UNIVERSITY OF MARYLAND EXTENSION

BAY-WISE

A MASTER GARDENER PROGRAM

Maryland Living Landscapes Metric

A Checklist of Landscape Practices for Healthy Maryland Watersheds

2025 v.1

Maryland Living Landscapes Metric
A Checklist of Landscape Practices for Healthy Maryland Watersheds

Every Marylander lives within a watershed and has a role to play in caring for the land, water, air, wildlife, and each other. Every action we take, every small positive change we make to improve water quality, soil health, and habitat counts in a big way. Many of the practices on the following checklist can result in cost- and time-savings, as well!

For over a quarter century, Maryland Extension's Bay-Wise Program has led the way on improving water quality across Maryland's residential landscapes by promoting ecologically-sound landscape and gardening practices that improve water quality, reduce pollution, cool ambient temperatures, and enhance habitat through voluntary actions. Bay-Wise Master Gardeners have certified 3,500+ landscapes in that time and maintain hundreds of demonstration sites across the state.

This checklist highlights eight essential habits that Maryland residents can adopt today to support healthy Maryland watersheds:

1. Recycle organic yard and kitchen waste on-site.
2. Capture and use precipitation where it falls.
3. Plant and conserve a wide variety of native plants.
4. Protect pollinators and beneficial insects.
5. Reduce hazards to fish & wildlife.
6. Shrink your lawn footprint.
7. Protect our waterways and shorelines.
8. Educate friends, family, and neighbors about MD Living Landscapes practices.

Small actions by individuals can add up to big improvements in air and water quality, human health, energy conservation, biodiversity, flood and drought mitigation for our communities. By making some simple changes in how we relate to and manage residential areas as living landscapes, we can ensure a more climate-resilient future for Marylanders and the Chesapeake Bay.

Choose which actions you're willing to try along the way to adopting these positive environmental habits that help protect our watersheds that provide us with abundant clean water for communities and agriculture, fresh air to breathe, healthy soil to grow gardens and absorb stormwater, shade to cool our neighborhoods in the summer, and food to eat.

Each action taken is worth 3 points. Earn points in each category, for a total of 80-100 points, to be considered for a certification visit and a beautiful yard sign that lets the world know that you are "Bay-Wise" or, in western Maryland, "Water-Wise."

Habit 1: Recycle organic yard and kitchen waste on-site

Use organic materials produced on-site to increase soil organic matter and biodiversity in your yard and garden to improve stormwater absorption, create habitat, recycle nutrients, and reduce the need for synthetic fertilizers.

Actions:

- [ ] **Leave leaves** where they fall, for habitat and healthy soil. https://go.umd.edu/leavetheleaves
- [ ] **"Grass-cycle"** by leaving grass clippings on the lawn as fertilizer. https://go.umd.edu/grass-cycle
- [ ] **Mulch lightly with organic material:** leaves, pine needles, arborist wood chips, undyed bark much. https://go.umd.edu/mulch-matters
- [ ] **Create brush piles** for wildlife and pollinators, away from buildings. https://go.umd.edu/brush-piles
- [ ] **Leave stumps and logs** as habitat and a source of soil organic matter.
- [ ] **Compost kitchen and/or yard waste.** Create an outdoor compost bin or pile. Compost indoors using any of a variety of methods: vermicompost with a worm bin or use an indoor composting device. https://go.umd.edu/outdoor-composting https://go.umd.edu/vermicomposting

Habit 2: Capture and use precipitation where it falls

Retain and filter stormwater on-site to improve water quality and reduce local flooding, erosion and drought impacts. These practices could apply to a wide array of residential locations, from single family homes and HOA's to apartment complexes, as well as parks, nature centers, businesses, municipal buildings, institutions like schools, hospitals or libraries, or other community spaces.

Actions:

- [ ] **Install rain barrels or a cistern** to capture and use rainwater where it falls to water landscaping. https://go.umd.edu/rain-barrels-cisterns

- [ ] **Direct downspouts** over landscaping or lawn. https://go.umd.edu/downspouts

- [ ] **Plant native plant beds as stormwater runoff buffers** to capture stormwater before it runs off site.

