

HEADWATERS

PUBLICATION OF MARYLAND SEA GRANT EXTENSION WATERSHED EDUCATORS

Inside this Issue

- + Anywhere it Rains, it can Flood
- + Helpful Resources to Support Homeowners Planting Trees
- + Getting Ready for Spring
- + Could Your Home's Water Use Some Spring Cleaning?
- + First Sign of Spring
- + Spring Greening with Trees



Image: Eric Buehl

Greetings Loyal Headwaters readers:

Spring is when exciting things happen, and whether you follow the meteorological or astronomical start of spring, the bottom line is, plants are coming alive and filling the outdoors with brilliant colors and smells! Spring is also a time in which yardwork begins to take up more time on weekends, along with repeated visits to the local nursery to see what's in bloom. In this issue, we offer up some ideas for use both in and around the house during spring. So once you've pruned your shrubs, raked up any leftover leaves, and replaced the mulch in the landscaped beds, take a few minutes to relax and enjoy this issue of Headwaters.

As always, if you are interested in more information about a particular topic or about our program, we'd love to hear from you, so please don't hesitate to contact us.

Sincerely,

The Maryland Sea Grant Extension Watershed Educators Team





Anywhere it Rains, it can Flood

+ KELSEY BROOKS

Is where you live susceptible to flooding? While some places are certainly more flood prone than others, the reality is that “anywhere it rains, it can flood.” Communicating to residents about the dangers of flooding and what can be done to address the impacts is complicated by both the many different ways flooding occurs and the even greater number of terms that are used to describe those causes. Types of flooding include:

Fluvial (riverine) flooding, which generally occurs as a result of precipitation events when rivers and streams overflow their banks. Fluvial flooding can be delayed as excess water coming from upstream can overwhelm downstream stretches hours after a storm ends.

Pluvial (ponding) flooding, which also generally occurs as a result of precipitation events when water collects in low-lying areas where there is inadequate drainage. Together pluvial and fluvial flooding may also be referred to as **surface water flooding**.

Groundwater flooding occurs when the water table rises. Unlike **pluvial** and **fluvial** flooding which may follow flashy storm events, groundwater flooding is often caused by sustained heavy rainfall over a longer period of time as the ground becomes increasingly saturated.





"More than one type of flooding can occur at the same time and have compounding impacts"

Nuisance flooding or **sunny day flooding** refers specifically to tidal flooding that inundates low lying areas. Unlike pluvial flooding, nuisance flooding is not tied to a rain event.

Sewer overflows and **water main breaks** can also cause flooding in urban areas. Sewer overflows are often the result of a storm event and may also be tied to groundwater flooding. Both of these flooding types are heavily influenced by the age and condition of the infrastructure.

More than one type of flooding can occur at the same time and have compounding impacts. To help Maryland residents increase their awareness of the dangers of flooding and what to do to stay safe, state agencies designated April Maryland Flood Awareness Month. Check out the #FloodAwareMD across social media to see resources that were posted. More information can be found on the [Maryland Resiliency Partnership's](#) website.





Helpful Resources to Support Homeowners Planting Trees

+ NICOLE BASENBACK

It's been an unusually snowy and icy winter, and I can't wait for spring! This is a great time to start planning your spring planting of native plants and trees. It's helpful to visit landscape nurseries with a plan for how many plants and what species would be a good fit for your yard. Maryland Department of Natural Resources encourages the planting of native tree through several initiatives. The Backyard Buffer Program provides a FREE bundle of bare root tree seedlings to homeowners, so that they can start planting a riparian buffer adjacent to a creek, stream, or even drainage ditch. A buffer of trees is beneficial to our waterways, because they help create habitat for wildlife, and reduce the amount of sediment, nutrients and other pollutants that enter our local waters. Visit their website for information on how to contact the local coordinator and reserve your bundle!

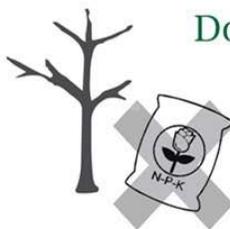
Another option for homeowners, is to take advantage of DNR's Marylanders Plant Trees coupon. It's worth \$25 towards the purchase of trees that are native to Maryland when used at a participating nursery. Be sure to check their website for a list of tree species and nurseries that are eligible. If you don't have space to plant trees or would like to give a unique gift, supporting the "Gift of Trees" program is a fun option. You can purchase trees as a gift that will be planted in public spaces in the County where the gift was made, and a certificate will be mailed to the recipient.





Plant tree when dormant

Late-winter through mid-spring (April) and early-fall through mid-fall, are the best times to plant woody ornamentals. Trees can be planted any time the soil isn't frozen, but summer planting when trees are in full leaf can be stressful and should be avoided.



