UNIVERSITY OF MARYLAND EXTENSION | HOME & GARDEN INFORMATION CENTER

Water-Wise

Garrett County Yardstick

Garrett County is home to some of Maryland's most beautiful rolling hills, mountains, streams, lakes and rivers; however, pollution and development threaten our waterways.

Most residents live within a half-mile of a drainage ditch, storm drain, stream, or river. All of these waterways eventually drain into a larger body of water downstream. What we do to maintain our own landscapes can affect the health of our local waterways and ultimately our environment.

Acid mine drainage, aging infrastructure (wastewater), the overuse and misuse of pesticides and fertilizers, soil erosion, poor stormwater management practices, and incorrect plant selections have all contributed to the degradation of our streams, lakes, and rivers.

Sustainable and environmentally friendly landscaping practices can improve water quality and conserve natural resources for future generations. We all need to do our part to take care of waterways and the environment. By changing a few simple landscape practices, you, your family, neighbors, and friends can help keep our communities healthy for future generations.

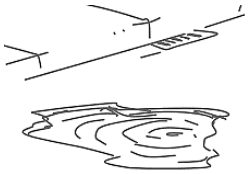
Is your property Water-Wise?

Homeowners can contribute to a cleaner environment by implementing several environmentally sound approaches from the categories below.

- Control Stormwater Runoff
- Encourage Wildlife
- Protect the Waterfront
- Smart Lawn Care
- Manage Yard Pests with IPM
- Mulch Appropriately/Compost Yard Waste
- Manage Your Landscape Wisely
- Plant Wisely

Directions for Waterwise Evaluation: Read through the landscape management practices on the following pages and select those actions that you have already taken in your yard. Mark your credits on the yardstick (on the last page). Once you reach 36 inches (credits) on the yardstick, a Maryland Master Gardener will visit your site and do an analysis to complete the certification.

Control Stormwater Runoff



Below are some landscape practices that reduce the quantity and improve the quality of water that leaves your property. By slowing down the water and cleaning it up before it exits your property you can improve water quality. Water runoff often has soil particles and pollution, such as debris, fertilizer, and pesticides, which can harm living organisms, habitats, and water quality.

Actions:	**Possible Credit**	**Credit**
Direct downspouts and gutters to drain onto the lawn, plant beds or rain gardens where precipitation will soak into the soil rather than running off. Be sure to direct this water away from the house to avoid wet basement and foundation problems.	**1“**	
Plant native groundcovers on thinly vegetated areas, under trees or on slopes to decrease erosion.	**1“**	
Use porous pavers, brick or paving stone set in sand, gravel, mulch or other porous surfaces for walkways, patios and driveways.	**1“**	
Avoid soil compaction; or to restore and enhance infiltration, deep till and amend compacted soil with compost.	**1“**	
Plant mulched beds containing native trees, shrubs, or ground covers along the low edges of your property to catch the run off.	**1“**	
Install a rain garden where it will catch runoff from roofs or other impervious surfaces trapping pollutants. This will also slow and direct the flow of stormwater instead of allowing it to run off your property.	**1“**	
Install rain barrels to collect water from downspouts to be used later. This reduces runoff and reuses this natural resource. (1 inch for each rain barrel, up to 4)	**Up to 4”**	
Keep grass clippings, fallen leaves, and other yard waste out of storm drains, waterways, and drainage areas.	**1“**	
Participate in DNR Forest Services’s Backyard Buffer Program.	**2”**	
Control Stormwater Runoff	**Total:**	

Protect the Waterfront

Waterfront properties include small streams, creeks, rivers, and lakes. These fragile ecosystems need special management considerations so that these waterways can increase quality of life for people, animals, and plants.

For information pertaining to Deep Creek Lake specifically, including activities on the buffer strip and site specific questions contact the Deep Creek Lake NRMA Office by calling 301-387-4112.

Actions:	Possible Credit	Credit
Establish a border of low maintenance vegetation adjacent to all bodies of water including streams, storm drains and water retention ponds to absorb nutrients, slow runoff, and provide wildlife habitat.	3“	
Use native grasses with deep root systems, such as switchgrass, little bluestem, or Indian-grass, to stabilize hillsides along waterways.	2“	
Do not fertilize within 25 feet of any waterway or your well.	1“	
Keep grass clippings, other yard waste and animal waste away from stream banks, water-ways or the river’s edge.	1“	
Protect the Waterfront	**Total:**	

Encourage Wildlife

Wildlife thrive on native plants. Provide adequate food, water, and shelter to increase the amount and type of wildlife species that visit your yard.

