



Bay-Wise Gardening

To Help the Environment

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UNIVERSITY OF MARYLAND EXTENSION



BAY-WISE

A MASTER GARDENER PROGRAM

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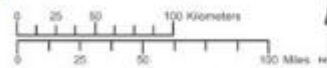
Chesapeake Bay Watershed



- Chesapeake Bay Watershed
- State Boundary
- Chesapeake Bay



Data Sources: Chesapeake Bay Program
For more information, visit www.chesapeakebay.net
Disclaimer: www.chesapeakebay.net/farmtofoam.htm



Created by EA, 1/24/08

UTM Zone 18N, NAD 83

- The Watershed includes all the land that drains into the Bay
- Chesapeake's is 64,000 square miles and reaches into 6 states
- Largest estuary in US, the third largest in world
- It includes 100,000 streams, creeks and rivers

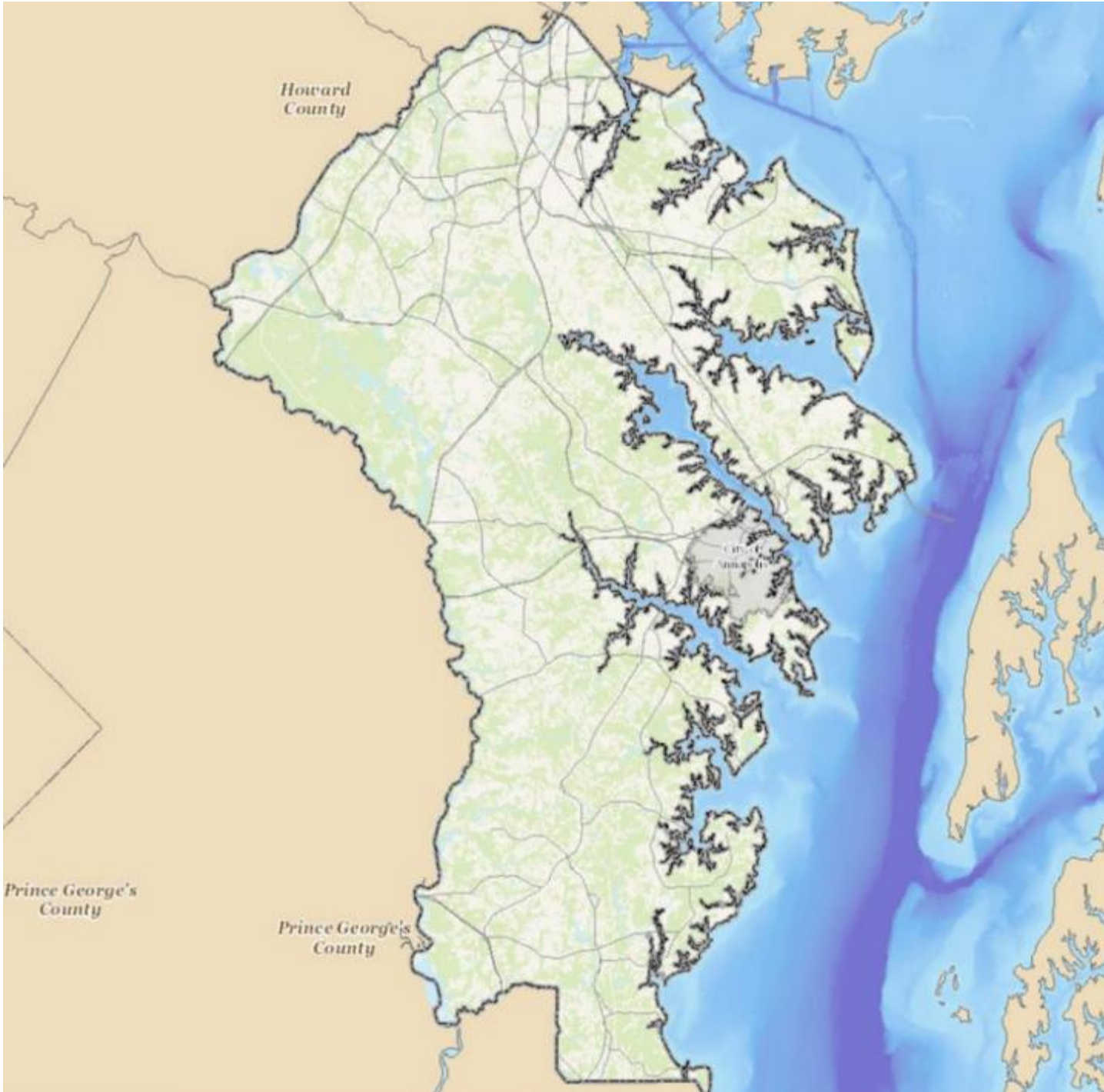
Graphic: Chesapeake Bay Program



We ALL live near the water!

- Almost all Marylanders live within a half mile of a storm drain, river or stream that feeds into the Chesapeake
- Most of Maryland – except for the westernmost corner – is in the Chesapeake watershed.

Graphic: geology.com



Anne Arundel County, MD

- 588 square miles in area
- 520 miles of shoreline
- 764 Bay-Wise Certified Landscapes since 2000
- 2,490 Certifications statewide since 1997

