the Maryland Department of Environment), the County and many of its Monocacy & Catoctin Watershed Alliance partners have assisted landowners to install riparian buffers, upland tree plantings, warm season grass meadows, and rain gardens in Mt. Airy, Libertytown, Holly Hills and New Market.

Slowing down and filtering stormwater is a key strategy for reducing water borne pollution that flows into our streams, lakes, rivers and the Bay. Rain gardens are one way to reduce pollution. A rain garden, also called a bioretention area, acts as a sponge. It collects and absorbs water leaving roofs, lawns, and parking lots. These areas are called impervious surfaces and increase as development increases, reducing the amount of land surface that permits water to seep into the ground. Rain gardens help to slow runoff and allow water to soak into the soil, filtering the water and recharging groundwater supplies in the process. Rain gardens are planted typically with a mix of native shrubs and plants that will absorb pollution and provide food and habitat for wildlife, especially birds and insects.

Eight rain gardens were installed in Libertytown: one at Liberty Elementary, three at Liberty Village and four at Libertytown Park. Volunteers, led by Watershed Stewards Earlene and Dan Duncan, planted and maintain the gardens. A ninth garden was installed at Deer Crossing Elementary, just south of Lake Linganore. A team of teachers and parents, led by Jennifer Gorham, planted and maintains the school garden.

Another, particularly cost effective way of reducing water borne pollution, is by planting buffers along waterways. A riparian buffer is the area of land along a stream or river that is comprised of native grasses, trees, and shrubs. These areas are critical to water quality because of their ability to slow and filter storm water before it enters a creek. The roots of the plants help to stabilize the soil. The plants provide important food and wildlife habitat as well and creating a path for infiltration of storm water, thus aiding in replenishing ground water. Shrubs and trees along streams shade the streams, helping to reduce water temperatures and shed leaves and twigs into streams, providing food for benthic microorganisms, a part of the aquatic food chain.

More than 35 acres of streamside forests were planted under the grant on ten sites from Holly Hills to Mt. Airy. Volunteers planted six of the sites; contractors planted four. The sites included Village Gate, East West and Windy Ridge parks in Mt. Airy and Holly Hills golf course and homeowners' association property in Ijamsville.

Another best management practice (BMP) that helps slow down run off and reduce pollution is a warm season grass meadow. A warm season grass meadow is a meadow of perennial grasses, legumes and wildflower species like the grasslands of pre-colonial times. Warm season grass meadows provide wildlife habitat benefits including nesting cover and winter food. The roughness of the meadow also slows down run off. The deeply rooted perennials absorb pollutants in storm water run off.

Three warm season grass meadows comprising 11.7 acres were planted with assistance under the grant: one at Liberty Village, one at the nearby Libertytown Park and one at Windy Ridge Park in Mt. Airy.