- [ ] **Install a rain garden or conservation landscape** to absorb stormwater runoff. https://go.umd.edu/rain-gardens

- [ ] **Water non-edible plants with rainwater** instead of municipal or well water, when possible.

- [ ] **Reduce and replace impervious surfaces** with more permeable alternatives. This could range from a wood chip path or stepping stones for a footpath to more highly engineered options. https://go.umd.edu/permeable-hardscapes

- [ ] **Clear debris from storm drain entrances.**

You may wish to consult Maryland Extension watershed resources (https://go.umd.edu/watershed-protection) and the Chesapeake Bay Landscape Professional Directory (https://certified.cblpro.org/location/) to find professional assistance on serious stormwater and erosion issues. You may also report flooding issues to your local municipal stormwater authority. **In the event of a flood emergency, please move to higher ground if possible, call 911, and follow any local evacuation orders.**

Habit 3: Plant and conserve a wide variety of native plants

Design and manage landscapes with native plants for their ecosystem services, biodiversity, and habitat value. Make ecologically conscious planting decisions. https://go.umd.edu/MDNativePlantsProgram

Assess ecological site conditions. Actions:

- [ ] **Map local site conditions:** soil type, sun/shade, water flow, salt exposure, existing plants. Get familiar with surrounding ecosystems. https://go.umd.edu/find-your-soil

- [ ] **Conduct soil tests** in planting areas to assist with proper plant selection. https://go.umd.edu/soil-testing
- [ ] **Select suitable native plants** for local site conditions. https://go.umd.edu/native-plant-finder
- [ ] **Identify and conserve native plants** where they occur.

Design for habitat. Actions:

- [ ] **Create habitat layers** in your landscape design: native ground cover, grasses, forbs, shrubs, trees.
- [ ] **Plant native evergreens** (ground cover, ferns, vines, shrubs, trees) for winter wildlife cover.
- [ ] **Plant or protect keystone tree species** such as oaks, pines, hickories, red maples, black cherry, and black willows. https://go.umd.edu/keystone-trees

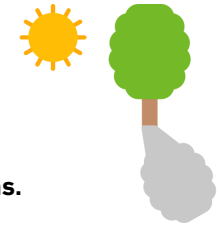
- [ ] **Plant native berrying shrubs** of several species.
- [ ] **Create, protect, or expand a natural habitat area** suitable to your location: grassland, shrubland, wetland, or woodland.
- [ ] **Encourage native understory** growth in wooded areas.
- [ ] **Conserve tree cavities or snags** for wildlife nesting and roosting.

Habit 3: Plant and conserve a wide variety of native plants

Design for ecosystem services. Actions:

- [ ] **Plant densely**, using a variety of native plants, in multiples of 3-7. https://go.umd.edu/native-plant-list

- [ ] **Plant native trees and shrubs for windbreaks, shade, and/or energy conservation:**
    - Deciduous trees on south and eastern side of building for summer shade https://go.umd.edu/shade-landscape
    - Evergreens on north and west side of building for winter windbreaks https://go.umd.edu/windbreaks



- [ ] **Choose native plants for erosion control.** https://go.umd.edu/plants-for-erosion

- [ ] **Choose native plants for hedgerows or visual screens.** https://go.umd.edu/privacy-screen-plants

- [ ] **Use native plants in stormwater management features,** like drainage swales, bioswales, rain gardens, or buffer strips.

Water wisely. Actions:

- [ ] **Use collected rainwater to water native plants**, when possible and if needed.

- [ ] **Water only at signs of drought stress.**

- [ ] **Use soaker hose or drip irrigation** when watering is required.

- [ ] **Water at the base of native plants.**

- [ ] **Water early in the day**, allowing foliage to dry before dusk to reduce disease risk.

- [ ] **Water native plants separately** from lawn & ornamental plants, to better calibrate water use.

Habit 3: Plant and conserve a wide variety of native plants

Mulch mindfully. Actions:

- [ ] Use only a **thin layer of mulch** (2-3"). https://go.umd.edu/mulch-matters

- [ ] Use **organic mulch materials**: arborist wood chips, leaves, pine needles, or bark. Avoid using synthetic mulch materials: landscape fabric, plastic, or dyed bark.