Graphic: maps.aacounty.org

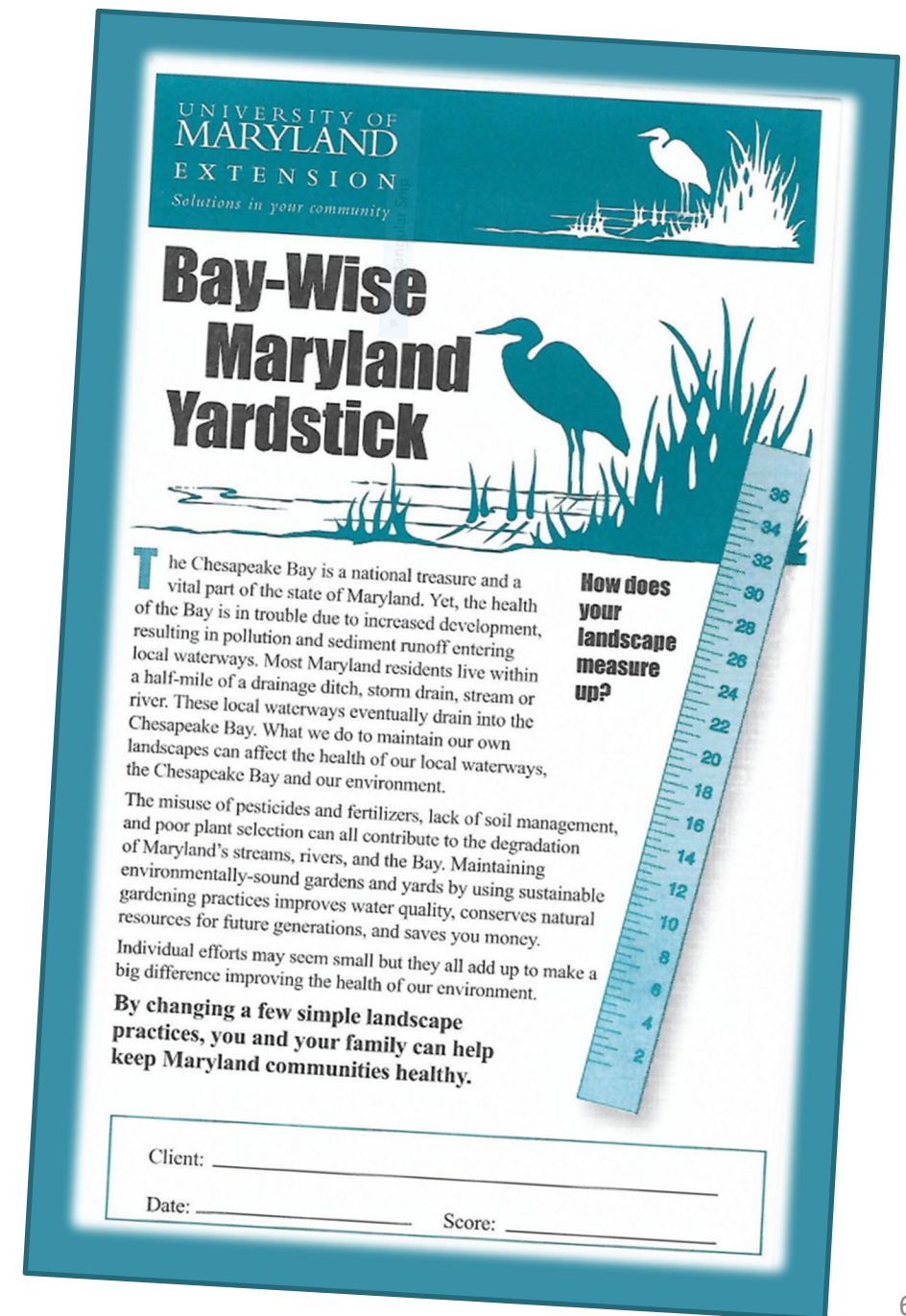
The Bay-Wise Yardstick

Best Practices Include:

1. Control Stormwater Runoff
2. Encourage Wildlife
3. Protect the Waterfront
4. Mow Properly/Water Efficiently
5. Manage Pests with IPM
6. Mulch Appropriately/Recycle Yard Waste
7. Fertilize Wisely
8. Plant Wisely

36 Inches = Certification

Download the Yardstick at
baywise.weebly.com



Water From Our Yards Can Reach the Bay

- Precipitation that doesn't soak into the ground becomes runoff
- Under natural conditions, 10% of stormwater becomes runoff
- The increase in impervious surfaces such as roads, driveways, roofs, walks and compacted lawns has increased the amount of runoff
- **Now - 55% of storm water runs off in our urban and suburban areas**
- What does runoff carry?



Graphic: rainscaping.org

Five Main Pollutants Carried by Runoff

Sediment – blocks sunlight needed by aquatic plants; too much can kill the base of the food chain, the aquatic plants

Excess nutrients – mostly nitrogen and phosphorus from fertilizers, provides too much food for algae which blooms prolifically before dying; decomposing algae depletes oxygen needed by fish and other aquatic organisms

Bacteria and other pathogens – cat and dog waste is a major source

Debris – plastic bags, bottles and other trash are a hazard to wildlife

Household hazardous waste – cleaning supplies, automotive fluids, herbicides and pesticides can poison fish and the people, pets and the other land animals that consume fish or drink the water



Photo: aawsa.org

Sediment plume



Photo: dnr.maryland.gov

Harmful algae blooms



Fortunately, everyone can help by adopting bay-friendly lawn and garden practices.



