What is a rain garden?

Rain gardens or “bioinfiltration systems” are beautiful landscaping features that help manage stormwater. These natural gardens, using native plants, help improve water quality, provide habitat for birds and other wildlife, and beautify yards. Rain gardens are designed to absorb stormwater runoff on a site. Runoff is produced when water flows off hard surfaces such as rooftops, driveways, and compacted lawns. By slowing the flow of runoff water and allowing it to soak into the soil instead of quickly running off the site, rain gardens can prevent pollutants (such as sediments and nutrients) from entering a nearby stream or river and then the Chesapeake Bay.

Native Plants

Native plants have adapted to thrive in local weather, soils, and ecosystems. Once fully established, these plants are hardy enough to thrive in heat, droughts, downpours, and icy conditions that occur in our region. Ornamental native plants are attractive, natural additions to any landscape.

Native plants can be used to stabilize banks and prevent erosion. They also prevent nutrient pollution from reaching the Bay by absorbing nutrients from subsurface water flow. They do not require fertilizer, and even though pests may eat some of their leaves, native plants will bounce back without the use of pesticides.

Native plants also provide food and habitat for native birds, insects, and other wildlife. Butterflies and other pollinators collect nectar from flowering plants, while songbirds eat the fruit of the shrubs. Select plants that bloom at different times to add color to your garden for a longer period and to provide nectar throughout the season.

How to Create a Rain Garden

1. Plant native trees and shrubs to create wildlife habitat that attracts native birds, pollinators, and insects.
2. Divert rainwater from paved surfaces onto grass or gardens and reduce impervious surfaces to recharge underground reservoirs and to filter pollutants.
3. Reduce lawn area—lawn chemicals and gas-powered mowers pollute the Bay.
4. Manage yard waste by composting instead of sending it to landfills or into streets and waterways.
5. Use living shoreline techniques to reduce erosion and create important habitat.
6. Minimize the use of chemical fertilizers—use compost to add fertility to the soil and boost the health of plants.
7. Use natural methods instead of pesticides to control insect pests and weeds.
8. Have your septic system pumped every three to five years and consider nitrogen removing technology for your existing or new septic system.
9. Pick up after your pet. Pet waste introduces nitrogen, ammonia, and disease to the Bay.
10. Share this list with your neighbors—working together we can restore the health of the Bay.
**LAND STEWARDSHIP for a Healthy Chesapeake Bay**

**CHESAPEAKE BAY MARITIME MUSEUM** is dedicated to telling the stories of the Chesapeake Bay and the people who have shaped their lives around it. Situated on 18 waterfront acres in the historic town of St. Michaels, Maryland, the Museum offers exhibits, demonstrations, boat rides in the historic town of St. Michaels, Maryland, the Museum offers exhibits, demonstrations, boat rides and annual festivals that celebrate the region’s farming heritage. The Museum is dedicated to community-based conservation of natural resources through environmental education and outreach on the Eastern Shore of the Chesapeake Bay. The Center’s 400-acre nature center and working farm is situated on tidal Pickering Creek in Talbot County. The Center has restored over 100 acres of coastal wetland habitat over the last ten years while still maintaining its link to the property’s farming heritage.

**PICKERING CREEK AUDUBON CENTER** is dedicated to community-based conservation of natural resources through environmental education and outreach on the Eastern Shore of the Chesapeake Bay. The Center’s 400-acre nature center and working farm is situated on tidal Pickering Creek in Talbot County. The Center has restored over 100 acres of coastal wetland habitat over the last ten years while still maintaining its link to the property’s farming heritage.

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**Wetlands and Wildlife: An Essential Connection**

*In consultation with Adkins Arboretum, the wetlands were enhanced with buttonbush (Cephalanthus occidentalis), a native woody shrub that provides pollinator habitat, cover for broods of native waterfowl, and nesting sites for waterfowl. In addition to the wetland planting, noxious weeds such as Phragmites, Canada thistle, and johnsongrass have been treated aggressively throughout the property to help ensure a balanced and diverse ecosystem.*

Restoring wetlands increases habitat for wildlife and improves water quality in the Chesapeake Bay. Wildlife such as ducks, shorebirds, frogs, and even dragonflies need wetland habitat to survive. Wetlands help filter pollutants from surface water, improving water quality in local tributaries and the Chesapeake Bay.

Wildlife centers on locally managed wetlands and wildlife centers on locally managed wetlands and wildlife centers on locally managed wetlands.

**Greening the Arboretum**

**ADKINS ARBORETUM** is dedicated to promoting the appreciation and conservation of the region’s native plants and is actively engaged in conserving and managing the native meadows, woods, and wetlands that define its 400 acres in Caroline County on Maryland’s Eastern Shore. In 2008, the Arboretum launched its Nursery Greening Program, an initiative to implement best management practices at its native plant nursery. Examples of these practices include:

- **Rain barrels** that collect roof runoff from the potting shed for use as a supplemental water source.
- **An irrigation system maintained with updated equipment** to ensure efficient water distribution to nursery stock.
- **Use of compost bins to recycle plant debris and organic waste**, and
- **A rain garden** that collects and slowly releases stormwater and irrigation runoff, removing nutrients and pollutants carried by the water.

**Meadow Magic**

Warm season grass meadows are a threatened ecosystem in the Eastern United States. As a result, the species that depend on these habitats are also in decline. Working with Chesapeake Wildlife Heritage, the Arboretum uses cutting and burning techniques to prevent its meadows from evolving into later successional forest. To maintain meadow health and biodiversity, the Arboretum monitors and removes unwanted plant species with physical or herbicide controls.

Native warm season grass meadows provide great wildlife habitat. Unlike lawn grasses, these native grasses grow in clumps, allowing wildlife to move easily through the meadow. The spacing allows wildflowers and other beneficial annual plants to germinate, attracting insects and providing more wildlife food for the birds and small mammals that rely on the plants for food and shelter.

The deep root system of warm season grasses aids in preventing soil erosion and improving water quality. The roots each subsurface water flow and remove excess nutrients before they can reach the bay.

**Adkins Arboretum meadow**

Photo by Ann Rohlfing

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