- [ ] **Keep mulch away from woody stems/trunks.**

- [ ] **Allow native trees & shrubs to "self-mulch"** with their own leaves.

- [ ] **Choose "green mulch" options,** like densely planted native sedges, bunch grasses, or ferns, to outcompete weeds.

Practice proper native tree care. Actions:

- [ ] Care for **tree roots** properly. https://go.umd.edu/mulching-trees-shrubs

- [ ] **Practice proper planting** of woody plants (trees & shrubs). https://go.umd.edu/planting-trees-shrubs

- [ ] **Plant "soft-landings" beds under keystone trees**, a vegetated ground layer that supports fledgling birds and emerging butterflies and moths. https://go.umd.edu/soft-landings

- [ ] **Protect/transplant native seedlings/saplings.** Protect from deer browse and mowing with tree tubes. Transplant native seedlings away from building foundations.

Habit 3: Plant and conserve a wide variety of native plants

Design and manage landscapes with native plants for their ecosystem services, biodiversity, and habitat value. Make ecologically conscious planting decisions.

Actively manage invasive, non-native species. Actions:

- [ ] **Don't plant invasive, non-native plants.** https://mdinvasives.org/
- [ ] **Inventory and make a plan for removing invasive plants early and often,** before they go to seed. https://go.umd.edu/invasive-plant-guide
- [ ] **Use best practices to manage invasive, non-native plants.** Hand pull weeds before they go to seed. Cut back non-native, invasive vines like English ivy that will damage high value canopy trees such as oaks. Dig up roots of rhizomally spreading plants.
- [ ] **Properly dispose of invasive plant matter.** https://go.umd.edu/disposing-non-native-plants

- [ ] Re-plant densely with **assertive native plants**. https://go.umd.edu/assertive-native-plants

If you live adjacent to woodlands or forest, become a Woodland Steward.

Actions:

- [ ] Conduct a Woods in Your Backyard Assessment.
- [ ] Enroll in Woods in Your Backyard Course. https://go.umd.edu/woodland-stewards
- [ ] If you steward 10 acres or more of woodlands, contact Maryland Department of Natural Resources for a Forest Stewardship Plan.
- [ ] Support regulated hunting of female deer to reduce over-browsing.

Habit 4: Protect pollinators and beneficial insects

Protect beneficial insects that provide valuable ecosystem services like pollination, natural pest control, decomposition, nutrient cycling, and nutrition for wildlife, like songbirds and small mammals.

A native pure green sweat bee (*Augochlora pura*)

Actions:

- [ ] **Don't apply neonicotinoid pesticides**. https://go.umd.edu/pollinators-and-pesticides

- [ ] **Use non-pesticide strategies** to manage yard pests. https://go.umd.edu/integrated-pest-management

- [ ] **Leave non-diseased plant material** in the landscape for beneficial insect use:
    - Stems & twigs- https://go.umd.edu/stem-nesting-bees
    - Stumps & logs
    - Leaf litter

- [ ] **Plant or protect a wide variety of native plant species** known to support beneficial insects (flowers, berrying/flowering shrubs, native grasses, trees, herbs).

- [ ] **Plant for continuous blooming in a variety of flower colors and shapes** from early spring through late fall for season-long nectar and pollen sources.

- [ ] **Plant or protect native plants that support pollen specialist bees.** An estimated 25% of native bees are pollen specialists! https://go.umd.edu/specialist-bees

- [ ] **Create a Monarch butterfly garden that provides a variety of food resources from egg laying through fall migration.** Planted in combination, the following are excellent options and will benefit many other species: native milkweeds, asters, common evening primrose, goldenrods, joe pye-weed, and ironweeds. Woody plants throughout the landscape also provide essential pupation sites.

Habit 4: Protect pollinators and beneficial insects

- [ ] **Protect native ground-nesting bees**. Approximately 70% of native b ees are ground-nesters!
    - **Opt for low- or no-till** gardening and landscaping strategies.
    - **Avoid using pesticides or attempting to eliminate ground-nesting bees**
    - **Leave some bare ground** where ground-nesting bees occur
    - **Avoid deep mulching** (no deeper than 2-3 inches)

- [ ] **Provide a source of shallow, clean water** that can be easily changed out daily, especially during hot, dry periods.