How to Slow, Spread & Soak In Water

- Rain gardens
- Rain barrels
- Rocks to slow downspouts



Photo: Robin Gill



Photo: severngrove.com



Photo: aawsa.org



Photo: Garry Fritz

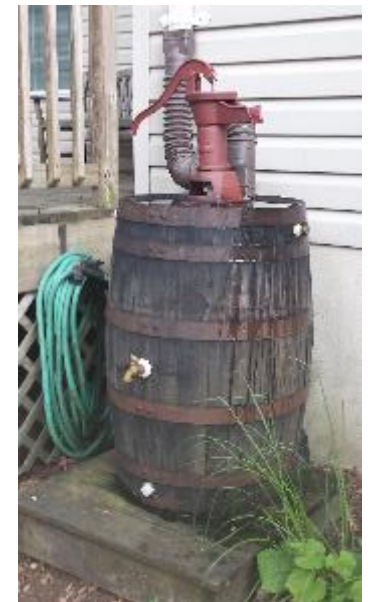


Photo: Robin Gill

More Ways to Slow Runoff

- Stone path set in mulch or pea gravel
- Swales
- Berms



Photo: aawsa.org



Photo: aawsa.org

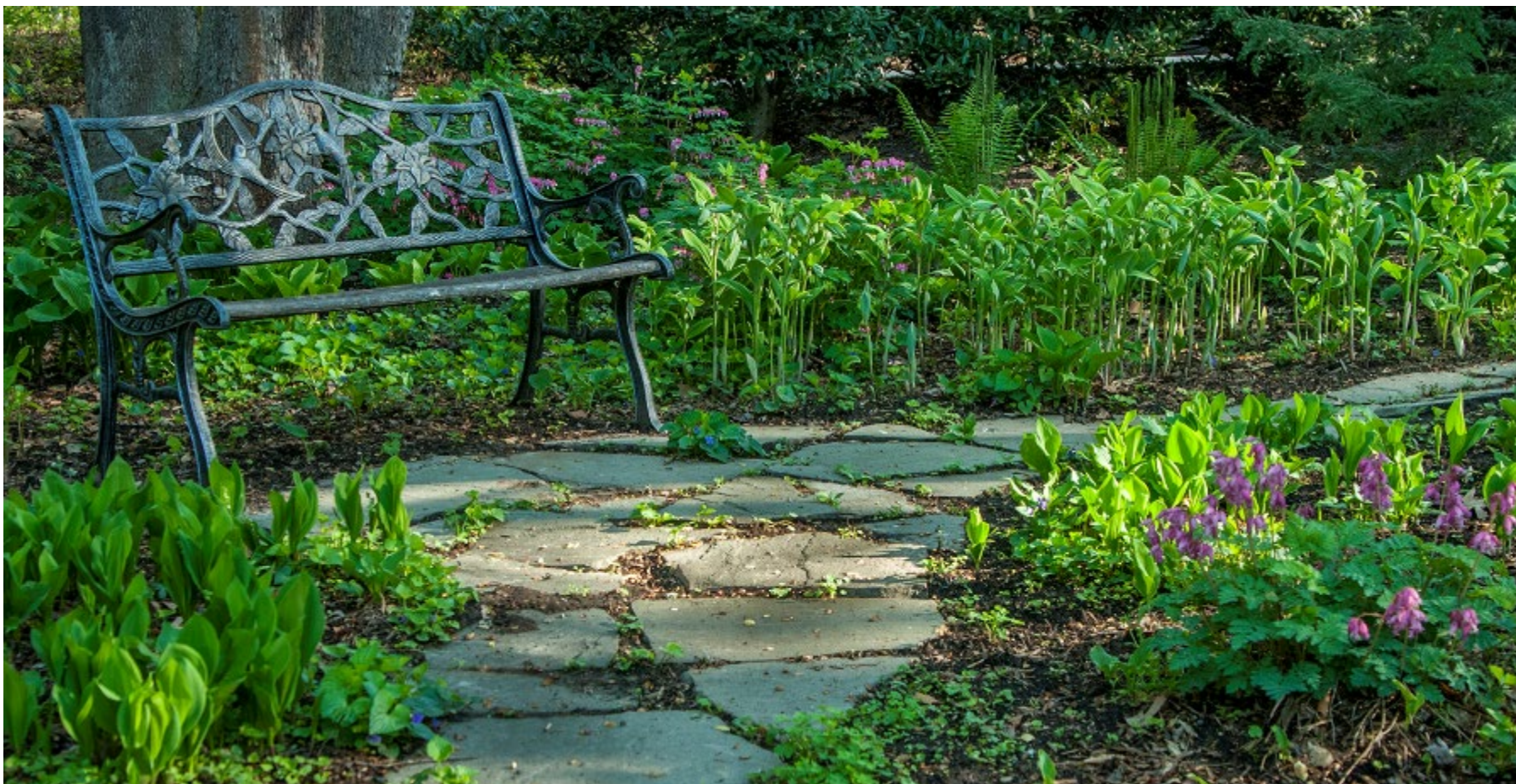
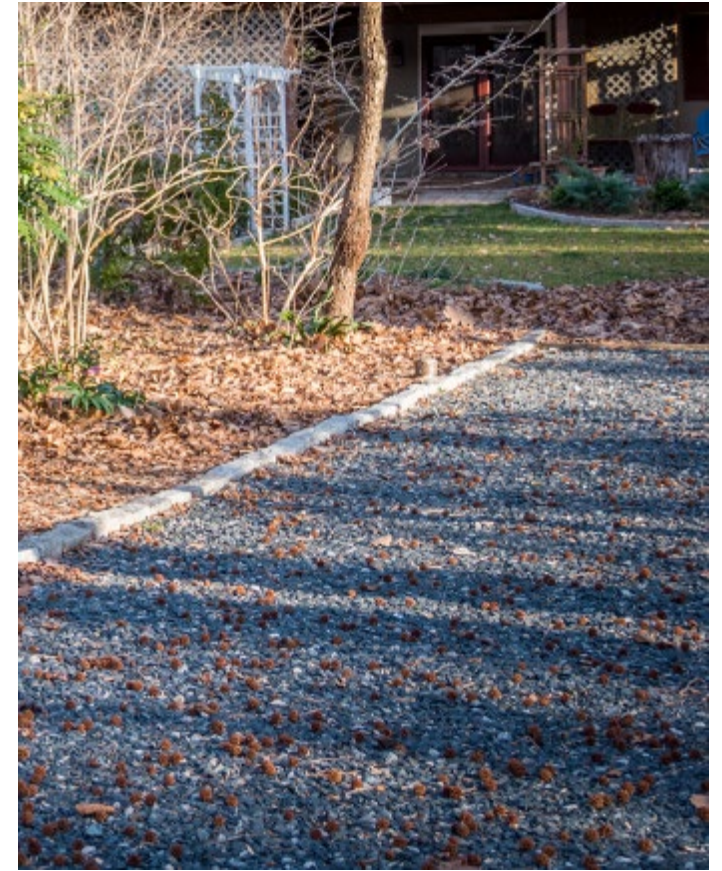