Actions:	Possible Credit	Credit
Provide and properly maintain a water source, such as a birdbath or small pond, for wildlife. (Change birdbath water every other day to provide a fresh, clean drink and discourage mosquitoes.)	1“	
Provide and properly maintain wildlife shelters, add spaces for wildlife, such as a toad house, birdhouse, a dead tree (snag), woodpile and/or brush piles. (Keep wood piles away from the house to deter unwanted insects.)	1“	
Plant butterfly larva host plants such as, white turtlehead (Baltimore checkerspot), sassafras (spicebush swallowtail), hazelnut (luna moth), black cherry (hummingbird clearwing) and milkweed (monarch butterfly).	1“	
Identify the native trees, shrubs, forbs, grasses, and ferns. Appreciate the high wildlife value that they add to your landscape. Examples: sugar maple, black elderberry, New England aster, little bluestem, and cinnamon fern.	1“	
Identify existing and/or plant natives such as wild columbine, beebalm, cardinal flower, and trumpet honeysuckle to encourage visits from hummingbirds.	1“	
Plant natives that provide cover, nesting areas, or produce berries/seeds for birds such as flowering dogwood, Allegheny serviceberry, black or red chokeberry, cut- leaved coneflower, wild geranium, Indian-grass, and switchgrass.	1“	
Encourage pollinators to visit your yard by including bluestem goldenrod, butterfly milkweed, hollow Joe-pye weed, New York ironweed, spike blazing star and wild pink.	1“	
Encourage Wildlife	**Total:**	

Plant Wisely

The "right plant for the right place" philosophy is based on plant needs. Group plants in the landscape according to their water and maintenance needs. Plant species diversity creates unique habitats and healthy ecosystems. Maryland natives require less water, fertilizer and pesticides.

Actions:	**Possible Credit**	**Credit**
Replace problem-prone plants with better adapted, non-invasive species .	**1"**	
Incorporate a variety of native plants into your landscape. Give yourself credit if you have at least 4 different species. List them:_____,_____,_____,_____.	**2"**	
Plant drought tolerant turfgrass species: such as turf-type tall fescue, Kentucky bluegrass, perennial ryegass, fine fescue, or mixtures (instead of higher maintenance species).	**1"**	
Determine grass needed for recreation (children & pets) and ornamental purposes. Grass requires extensive maintenance to grow well, potentially resulting in greater air and water pollution. Replace unneeded lawn areas with beds of low or no maintenance ground covers, perennials, shrubs or trees.	**2"**	
Trees/shrubs shade southern and western walls of home and air conditioner compressors equaling energy savings.	**1"**	
Deciduous trees on southern exposures create passive winter heat.	**1"**	
Evergreen trees and shrubs on northwestern exposures protect homes from cold winter winds.	**1"**	
Educate yourself or take a class about invasive plants and avoid planting anything invasive.	**1"**	
Consulted experts to help select species to avoid future problems and Miss Utility to find ideal planting locations.	**1"**	
Evaluate one tree from property using https://mytree.itreetools.org/ to estimate the amount of carbon dioxide and pollution it removes from the air, as well as the amount of stormwater it can help mitigate.	**1"**	
Remove invasive plants: yellow archangel, Japanese spirea, burning bush, Japanese stiltgrass, butterfly bush, Japanese barberry, spotted knapweed, exotic bush honeysuckles, common daylily, autumn olive, Japanese knotweed, purple loosestrife, Norway maple, and garlic mustard	**1"**	
In areas with no foot traffic, use native groundcovers or shrubs.	**1"**	
	Plant Wisely	**Total:**

Smart Lawn Care

Lawn care requires time, money, and water. Conserve water by mimicking natural weather patterns; do not water during summer. Only water your lawn and landscape to keep from perishing. Garrett County receives an average of 40-48 inches of precipitation annually, more than any other area in MD; thus, irrigation may not be needed. By minimizing water application you can also reduce runoff .

