Why be Water Smart you ask? Well, the James City Service Authority (JCSA) is the largest water utility in Virginia that is primarily reliant on ground water for its water supply system. If you live in James City County and are a customer of the JCSA, you are using water from the Chickahominy-Piney Point and Potomac Aquifers which are hundreds of feet below the earth’s surface. That water supply is limited and takes years to recharge through infiltration and percolation of rain water into the ground. During our peak season in the summer, water usage dramatically increases by 60-70% due to outdoor water use activities such as watering landscapes and irrigating lawns. Ground water is a finite resource and that’s why conserving water and being Water Smart is such an important component in preserving a limited natural resource.

Let's be Water Smart is a public/private water management initiative of the James City Service Authority. The goal of Let’s be Water Smart is to promote responsible water usage in James City County, VA.
Being “Water Smart” doesn’t mean living without water. It means being informed about the right ways to use water for both healthy plants and water efficiency.

The reality is that you can create a beautiful landscape while drastically reducing water consumption. In fact, 85% of turf and landscape problems are caused by OVER WATERING, which not only wastes water but costs you time and money to fix the problems.

By following a few simple guidelines, Water Smart gardeners create landscapes and gardens that can withstand whatever nature throws at them, especially the long, hot, and often dry summers we have in James City County.

As you will see in this guide, there are many ways to be Water Smart. Some of the tips are common sense approaches to reducing outdoor water use, others are unique Water Smart techniques. Our plant list contains many varieties of trees, shrubs, vines and groundcovers that are hardy, drought tolerant and perfect for your landscape. Already adapted to the region, native plants are especially suited to Water Smart landscaping, while many common annuals and non-native perennials thrive without extra watering.

But first, Know Your Day to Water! From May 1st to September 30th of every year, JCSA customers are under Ordinance No. 116A-34 to help the County manage water demand during the hot summer months. Under the ordinance, JCSA customers may use water outdoors for any purpose, at any time, on any day, as long as it is with a container or a hose with an automatic shutoff nozzle. The hose must be attended at all times. Any other method of outdoor water use, such as automatic irrigation systems, sprinklers, or hoses without automatic shutoff nozzles, must follow the Outdoor Water Use Schedule, which is based on street address.
Don’t Sweat the Heat!

During hot, dry spells, a healthy lawn can survive on just one inch of water per week (including rainfall).

Let’s be Water Smart About Turf & Soil

One of the quickest ways to be Water Smart and reduce water consumption is to reduce your turf area. Just watch today’s home and garden programs and you will see that this is also the trend in landscape style. Increasing groundcover, installing landscaped beds, mulching under trees, converting yard space to patios or decks, and adding shade trees are great and popular ways to reduce turf and add interest to your landscape.

But for many people, turf is still the centerpiece of a landscape, and even if it makes up a small part of your overall plan, keeping turf healthy can be a challenge.

Turf Selection

It’s important to select the right turf for your needs. Turf is tricky in James City County because we are in a transition zone between northern and southern climates. In other words, neither cool season nor warm season turf absolutely thrives here, and maintaining a healthy lawn takes work.
Most of the turf used in this area is Tall Fescue. Tall Fescues are cool season grasses which come under considerable stress during our usual hot, dry summers. They do not do well in full sun or under high traffic applications. Cool season grasses do best in some shade with limited foot traffic.

If your lawn is to be in full sun with lots of activity, consider warm season grasses like Bermuda or Zoysia. Just like the Fescues, there are new cultivators which can be established by the homeowner with seed. Prior to this, sod sprigs and plugs were the only establishment options available. Your local Extension Office can supply you with a recommended seed list for cool and warm season turf establishment.

Without irrigation during a hot, dry summer, cool season grasses will go dormant. Warm season grasses will go dormant in the winter months. In either case, well established and well maintained turf will recover fully after dormancy.

Annual Maintenance

The best way to ensure the health of cool season turf is an annual maintenance plan which calls for fall aeration and nitrogen fertilizer applications in September, October and November.

Warm season grasses perform best when aerated in April and fertilized during the summer growing season.