Photo: Deb Fritz

Permeable Surfaces Reduce Runoff

- For driveways, walks and patios
- These surfaces allow water to infiltrate instead of it running off. Porous Pavers, Interlocking Pavers, Open Grids, Permeable Pavement are some options
- Water flows easily through this paving material.



Top photos: Garry Fritz



Photo: extension.umd.edu



Photo: cawsa.org



Photo: mda.maryland.gov



Photo: Robin Gill

Manage your Lawn and Water with Care

- Mow it High and Let it Lie:
 - Cut 3-4 inches high to shade out and minimize weeds and encourage root growth
 - Let grass cuttings fall and stay in place to naturally feed your lawn
- Fertilize wisely:
 - Do you even need to fertilize? Test your soil to know.
 - If you fertilize, do so in the fall, not spring, for cool season grasses
- Water wisely:
 - Allow cool season lawns to go dormant in summer, watering only when they go limp
 - Group plants with similar requirements
 - Choose plants that survive on rainfall
 - Water in the AM at ground level

More Mulched & Layered Planting Beds



Photo: Wanda MacLachlan

- Mulched beds of trees, shrubs, flowers and ground covers help capture water much better than lawn.
- Beds on slopes and along outer edges of property will help keep water from running off into storm drains.

- Layer plants and groundcovers to eventually reduce or eliminate need for mulch.



Photos: Robin Gill

Benefits of Converting Lawn to Mixed Landscaping

- Reduce water use, mowing, fertilizers, herbicides, yard waste and runoff
- Save time, money on maintenance
- Increase biodiversity for wildlife, birds, bees and other beneficial insects
- Improve year-long interest
- Increase property values



Welcome Wildlife

- Shelter and water
- Avoid pesticides and yard sprays
- Berries and seeds for birds
- Nectar for pollinators
- Host plants for butterflies and moths



Photo: Garry Fritz

Chickadee at home



Photo: Sharon Schroer

Fritillary on butterfly weed



Photo: Nancy Allred

Native bee on sedum



Photo: Garry Fritz

Eastern Box turtle



Photo: Robin Gill

Water and toad shelter



Photo: Deb Fritz

Robin fledglings



Photo: Sharon Schroer

Monarch on aster

Why Choose Native Plants?