Actions:	**Possible Credit**	**Credit**
Mow cool season grasses high (3 - 4 inches) to encourage a deeper, more drought and pest-tolerant root system. A higher cut lawn shades out weeds. Remove no more than a third of the grass blade when you mow.	**2"**	
Use a reel (push) mower or electric mower powered by a sustainable source instead of a gas- powered one to eliminate, or at least reduce, air pollution from burning fossil fuels. According to the EPA, operating a typical gasoline-powered lawn mower for one hour produces the same amount of smog-forming hydrocarbons as driving an average car almost 200 miles under typical driving conditions	**2"**	
Design and maintain a landscape that, once established, will survive on natural rainfall amounts, by planting trees, shrubs and perennials that are native/ adapted to your area.	**3"**	
Mulch leaves for natural fertilizer and reduces landfill space, helps to reduce leaves from clogging up sewers and away from surface water where the broken-down nutrients from the dead leaves can cause algae blooms.	**1"**	
Irrigation: (If you do not irrigate lawn, skip this section and give yourself 3" of credit)	**3"**	
Allow cool season grasses to go dormant during summer months	**3"**	
If you must irrigate your lawn, do so only when it begins to wilt. Be sure to follow local water ordinances. Apply ½ to 1 inch per application (to a depth of 6 inches), but never more than the soil will absorb. Stop watering when water begins to run off. Long, slow soaking applications are good; avoid short, frequent, shallow applications, which can actually do more harm than good.	**1"**	
Water in the morning to conserve water (watering during the heat of the day causes higher losses to evaporation). Morning watering also reduces potential disease problems (evening watering encourages diseases).	**1"**	
Direct water to the soil at the base of the landscape plant. Excess water on the leaves increases the potential for foliar diseases and evaporation	**1"**	
Use drip- or micro-irrigation to conserve water in plant and flower beds	**1"**	
Give your irrigation system a check-up. Replace broken and mismatched sprinkler heads. Redirect sprinkler heads so that water falls only on lawn and garden areas, not on paved surfaces	**1"**	
Perform occasional overhead watering during hot dry weather, which can temporarily help cool plants and provide moisture for beneficial insects & spiders.	**1"**	
Do an irrigation system check-up. Replace broken and mismatched sprinkler heads. Redirect sprinkler heads so that water falls only on lawn and garden areas, not on paved surfaces.	**1"**	
Calibrate your irrigation/sprinkler system to apply no more than 1 inch of water per application	**1"**	
Install a rain shut-off device on your automatic sprinkler system. The shut-off device will override your system's timer when an adequate amount of rain has fallen.	**1"**	

Because their water needs are different, design or modify your irrigation system to water lawn areas separately from plant beds.	**1“**
Smart Lawn Care	**Total:**

Manage Your Landscape Wisely

Maryland Department of Agriculture states that lawn fertilizer accounts for approximately 44 percent of the fertilizer sold in Maryland. Excess fertilizer application can create salt problems in the soil, affect winter hardiness, exaggerate pest problems, and make plants grow excessively (more mowing). Fertilize only as needed based on soil test recommendations. Do not over fertilize. Nitrogen and Phosphorus are two nutrients found in most fertilizers that can leach out of soil, wash off landscapes and pollute water sources. Once in our waterways, nutrients contribute to the growth of algae blooms that block sunlight from reaching underwater vegetation. Thus, robbing the water of oxygen and threatening underwater life.

Actions:	**Possible Credit**	**Credit**
I do not have a lawn.	**9“**	
I never fertilize my lawn and/or landscape plants. (Move on to next Section)	**7“**	
I do not fertilize within 25 feet of my well/spring water source.	**1“**	
Fertilize and lime lawn according to the soil test recommendations (test soil every 3 years) and in accordance with Maryland Lawn Fertilizer Law, which took effect October 1, 2013.	**2“**	
Amend soil with lime and/or fertilizer for lawn grasses based on University of Maryland Extension grass species specific recommendations.	**1“**	
Apply fertilizer based on soil test recommendations that are in accordance with University of Maryland Extension guidance	**1“**	
Minimize the need for synthetic lawn fertilizers by using a mulching blade on your mower and leaving grass clippings on the lawn to decompose. This is called grass-cycling and can “fertilize” your lawn for free.	**1“**	
Use compost, slow release, or natural organic fertilizers. Buy fertilizers that contain 30% or more of the nitrogen in slow-release forms. Look for words such as water insoluble nitrogen (WIN), controlled release nitrogen, sulfur coated urea (SCU), IBDU, urea formaldehyde (UF) or resin-coated urea	**1“**	
Avoid spilling/leaving granular fertilizer on paved surfaces. Sweep it back onto the lawn or collect it for use later.	**1“**	
During autumn, mow the lawn lightly when covered with fallen leaves. Leave finely shredded leaves on the lawn to decompose and release nutrients to the lawn. Mulching mowers are great for this task. This action adds ‘free’ nutrients to the lawn which reduces the amount of recommended fertilizer by 25 or 30%.	**3“**	
Acid-loving plants such as black huckleberry, fetterbush, mountain laurel, teaberry, sourwood, and the various native azaleas, blueberries, & rhododendrons grow best in soils with a pH 4.5 to 6.0. Fertilize with acid-forming fertilizers, but test soil periodically to prevent making the soil too acid	**1”**	
Hire a Licensed Tree Expert for tree pruning/removal work.	**2”**	

Manage Your Landscape Wisely Total:

Manage Pests with Integrated Pest Management Practices (IPM)

IPM is a comprehensive process used to manage pests. It involves an understanding of the life cycle of the pest, other organisms, (like beneficial organisms, our pets and ourselves) and the effects of a pesticide on all of these things. When confronted with a pest problem, consider all possible options for control before using a pesticide. Pesticides should be used sparingly. Remember the label on the Pesticide container is the **LAW**. It must be fol- lowed correctly and the pest or problem you are treating for must be on the label.