Maintenance schedules for both cool and warm season grasses are available through the Turf Love Nutrient Management Program at the JCC Virginia Cooperative Extension.

Watering

If you have a cool season lawn, you need to decide whether to allow the turf to go dormant in the summer. Cool
season grasses grow most vigorously during the cool, wet days of fall and spring. Without adequate water during the summer, cool season grasses go dormant, turning a light tan. If you allow the turf to go dormant, you must not fertilize or water, since this awakens it from dormancy.

If you want to keep your cool season turf green during a hot, dry summer, you will have to water. However, you should only water when the lawn is stressed from lack of water. A lawn under drought stress will turn bluish-gray, and if you walk the lawn, it will leave footprints and the grass will not bounce back.

During hot, dry spells, a healthy lawn will do nicely on just one inch of water per week but may turn tan. Deep but infrequent watering encourages deep roots, strengthening the plant, cooling the soil, and fortifying the grass against drought conditions. Shallow watering means shallow roots, which means weak plants. An easy way to determine how long it takes to apply one inch of water is to put a rain gauge or an empty can under your sprinkler and see how long it takes to deliver an inch.

Mowing

During the summer, never remove more than one third of the grass blade, so set your mower on the highest setting. For Tall Fescue, set the mower height at 2.5-3 inches. For Bermuda or Zoysia, set the mower height at 0.5-1.5 inches. Higher grass cools the soil, encourages deep roots and reduces heat stress. If grass is mowed too short, root growth slows down, making the grass more susceptible to heat and drought.

Leave clippings on the lawn as a natural way to add nutrients and organic matter. And remember to keep your mower blade sharp. A dull blade tears and weakens the grass.

Not Too Short

Give your turf a fighting chance in the hot summer months. Set your mower height at 2.5-3 inches for Tall Fescue and 0.5-1.5 inches for Bermuda or Zoysia to cool the soil and prevent weeds from germinating.
Weed Control

The best defense against weeds for well-established cool season turf is mowing it at a height of 2.5-3 inches. Tall turf shades out weeds. Crabgrass control is best accomplished by applying a pre-emergent herbicide in early March.

Warm season grasses provide a unique control opportunity in that a non-selective herbicide can be used after turf goes dormant.

Test Your Soil

Healthy plants start with healthy soil. Test the soil prior to establishment and every three years to determine the level of nutrients and pH (soil acidity/alkalinity). If the soil pH is too low (acidic) or too high (alkaline), the nutrients that are available in the soil or added by you cannot be utilized by the turf plant. Both cool and warm season grasses do best with a slightly low (acidic) pH of 6.5.

A soil test can provide information on the proper amount of lime and fertilizer to add to your lawn, garden and other areas of your landscape. When gardeners apply only as much lime and fertilizer as is needed and at the appropriate time, nutrient runoff into surface or groundwater is minimized, money is saved, and plant health is optimized.

Add Microbes

Fertilizing properly with an organic fertilizer or lightly top dressing with compost will increase helpful microbes that reduce thatch buildup, improve soil texture and increase chlorophyll, antioxidants, root mass and surface area. Combining this with other drought resistance measures will give you a healthier lawn with whatever challenges our climate brings on.
Let’s be Water Smart About Landscaping & Watering

Water Smart landscaping creates landscapes and gardens that can withstand whatever nature throws at them, especially the long, hot, and often dry summers we have in James City County. But creating a Water Smart landscape doesn’t mean digging everything up and starting from scratch. Here are some tips to help you plan for changes, correct problems and better care for your plants.

Follow Nature’s Lead

If you want your landscape to thrive in tough times, plant with nature instead of against her. Use the natural site conditions (drainage, light, soil conditions, etc.) and select plants that thrive in those conditions without much extra care.

Right Plant, Right Place

Putting the right plant in the right place will reduce water needs. Consider drainage, light and soil conditions before you plant.
Mulch Mulch Mulch

Mulching is one of the best things you can do to conserve moisture and improve plant health. Mulch insulates plant roots from summer heat and winter cold, controls weeds that compete for moisture and nutrients, and increases soil permeability.