- **Well adapted** to local soil and climate
- Require **less maintenance, water and fertilizing**, once established
- **More resistant** to damaging insects and diseases, requiring less, if any, pesticides
- Provide **high wildlife value** for a healthy ecosystem
- Increasingly available at garden centers



Photos: Jim MacNicholl

Add a Variety of Ground Covers

Coral bells
Heuchera (mixed varieties)



Photo: Mary Yee

Partridgeberry
Mitchella repens



Photo: Mary Yee

Woodland phlox
Phlox stolonifera



Photo: Mary Yee

Canada Anemone
Anemone canadensis



Photo: Robin Gill

Foamflower
Tiarella cordifolia



Photo: Mary Yee

Green and gold
Chrysogonum virginianum



Photo: Robin Gill

Woodland stonecrop
Sedum ternatum



Photo: Robin Gill

Ostrich fern
Matteuccia struthiopteris



Photo: Robin Gill

Native Perennials for Sun or Part Sun

False indigo
Baptisia australis



Photo: Wasowski, Sally and Andy

Anise hyssop
Agastache foeniculum



Photo: Reveal, James L.

Blue flag
Iris versicolor



Photo: Hixson, John

Cardinal flower
Lobelia cardinalis



Photo: Smith, R.W.

Butterflyweed
Asclepias tuberosa



Photo: Smith, R.W

Golden ragwort
Packera aurea



Photo: Brundage, Stephanie

Beardtongue
Penstemon digitalis



Photo: Wasowski, Sally and Andy

Turtlehead
Chelone glabra



Photo: Reveal, James L.

Native Perennials for Shade or Part Shade

Virginia bluebells
Mertensia virginica



Photo: Cressler, Alan

Celandine poppy
Stylophorum diphyllum



Photo: Wasowski, Sally and Andy

Sensitive fern
Onoclea sensibilis



Photo: Holmes, James Garland

Crested iris
Iris cristata



Photo: Brundage, Stephanie

Wakerobin
Trillium erectum



Photo: Bransford, W.D. and Dolphia

Black cohosh
Actaea racemosa



Photo: Muller, Thomas L.

Wild columbine
Aquilegia canadensis



Photo: Mathews, Ray

Solomon's seal
Polygonatum biflorum



Photo: Reveal, James L.