Actions:	**Possible Credit**	**Credit**
Understanding and learning that some damage is okay and even necessary in establishing a healthy ecosystem. (which includes insecticides, fungicides, herbicides, and rodenticides). Credit yourself, if you do not use pesticides at all.	**5“**	
Avoid routine applications of pesticides. Spot treat only affected plants or lawn areas rather than spraying your entire lawn and landscape. (Ask your lawn and landscape maintenance company to follow these strategies if they maintain your landscape)	**1“**	
Learn about and then identify three beneficial insects that provide natural control of harmful pests. List them__,_____, &____. (Note: praying mantis are not necessarily beneficial - they will eat beneficial insects as well as pests; but they do indicate an environment where few harsh pesticides are used).	**3“**	
Many edible garden plants also attract & feed beneficial insects. Plant at least one plant that can do double duty: anise, basil, carrot, coriander, dill, fennel, mints, anise hyssop, kale, Asian green, parsley, sage and thyme, as examples.	**1“**	
Use environmentally friendly pest management tools, such as attractants (like slug traps), barriers (like floating row cover), and hand picking insects to control pests in preference to pesticides. Avoid using the Japanese beetle traps in your landscape, as they attract more adults.	**1“**	
A non-toxic way to control weeds is to hand-pull when possible. If removed when they are young and tender, it requires less effort.	**1“**	
Remove plant debris and diseased plants to prevent the spread of disease from one season to the next.	**1“**	
If deer, bears, groundhogs, raccoons or rabbits are a problem in your garden, use fencing or repellents to deter or repel them. Consult **DNR Wildlife Services** for guidance on wildlife issues by calling **301-334-4255.**	**1”**	
Attract beneficial insects to your garden by planting a variety of native plants and herbs, which can help decrease pests, provide habitat, and offer nectar and pollen sources through small flowers	**1”**	
Adopt the use of bear-proof trash cans.	**1”**	
Manage Pests with Integrated Pest Management Practices	**Total:**	

Mulch Appropriately/Compost Yard Waste

Mulching retains soil moisture, moderates soil temperature, helps prevent erosion, and stops weed germination. (Note: Never use freshly ground organic material for mulch. Freshly cut brush or hardwood bark robs nitrogen from the soil causing plant yellowing. Allow these materials to age for at least 6 months prior to use) Grass clippings, leaves, and biodegradable kitchen scraps should be composted. (not sent to the landfill or ground in kitchen disposal). For additional fees, Garrett County Landfill accepts loose grass clippings and leaves.

Actions:	**Possible Credit**	**Credit**
Maintain no more than a 2- to 3-inch layer of organic mulch over the roots of trees, shrubs and in planting beds. Deeper mulch may prevent water from filtering down to the plant roots. Prevent wood mulch from coming in contact with tree or shrub bark. The same microorganisms that break down the mulch will damage and destroy woody plants. Leave at least 1 inch of space between the base of the tree or shrub and the mulch.	**2“**	
Create self-mulching areas under trees and shrubs where non-diseased leaves and pine needles can remain where they fall.	**2“**	
Use by-product mulches such as shredded hardwood, pine bark, or pine bark nuggets. These are available from your community or check your local garden center. (Caution! Excessive use of hardwood mulch can cause manganese toxicity in acid-loving plants, like azaleas.)	**1“**	
For mulch, use compost, fallen leaves, dried grass clippings and pine needles found in your yard as mulch under trees, shrubs and in flower beds rather than bagging and discarding them. Pine needles are great in beds of acid-loving plants including mountain laurel, native azaleas and rhododendrons. Natural and free!	**1“**	
Create and maintain a compost pile with collected clippings, leaves and kitchen scraps (no animal products and be wildlife aware). Check your local regulators to see if kitchen scraps can be used.	**2“**	
Adopt an indoor compost system (Bokashi composting, vermicomposting, etc).	**1“**	
Mulch Appropriately/Compost Yard Waste	**Total:**	

Homeowner Name: **Property Address:**

	Total Action Credit Inches	
Control Stormwater Runoff	“	
Protect the Waterfront	“	
Encourage Wildlife	“	
Plant Wisely	“	
Manage Your Landscape Wisely	“	
Smart Lawn Care	“	
Manage Pests with Integrated Pest Management Practices	“	
Mulch Appropriately/Compost Yard Waste	“	
Above 36” makes your landscape Water-wise!	”	**Total**

Once you have your yardstick completed, please contact the University of Maryland Extension by calling 301-334-6960 to schedule your site consultation with a Garrett County Master Gardener!

Original Bay-Wise Yardstick Compiled and Created by:

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expression.