Don't fertilize

Don't fertilize newly planted trees and shrubs. This seems contrary to common sense, but research studies show most of a plant's energy is directed at root growth during the establishment period. The application of nitrogen during this period seems to suppress root growth rather than enhance it.

Monitor newly planted trees weekly

Check the soil for adequate moisture and check the foliage and branches for problems. Be sure to keep all newly planted trees and shrubs well-watered throughout the first two years, even in the winter, if needed. But do not water when the ground is frozen.



"Mulch Volcano"



"Mulch Donut"

Refrain from overmulching

Always keep mulch shallow, from one to three inches. Pull mulch away, about 3 inches, from the base of tree trunks so it isn't touching the bark. Don't pile mulch deeply around the base of trees and shrubs. Excessive mulch reduces soil oxygen for roots, suffocating them and causing them to die. Mulch piled up against the trunks of trees and shrubs keeps the bark moist underneath the mulch causing decay and a possible entry point for diseases and insects.

Plant the right tree in the right place

Consider how much sunlight and moisture an area gets, and select a species of tree that matches those conditions. Plant trees a minimum of 10 feet from buildings and other structures. Be sure to look at what the mature size of the tree is to ensure that it will be a good fit for the location.



Based on information compiled by Debra Ricigliano from publication HG 24 Planting Tips for Trees, Author: Raymond Bosmans, University of Maryland Extension Specialist, Home and Garden Information Center (retired); Revised: Robert Stewart, University of Maryland Extension (retired). <https://extension.umd.edu/hqic/topics/planting-a-tree-or-shrub>





Would you like to get digging, but aren't sure where to start? Check out the University of Maryland Extension Home and Garden Information Center (HGIC)!

+ NICOLE BASENBACK

Would you like to get digging, but aren't sure where to start? Check out the University of Maryland Extension Home and Garden Information Center (HGIC)! Their website has a wealth of details about hundreds of topics and the helpful "Ask a Gardening Expert" tool. If you see a concern with your trees leaves, trunk, or perhaps a potential pest, you can send your plant questions, and a photo, to a Maryland Certified Professional Horticulturists at the HGIC and they will contact you with an answer. Your local Master Gardeners are also helpful resources. To learn more about learning and volunteering with the group, visit <https://extension.umd.edu/mg>. Happy planting!

Maryland Department of Natural Resources

- [Backyard Buffer Program](#)
- [Tree-mendous Maryland Program](#) – Gift of Trees program, Arbor Day Poster Contest, Marylanders Plant Trees

[Marylanders Plant Trees \\$25 coupon](#)

University of Maryland Extension

Home and Garden Information Center

- [Ask a Gardening Expert](#)
- [Trees and Shrubs](#)
- [Master Gardener Program](#)





Getting Ready for Spring

+ JACKIE TAKACS

I don't know about you – but now it's spring and the days are getting longer, and the air and soil temperatures are slowly starting to rise – I get antsy to get outdoors and start working in all my various gardens. Take it from someone who has done this on more than one occasion – resist the urge to plant too early – Maryland is notorious for sneaky late frosts that can damage, if not outright kill, your newly planted flowers or vegetables.

Now is the time to start preparing yourself and your property for planting. If you haven't done so yet, take some time to consider what your current landscaping looks like, what maintenance needs to be done and what new projects you might want to tackle. Start by asking yourself a few questions like:

- Are you happy with your current gardens or would you like more low maintenance native options?
- Did you have erosion issues last year that you would like to fix this year?
- Do you have stormwater issues that you would like to redirect into a current or new garden?
- Are there areas of your property that you don't use that could be reforested or turned into a low maintenance wild-flower meadow?

Once you have a good idea of your wants and needs, it's time to start doing what you can now so you can spend those hot humid Maryland days on the porch sipping favorite beverage and not killing yourself in your yard.





"Now is a great time to install or do maintenance on a rain barrel"

Get out now and:

- In existing rain gardens, conservation landscaping and other garden beds - deadhead, remove and compost old plant materials. Pull weeds, edge gardens and apply a new layer of mulch if needed.



- Design and construct new rain gardens, conservation landscaping and other garden beds – apply a nice layer of mulch to protect the soil until it's time to plant.



- Check your water sources: Make sure your hoses and spigots are in working order. Now is a great time to install or do maintenance on a rain barrel.

If you really need to plant something:

- Start your own plants from seeds for that new garden or to fill in your older gardens



- Reseed turf areas.

- Plant any trees or large shrubs.

For more information on starting your own seeds or planting in general, make sure to check out all the great resources at our [Home & Garden Information Center](#). Go to our [watershed](#) pages for more information on stormwater management in your landscape.





Could Your Home's Water Use Some Spring Cleaning?

+ ANDY LAZUR

As we all look forward to winter giving way to warmer days, we often think about spring cleaning projects around the home. If you have a private well, it is up to you to make sure your water is safe to drink. Testing your water is an easy task to forget, so why not put it on your spring-cleaning to-do list.