- [ ] **Plant edible plants that attract and feed beneficial insects and allow them to flower** (e.g. anise, basil, dill, carrot, coriander, fennel, mint, anise hyssop, kale, Asian greens, parsley, sage, chamomile, and thyme).

- [ ] **Learn to distinguish common beneficial insects** of Maryland from common insect pest species. https://go.umd.edu/pollinators-and-beneficials

Habit 5: Reduce hazards to fish & wildlife

Recognize that improving habitat comes with a responsibility to be a good steward of Maryland's wild creatures. Avoid creating ecological "traps" that harm fish and wildlife.

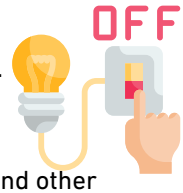
Actions:

- [ ] **Don't disturb or interfere with breeding birds** (nests/nest sites, eggs, nestlings, and fledglings). https://go.umd.edu/protect-migratory-birds

- [ ] **Minimize poisons in your landscape** (e.g. neonicotinoid pesticides, rodenticides, toxic chemicals).

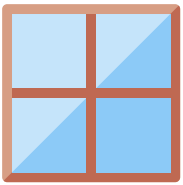
- [ ] **Minimize water waste and runoff** that can become polluted as it flows over land.

Habit 5: Reduce hazards to fish & wildlife



- [ ] **Turn off outdoor lights at night** for migrating birds and beneficial insects or switch to yellow outdoor light bulbs. https://go.umd.edu/lights-out

- [ ] **Keep cats indoors.** Domestic cats prey upon songbirds and other wildlife. https://go.umd.edu/keep-cats-indoors



- [ ] **Minimize window reflections** to reduce bird collisions. https://go.umd.edu/bird-collisions

- [ ] **Properly install, clean, and maintain wildlife structures,** if you have them. Install predator guards on wildlife boxes. https://go.umd.edu/cleaning-bird-feeders

- [ ] **Provide clean source of fresh water** throughout the year, especially in times of extreme heat and freezing cold.

- [ ] **Clean up fishing and other marine debris** along waterways (e.g. tackle, lures, fishing line, nets) and properly dispose of it. https://go.umd.edu/marine-debris

- [ ] **Use fencing or repellents** to deter unwanted wildlife from your garden.

- [ ] **Facilitate safe wildlife crossings.** Reptiles and amphibians are especially vulnerable as they embark on local migrations in spring and fall to and from their breeding and brumation (overwintering) sites. https://go.umd.edu/wildlife-crossings

- [ ] **Avoid using plastic mesh netting** in your landscaping that can trap and injure wildlife.

- [ ] **Avoid using outdoor bug zappers** (electric traps) as they do not effectively manage biting insects and have been shown to impact beneficial beetles, moths, and more. go.umd.edu/bug-zappers

Habit 6: Shrink your lawn footprint

Manage lawns in ways that reduce their negative impacts on our waterways and maximize ecological function and biodiversity of your residential landscape.

Actions:

- [ ] Follow requirements of **Maryland's Fertilizer Law**. https://go.umd.edu/maryland-fertilizer-law

- [ ] **Minimize routine applications of fungicide, herbicide, and/or insecticide.**

- [ ] **Replace sections of turfgrass** in areas with a variety of native plant alternatives with higher habitat and water absorption value (ex. sedges, moss, ferns, native grasses, forbs, berrying shrubs, native trees). This can be especially strategic in areas that are hard to maintain (e.g. steep, wet, rocky, shady, salty). Create a "no-mow" zone with a turfgrass alternative like fine fescue or sedges and incorporate native plantings. https://go.umd.edu/challenge-of-lawns

- [ ] **Switch to electric lawn equipment.**

- [ ] **Core aerate lawn** initially to improve gas & water exchange, water absorption in first 3 years. https://go.umd.edu/lawn-aeration

- [ ] **Select low-maintenance grasses** like native bunch grasses or fine fescue that require less mowing.