Native Shrubs for a Healthy Habitat



Virginia
sweetspire
Itea virginica



Pink azalea
*Rhododendron
periclymenoides*

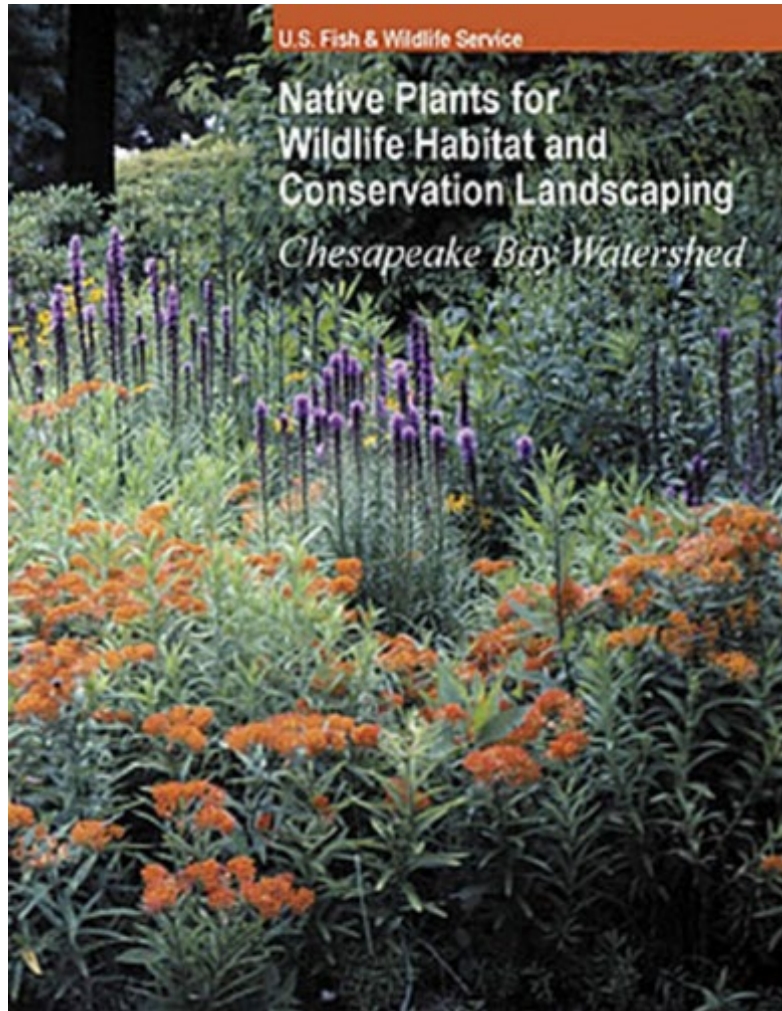


American
beautyberry
*Callicarpa
americana*

Summersweet
Clethra alnifolia



Online Resources



Can be purchased at
www.mdflora.org/publications

Bay-Wise in Anne Arundel County

Home | Getting Bay-Wise | Resources | Beneficials | How To | Let's Talk | About MGS | Contact Us |

Native Plants

The beauty of native plants and their natural resistance to insect and disease makes them an indispensable asset to your garden. Native plants help to create landscapes that possess the charm and character of our local natural history. By using these beautiful plants, you will be contributing to the conservation of our nation's species.

Marylanders Plant Trees is a program which offers \$25 off any native tree over \$50. [Click here](#) to download the tree coupon. Check with your nursery before using to ensure they participate in the program.

Publications

Native Plants for Wildlife Habitat and Conservation Landscaping

Native Plants of Maryland: What, When, Where

The Green Book for the Buffer
An illustrated guide to planting along

www.baywise.weebly.com



WELCOME TO THE
NATIVE PLANT CENTER!

SEARCH FOR PLANTS

ADVANCED SEARCH

- REGION ▾
- PLANT TYPE ▾
- SUN EXPOSURE ▾
- SOIL TEXTURE ▾
- SOIL MOISTURE ▾

SHOW MORE FILTERS

www.nativeplantcenter.net

Home & Garden Information Center

extension.umd.edu/hgic

Find great info:

- Native Planets
- Ground covers
- Managing stormwater
- Pollinators
- Sustainable lawn care
- Weeds
- Invasive Plants
- Rain Gardens and more

- Submit photos and garden questions to Extension Experts!

ABOUT | TOPICS | PROGRAMS | LOCATIONS | GET INVOLVED | RESOURCES & PUBLICATIONS | NEWS & EVENTS

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Home

About

Our Vision: People gardening and managing land in harmony with nature.

Our Mission: Develop and deliver science-based, sustainable gardening and integrated pest management education for better human and environmental health.

[About us/Staff directory](#)

Contact Us

Home and Garden Information Center
12005 Homewood Road
Ellicott City, MD 21042
Phone: [410.326.6926](tel:410.326.6926)

[Google Map](#)

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from Maryland Certified Professional Horticulturists.
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READ MARYLAND GROWS BLOG

FEATURED POST

Want to Start a Vegetable Garden? Here's How. (March 30, 2020)

PARTICIPATE MASTER GARDENER

VOLUNTEER NETWORK

Master Gardeners are volunteers who support the UME mission and teach sustainable horticultural practices. [Learn about Master Gardener](#)

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Master Gardener Consultations



Helping residents identify native plants.

Master Gardeners discuss homeowner's composting system

Photos: Robin Gill

Photos: Robin Gill

Join Us in Protecting our Bay and Waterways!



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