What Should You Test For?

The University of Maryland Extension recommends that you test your well annually for nitrate, coliform bacteria, and E. coli to ensure that animal waste is not contaminating your water. We recommend annual testing because the quality of groundwater—the source of your drinking water—can change over time. When rainwater falls, it can be exposed to numerous sources of contamination before it percolates down through the soil to recharge your aquifer. Once underground, gravity and pressure direct the flow of groundwater, bringing any contaminants with it. Aquifers span great distances, so while groundwater flow is relatively slow, contamination from activity far away can eventually affect your well. Testing annually for nitrates and coliform bacteria allows you to track any changes in water quality.



A few contaminants, like iron and manganese may be easy to see in you water. Both can cause a reddish-brown discoloration. While iron is not pleasant in water, it does not pose a health risk. Manganese has been linked to neurological disorders in infants and children. Most important is that most drinking water contaminants that can impair your health are





"While iron is not pleasant in water, it does not pose a health risk".

odorless, colorless, and tasteless, making it hard to tell if your water poses any danger to you or your family.



If it's been several—or even just a few—years since you last tested your water, make sure to also include chloride, copper, E. coli, hardness, lead, manganese, pH, total dissolved solids and sulfate. You can check with your [county health department](#) for their recommendations on any contaminants of local concern to test for such as arsenic or radon.

How Can You Get Your Water Tested?

Testing is relatively simple. Refer to our [website](#) or contact your county health department to get recommendations for certified water testing labs. Every lab offers different packages, so check online for pricing. Once you have selected, the lab can send you sample bottles with sampling and mailing





"An annual check-up for your well water is a wise investment in protecting your family's health"

instructions. The lab will send you an analysis that reports your specific test results, including indications of any parameters that exceed the EPA guidelines. If any of your results exceed the EPA guidelines, you should contact your county health department or our [Extension Water Quality Chat](#) to identify what treatment, if any, is warranted. You can also use this online [interpretation tool](#) to better understand what your report is telling you.

Testing is the only way to know the quality of water you and your family are drinking. An annual check-up for your well water is a wise investment in protecting your family's health. In addition, this is a great time to have your septic tank pumped. This should be done at least every 2-5 years depending on use. Pumping helps to reduce the potential for solids or fats, oils and grease from entering, and potentially clogging your drainfield. So, remember to include drinking water testing and septic tank pumping to your spring-cleaning chores.





First Sign of Spring

+ ERIC BUEHL

Some people consider warming temperatures, longer days, or migrating birds as signs of spring's arrival. Since we all have our own barometers of seasonal change, we thought it would be interesting if we shared our Team's perspective on what we consider as our own first sign of spring. We'd love to hear what you consider your first sign of spring, so drop me an email at ebuehl@umd.edu and I'll share it with the Team!



NICOLE: she says her first sign of spring is when the jasmine vine on her porch starts to bud and bloom.



JEN: "it's spotting my first Osprey of the season! When I see one I know that warmer weather and sailing are coming soon."



Image: "Osprey" by Seokhee Kim is licensed with CC BY 2.0. To view a copy of this license, visit <https://creativecommons.org/licenses/by/2.0/>



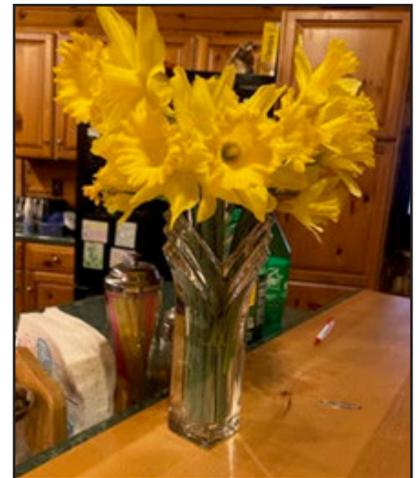


“these little beauties provide pollination services for many insects and are edible for humans as well.”



AMANDA: she says it's spring ephemerals, particularly common violets. "They are so often overlooked or seen as a weed, but these little beauties provide pollination services for many insects and are edible for humans as well."

JACKIE: it's the first bouquet of fresh cut flowers and planting early spring vegetables in the garden.



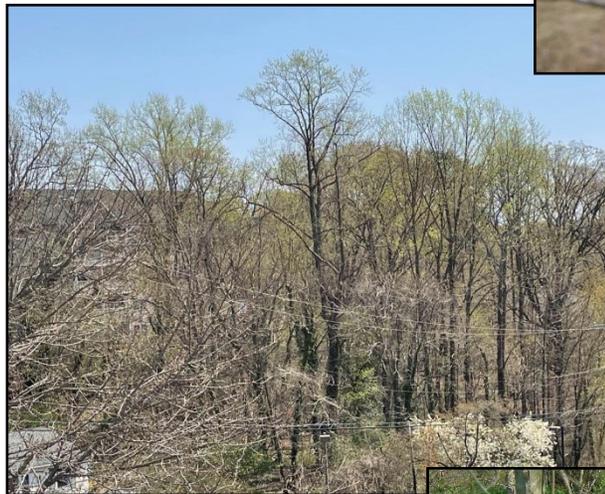
KELSEY: like many other allergy sufferers, she knows that the arrival of spring brings on seasonal allergies, so to her, it's the coat of yellow pollen on everything.