- [ ] **Mow at your highest setting.** "Mow 'em high and let 'em lie!" Recommended height: 3.5-4 inches, if your mower goes that high. Choose "grass-cycling" over synthetic fertilizers.

- [ ] **Water wisely:**
    - Irrigate/water only during lawn establishment
    - Allow healthy turf to go dormant
    - Don't allow irrigation water to run off-site
    - Install automatic shut-off on irrigation/sprinkler system
    - Conduct sprinkler system check-up & repair
    - Water plants, not pavement

Habit 7: Protect our waterways and shorelines

All Marylanders live, work, and play in a watershed. Wherever we are, the impacts of our actions can be felt all the way to the coast. Take action today to protect our waterways and shoreline areas.

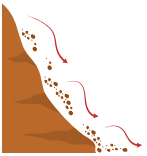
Actions:

- [ ] **Plant native plant buffers along waterways** to capture and filter runoff.

- [ ] **Keep leaves and grass clippings out of waterways.**

- [ ] **Opt for natural or green/living shoreline management** wherever feasible. https://go.umd.edu/living-shorelines

- [ ] **Monitor and document shoreline erosion.** https://mycoast.org/md/storm



- [ ] **Keep plastic debris out of our waterways:**
  - Organize/participate in regular plastic litter cleanups in your neighborhood
  - Reduce plastic consumption
  - Use a plastics recycling bin with a lid

- [ ] **Pick up pet waste and dispose properly**, in a trash can. Don't flush pet waste. https://go.umd.edu/scoop-the-poop

- [ ] **Be "salt-smart".** Don't oversalt. Sprinkle, use straw or sand for traction, and sweep it all up after the thaw. https://go.umd.edu/be-salt-smart

- [ ] **Use car wash** instead of hand-washing cars on the street or driveway to prevent water pollution.

If you have a septic system:

- [ ] Conduct a professional **septic inspection** if not done in past 5 years or if the system is over 20 years old

- [ ] **Pump septic** every 3-5 years.

- [ ] Follow **septic maintenance** best practices. https://go.umd.edu/maintain-septic-systems

Habit 8: Educate friends, family, and neighbors about Bay-Wise/Water-Wise MD Living Landscapes practices

Tap into your social networks to spread the word and help make widespread environmental improvements.

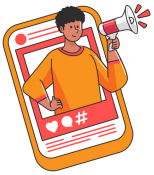
Actions:

☐ **Post informational/educational signage.**

☐ **Establish "cues to care"** that show neighbors that your ecological landscape is being tended. https://go.umd.edu/cues-to-care

☐ **Tell your story:**

- Speak at a local gathering.
- Lead a garden or landscape tour.
- Educate your local leadership: HOA, municipal, or county.
- Share native plants and/or information about where to purchase them locally.
- Share your experience on social media.



Total Your Score!

(Multiply your number of actions by 3 to calculate your score for each category, then total in bottom row.)

Section	Number of Actions	Score
Habit 1		
Habit 2		
Habit 3		
Habit 4		
Habit 5		
Habit 6		
Habit 7		
Habit 8		
Total		

Notes

Notes

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Acknowledgements

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Contact Information

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sslorenz@umd.edu

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go.umd.edu/get-bay-wise

Application for Bay-Wise Site Certification

Once you have scored at least 80-100 points on the metric, please return this checklist and application to your local University of Maryland Extension Office. Bay-Wise Certifiers will review your information and contact you to schedule a certification site visit, depending on availability in your county. To find your local office, please visit: extension.umd.edu/locations

Part A

Check appropriate box:

☐ I would like a certificate only

☐ I would like a sign only*

☐ I would like both a certificate and sign*

Part B

Please print:

Name: _____

Phone #:_____

Address:_____

Town/City:_____

Zip Code:_____

Name of Community:_____

County:_____

Email:_____

***Signage Agreement**

I,_____, am willing to share my

(Please Print Name)

Maryland Living Landscapes knowledge freely with my friends and neighbors. I have gotten permission from my community/homeowners association to display a 6" x 7" aluminum sign (on a 3-foot high stake) in my front yard.

_____ _____

(Signature) *(Date)*