Always mulch two to three inches deep under trees and extend the mulch two to three times beyond the leaf canopy to cover the roots. Keep the mulch several inches away from the tree trunk to prevent insect infestation and bark decay.

Fine textured organic mulches like pine straw, pine bark, mini-nuggets and shredded hardwood are best. They hold moisture, don't mat, and allow nutrients, oxygen and water to reach plant roots. Avoid inorganic mulches like gravel, rocks, and marble which absorb and radiate heat.

Islands of unplanted organic mulch designed to blend with the landscape are an economic way to retrofit an existing landscape to make it more water efficient while reducing maintenance.

Increase Groundcover

Sometimes unsuitable growing conditions prevent turf grass from establishing and groundcovers may provide solutions to a landscaping challenge. By reducing your turf, you also reduce maintenance and water demands. Groundcover plants, when properly taken care of, provide dense soil cover, retard weed growth, and prevent soil erosion. There is a broad array of colors and textures to choose from. A few plants that do well in our area include, Creeping Juniper, Liriope, Phlox and Sedum.

Right Plant, Right Place

Simply putting the right plant in the right place can reduce water needs and improve your overall landscaping success.
Consider the purpose the plants will serve. Are you improving your foundation, adding color or shade, or planting a windbreak? Do you want to use perennials or annuals, and how much time are you willing to spend on maintenance?

Learn which plants will meet your needs and take into account each plant's hardiness, light and water needs, disease and insect resistance, pruning requirements, and mature size.

Drought tolerant plants should be used in dry spots, windy or exposed areas, on berms, and against unshaded south or west walls of buildings. Plants adapted to wet soils should be used in low spots and areas with poor drainage.

Group by Water Needs

To reduce watering and maintenance, group higher water needs plants together, and place them in a spot that is naturally moist like a low-lying area or at the bottom of a hill. Group together drought tolerant plants and ornamental grasses that require little water.

Add Shade

Shade from trees or structures can cool the landscape by as much as 20°F by reducing heat buildup and water loss. For example, a mature oak tree can dissipate as much heat as four home central air conditioners running 24 hours per day. Shade also reduces heat buildup from hard surfaces like driveways, walks and walls, so shade these surfaces with trees and large shrubs.

Design an Oasis

Use the "oasis" approach to achieve a landscape that is both natural and visually impressive. Consolidate water hungry, high maintenance, and showy plants in high impact
areas like entrances, primary views, patios, and courtyards. Use lower maintenance plants in areas that get less traffic or are less visible.

**Hardscape**

Hardscaping with permeable material allows water to penetrate the ground underneath, and can be used for driveways, walkways and patios. For example, build a path with crushed gravel instead of bricks, or use permeable pavers instead of concrete for a new patio or driveway.

**Create a Rock Garden**

Adding rock features to your landscape reduces turf and creates interest. Sun loving perennials, annuals, grasses and herbs like rosemary, oregano, thyme and lavender are natural rock garden choices.

**Add Ornamental Grasses**

Ornamental and native grasses are an ideal addition to the Water Smart landscape. Often overlooked, they add texture, color and sound, and once established they are practically indestructible and require little attention. Most do well in full sun and dry soil.

Grasses can be used in the border, along pathways, in containers, among rocks, in naturalized areas, or in the foundation. Their foliage and blooms are beautiful in late summer and fall and add winter interest when the rest of the garden is dormant.

Switchgrass (Pancium virgatum), comes in a wide variety of sizes, shapes and colors. Varieties such as “Dallas Blue” and “Cloud Nine” offer a blue hue while “Hanse Herms” would satisfy your red and purple color palette.
Big bluestem (*Andropogon gerardii*) is also a wonderful addition to borders and naturalized areas.

**Go Native**

Virginia is home to countless native plants that are naturally adapted to the area's conditions. Once established, they require little care and add color and variety to the landscape.

According to the Department of Conservation and Recreation (DCR), "native species are those that occur in the region in which they evolved. Native plants possess certain traits that make them uniquely adapted to local conditions, providing a practical and ecologically valuable alternative for landscaping. In addition, native plants can match the finest cultivated plants in beauty, while often surpassing non-natives in ruggedness and resistance to drought, insects and disease."