*"Nothing says it's
spring like a stinky
plant popping up
through the mud!"*

ANDY: he says it's
all the Red Maples
budding out.



BILL: "it's the ever so
faint green leafing out
on the trees. When you
are certain that it is
real and not just your
hopeful imagination."

ERIC: it's the
appearance of skunk
cabbage in the
floodplain and wooded
wetlands. Nothing says
it's spring like a stinky
plant popping up
through the muck!





Spring Greening with Trees

+ AMANDA ROCKLER

Can you believe that Spring is here? If you are caring for existing trees or planting new trees this spring season, here are a few quick tips.

Caring for your trees

- Examine trees- look for any storm damage, winter wear and tear, and insect damage
- Prune out dead growth in late winter or early spring
- Invigorate your soil- get a soil test, de-compact it, add amendments as needed
- Make sure tree is well protected from wildlife
- Weed and mulch as needed

Selecting trees (modified instructions from Arbor Day Foundation)

- Roots should be moist and fibrous
- Roots should be about equal to stem length in deciduous trees
- Ensure that tree is not girdled in growing container and pruning is clean
- Leader should be strong and trunk should be slightly tapered
- Bark should be free from insect or pruning injury
- Branches should be equally distributed around trunk, at least 8-12” for most species





Spring native plant sales are popping up all over the state, so check the Maryland Native Plant Society's website for sale listings at <https://mdflora.org/>. If you are itching to get started and are planting on public land (schools, churches, open space, etc.), you can order trees through the [Tree-Mendous Maryland Program](#).

If you want to learn more about selecting and planting trees, download our [fact sheet](#).



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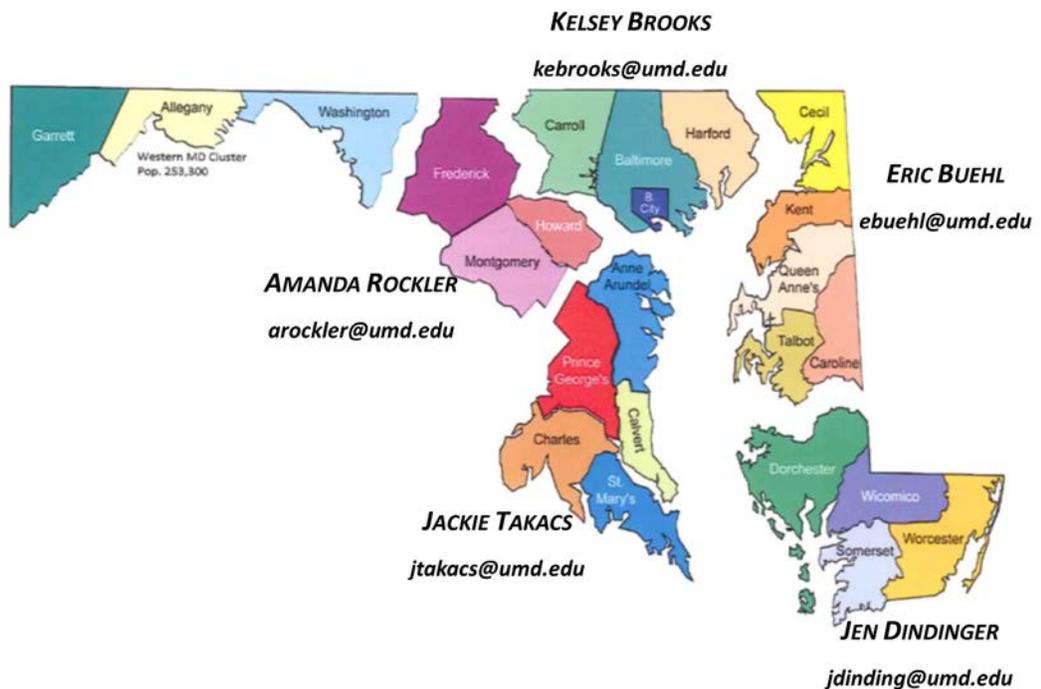
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Headwaters is a publication providing information and resources for Extension and watershed protection professionals. It is a joint production of the University of Maryland Extension and Maryland Sea Grant Program. If you have any comments, questions, or ideas for Headwaters, please contact the Editor: Eric Buehl ebuehl@umd.edu

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