For more information call the Virginia Native Plant Society at 540-837-1600 or log onto their website at www.vnps.org.

**A Growing Problem**

Alien invasive plants, also known as exotic or non-native, are species intentionally or accidentally introduced into a region in which they did not evolve. They escape cultivation and infest lawns as weeds, displace native plant species, reduce wildlife habitat, and alter ecosystems.

Even common plants such as English Ivy (*Hedera helix*), Japanese Barberry (*Berberis thunbergii*) and Purple loosestrife (*Lythrum salicaria*) appear on invasive species lists as aggressive invaders. Invasive plant websites contain information on invasive plant identification, their impact on native species, their control and native alternative plants suggestions. Visit the Plant Conservation Alliance website at

Hire a Designer

Before you design a water smart landscape or retrofit your current landscape, consider using a professional landscape designer. Here is some helpful advice reprinted with permission from "Landscape Designers: Professional Help For Your Garden" by Carol Pilgrim and Karen Kelly, Certified Landscape Designers, V.S.L.D.

"A good landscape designer will take into account tastes, lifestyle, and the amount of time you have to maintain a garden. They will gather information from you, assess existing planting and site conditions, and recommend a course of action.

The landscape design can range from a simple sketch on site to a fully developed master plan. If you plan to contract the work out or complete the garden over a number of seasons, a master plan is the best way to go. This is a scale drawing that can be used by your contractors to help install and price their work. The biggest advantage of a master plan is that, as each phase is completed, it will relate to the other sections of the overall design. Once you have completed all the phases, you will have a cohesive whole.

Landscape design services vary. Some designers only draw the garden plan. Homeowners can then install the work themselves or have contractors bid on the job. Other designers may offer landscape contracting services. They would be able to provide installation of the project in addition to the design."

Watering and Irrigation

So you have the right plants in the right place, and less of
your landscape is turf. You have rain gauges monitoring your water needs and you've even had your soil tested. So when it comes time to turn on your sprinklers or water your garden, don't feel guilty - even Water Smart gardeners need to water sometimes.

But remember, 85% of turf and landscape problems are caused by OVER WATERING. So, here are 10 simple guidelines to consider before you let the water flow.

1. Know Your Day to Water!

2. Healthy turf needs no more than one inch of water per week to survive but it may turn tan.

3. Water early in the morning, not in the evening or in the heat of the day, to reduce evaporation and disease.

4. Water infrequently, deeply and slowly to encourage deep root growth and reduce runoff. For example: 15 minutes on, 15 minutes off until 1 inch of water is applied.

5. Use drip irrigation or soaker hoses in landscaped beds to deliver water right to the roots.

6. Use a rain gauge set at 1/4 inch with your automatic irrigation system to override the system when it rains.

7. If you water trees and shrubs by hand, water the roots under the drip line, which extends as far as the leaf canopy. Watering the foliage wastes water and promotes disease.

8. Use a rain barrel to catch and store water for irrigation.

9. Water your landscape, not your driveway or sidewalks.

10. Use common sense and be Water Smart.
Let’s be Water Smart

Lawn & Garden Calendar

Here is a simple calendar to help you stay in tune with your surroundings and maintain your landscape throughout the year.

January
Take a cue from nature and relax.
What's in bloom? Nandina and holly are in fruit.

February
Apply pre-emergent weed control. Prune fruit trees and crape myrtles while they are still dormant. Remove diseased, dead, and broken wood, and limbs that rub against each other. Remove extra vertical shoots growing off the main stem.

'Tis the Season
Throughout the year, knowing what to do and when to do it is helpful in planning and maintaining your Water Smart landscape.

Thank you to Kathy Van Mullekom, Daily Press Gardening and Home Columnist, for much of the information in this calendar.
Prune evergreen trees and shrubs. Begin preparing new beds and rejuvenating old beds by working in organic matter.

What's in bloom? Witch hazel, winter hazel, and winter sweet.

March

Apply pre-emergent weed control. Mulch trees and shrubs to conserve moisture during summer. Mow lawns on the highest setting to conserve moisture and shade weed seeds to prevent germination. Soil test fescue lawns to determine nutritional needs in preparation for fall maintenance. Feed warm season lawns. Prune boxwood, nandina, ligustrum, pittosporum, butterfly bush, camellia sasanqua, euonymus, cotoneaster, southern wax myrtle, hydrangea, and rose-of-sharon.

What's in bloom? Crocus, daffodil, snowdrop, glory-of-the-snow, winter aconite, siberian squill, grape hyacinth, and forsythia.

April

Lightly fertilize trees and shrubs (heavy fall fertilization is best). Mow evergreen groundcovers on highest setting. Fertilize warm season turf. Plant new perennials and pull mulch back from emerging perennials. Top dress lightly with new mulch. Prune azalea, forsythia and other spring-flowering plants after they bloom. Trim ornamental grasses such as pampas grass.

What's in bloom? Daffodil, tulip, iris, azalea, dogwood, redbud, flowering fruit trees, and forsythia.

May (JCSA Outdoor Water Use Regulations Begin for the Year)

Mulch trees and shrubs to conserve moisture during summer. Attract beneficial insects to your garden by planting...
Dill, lavender, fennel, yarrow, tansy, parsley and sunflowers. Mow lawns on the highest setting to conserve moisture and shade weed seeds to prevent germination. Feed warm season turf. Prune boxwood, magnolia, maple, redbud, serviceberry, crabapple, Japanese camellia, cherry laurel, daphne, euonymus, winter jasmine, Indian hawthorn, pieris, ligustrum, spirea, viburnum, pussy willow, witch hazel, yew and arborvitae.

What's in bloom? Spring and summer flowering annuals and perennials.

June

Mow fescue lawns on the highest setting to conserve moisture and shade weed seeds to prevent germination. Watch for brown patch fungus in lawns - use fungicide if severe following label recommendations (consult with Extension or garden center). Prune flowering almond, aucuba, azalea, barberry, beautybush, boxwood, Japanese camellia, cherry laurel, daphne, deutzia, forsythia, evergreen holly, honeysuckle, hydrangea, Indian hawthorn, winter jasmine, kerria, lilac, mahonia, mock orange, mountain laurel, pieris, mugo pine, ligustrum, pyracantha, quince, rhododendron, serviceberry, spring blooming spirea, viburnum, weigela, pussy willow, witch hazel, yew, arborvitae, deodar cedar, hemlock, pine and spruce.

What's in bloom? Summer flowering annuals, perennials and shrubs, crape myrtle.

July

What to do: Keep container plants watered on hot days. Fertilize warm season grass. Watch for brown patch fungus in lawns; spray daily with fungicide if severe. Consult with
extension or garden center. Use mulching mower so moisture- and nitrogen-rich grass clippings decompose and nourish lawn. Lightly trim scraggly annuals and feed for flush of new growth and blooms.

What's in bloom? Summer flowering annuals, perennials and shrubs; crape myrtles.

August

What to do: Rid fescue lawn of weeds in preparation for fall seeding and fertilization. Do soil test on fescue lawn area to determine nutritional needs for fall maintenance. Line up lawn aeration before fall seeding. Prepare beds for fall plantings of shrubs, trees and perennials. Fall is the best time to transplant and install new shrubs and trees because roots can get established before summer's heat arrives again.

What's in bloom? Summer flowering annuals, perennials and shrubs; crape myrtles; ornamental grasses.

September

What to do: Aerate and thatch cool season turf in preparation for reseeding.

Apply lime. Sow cool-season fescue seeds Sept. 15-Oct. 15. Fall plantings of trees, shrubs and perennials are ideal because roots establish over winter before next summer's heat. Prepare large raised planting beds now with topsoil, coarse sand and organic matter. Prune sumac, beech, honeylocust, linden and bald cypress. Avoid pruning other shrubs or growth may not harden off before winter cold.

What's in bloom? Late flowering annuals and perennials, ornamental grasses, crape myrtle.
October (JC&V Outdoor Water Use Regulations End for the Year)

What to do: Fertilize fescue lawns applying 1-1/2 pounds of actual nitrogen, phosphorus and potash per 1,000 square feet. Example: 15 lbs. of 10-10-10 or equivalent of other fertilizers per 1,000 square feet, allowing at least 30 days between first and second application. Do your winter weed control on fescue grass. New grass should be mowed at least twice before herbicide treatment, says Virginia Cooperative Extension. Overseed Bermuda grass with annual ryegrass, if desired, at 5 lbs. per 1,000 square feet. Zoysia does not like overseeding. Install new trees and shrubs; transplant ones that need to be moved. Mulch, mulch, mulch everything for winter protection and landscape beauty. Mulch grass and fallen leaves. Use leaves as a base mulch and cover with nicer mulch. Prune elm, golden rain tree, honeylocust, linden, poplar, sophora, sumac, sourwood and potentilla.

What's in bloom? Ornamental grasses.

November

What to do: Fertilize fescue grass using 1 pound actual nitrogen per 1,000 square feet. Do winter weed control on Bermuda and Zoysia. Prune alder, goldenrain tree, sophora, sourwood, birch, elm, maple, oak, willow and poplar.

What's in bloom? Chrysanthemum, aster, nandina, holly, chokeberry and beautyberry are in fruit.

December

What to do: If a soil test indicates your soil needs lime, winter is the time to let the mineral do its work. Lime sweetens soil or combats soil acidity and supplies calcium for plant growth. An application to bring the soil pH to 6.5 should last four to six years. Lightly prune evergreens for holiday
decorations. Water evergreens during winter when there is no rainfall.

What's in bloom? Nandina, holly, chokeberry and beautyberry are in fruit.
Let's be Water Smart

The Right Plants

When selecting Water Smart plants, consider the purpose the plants will serve. Are you improving your foundation landscape, adding shade, creating a windbreak, or adding color? Do you want perennials or annuals? How much time can you devote to maintenance? Take into account each plant's hardiness, light requirements, resistance to disease and insects, pruning requirements, mature size, and invasiveness, and learn which species, varieties, and cultivars meet your needs.

The following is a list of Water Smart plants for James City County. Each is listed because it is water efficient by nature or native to the region, and should thrive under natural conditions.

If you have any questions about these plants please do not hesitate to talk to your local Water Smart nursery or landscaper. They are committed to helping you be Water Smart.
**Common Name** | **Botanical Name**
---|---
Acuba | *Acuba japonica*
American Arborvitae | *Thuja occidentalis*
American Beautyberry | *Callicarpa americana*
American Boxwood | *Buxus sempervirons*
Barberry | *Berberis thunbergii*
Black Chokeberry | *Aronia melanocarpa*
Blackhaw Viburnum | *Viburnum prunifolium*
Chinese Holly | *Ilex cornuta*
Chokecherry | *Prunus virginiana*
Deutzia | *Deutzia scaba; D. gracilis*
Eastern Arborvitae | *Thuja orientalis*
English Boxwood | *Buxus sempervirons ‘Suffruticosa’*
Euonymus | *Euonymus japonica*
False Arborvitae | *Hiba arborvitae*
Firethorn | *Pyracantha (several species)*
Flowering Quince | *Chaenomeles japonica*
Forsythia | *Forsythia*
Glossy Abelia | *Abelia x grandiflora*
Hawthorne | *Rhaphiolepsis indica*
Heavenly Bamboo | *Nandina domestica*
Hummingbird Summersweet | *Clethra alnifolia*
Inkberry | *Ilex glabra*
Japanese Holly | *Ilex crenata*
Japanese Honeysuckle | *Lonicera japonica*
Juniper | *Juniperis (many species)*
Littleleaf Boxwood | *Buxus microphylla*
Mahonia | *Mahonia bealei; m. aquifolia*
Mountain Laurel | *Kalmia latifolia*
Possumhaw | *Ilex decidua*
Privet | *Ligustrum (several species)*
Red Chokeberry | *Aronia arbutifolia*
Scotch Broom | *Cytisus scoparius*
Southern Arrowwood | *Viburnum dentatum*
Southern Wax Myrtle | *Myrica cerifera*
Spirea | *Spirea (several species)*
Virginia Sweetspire | *Itea virginica*
Western Arborvitae | *Thuja plicata*
Winterberry | *Ilex verticillata*
Witch Hazel | *Hammelis virginiana*
Yucca | *Yucca (several species)*
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<td>Stachys byzantina</td>
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<tr>
<td>Chaste Tree</td>
<td>Vitex agnus-castus</td>
</tr>
<tr>
<td>Chinese Dogwood</td>
<td>Cornus kousa</td>
</tr>
<tr>
<td>Crabapple</td>
<td>Malus (many species)</td>
</tr>
<tr>
<td>Crape Myrtle</td>
<td>Lagerstroemia indica</td>
</tr>
<tr>
<td>Cypress</td>
<td>Cypressa (many species)</td>
</tr>
<tr>
<td>Eastern Redbud</td>
<td>Cercis canadensis</td>
</tr>
<tr>
<td>Eastern Redcedar</td>
<td>Juniperus virginiana</td>
</tr>
<tr>
<td>Foster's Holly</td>
<td>Ilex attenuata 'Fosteri'</td>
</tr>
<tr>
<td>Ginko</td>
<td>Gingko biloba</td>
</tr>
<tr>
<td>Japanese Flowering Cherry</td>
<td>Prunus serrulata</td>
</tr>
<tr>
<td>Magnolia</td>
<td>Magnolia (several species)</td>
</tr>
<tr>
<td>Maple</td>
<td>Acer (many species)</td>
</tr>
<tr>
<td>Paw Paw</td>
<td>Asimina triloba</td>
</tr>
<tr>
<td>Persimmon</td>
<td>Diospyros</td>
</tr>
<tr>
<td>Russian Olive</td>
<td>Elaeagnus angustifolia</td>
</tr>
<tr>
<td>Sassafras</td>
<td>Sassafras albidum</td>
</tr>
<tr>
<td>Serviceberry</td>
<td>Amelanchier arborea</td>
</tr>
<tr>
<td>Smooth Sumac</td>
<td>Rhus glabra</td>
</tr>
<tr>
<td>Staghorn Sumac</td>
<td>Rhus typhina</td>
</tr>
<tr>
<td>White Fringe Tree</td>
<td>Chionanthus virginicus</td>
</tr>
<tr>
<td>White Mulberry</td>
<td>Morus alba</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Botanical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Bluestem</td>
<td>Andropogon gerardii</td>
</tr>
<tr>
<td>Blue Fescue</td>
<td>Festuca glauca</td>
</tr>
<tr>
<td>Indian Grass</td>
<td>Sorghastrum nutans</td>
</tr>
<tr>
<td>Little Bluestem</td>
<td>Schizachyrium scoparium</td>
</tr>
<tr>
<td>Pampas Grass</td>
<td>Cortaderia selloana</td>
</tr>
<tr>
<td>Switch Grass</td>
<td>Panicum virgatum</td>
</tr>
</tbody>
</table>
Let’s be Water Smart

Sources & Resources

Written by

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Edited & Designed by
Rubin Communications Group

Special thanks to our Let’s be Water Smart Partners who contributed their expertise:

Tom Belden, Belden Landscapes
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Lisa Meddin, Harmony Design
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Sassia Niederste-Hollenberg, ServiceMaster LawnCare of Williamsburg
Kathy Van Mullekom, Daily Press Gardening and Home Columnist
Bob Winters & Debbie Green, Turf Love Nutrient Management Program

Sources

"Landscape Designers: Professional Help For Your Garden" by Carol Pilgrim and Karen Kelly, Certified Landscape Designers, V.S.L.D.
"Xeriscape, A Guide to Developing a Water-Wise Landscape," Georgia Water Wise Council

Contact Us

Online:
www.bewatersmart.org

JCSA
P.O. Box 8784
Williamsburg, VA
23187-8784
757-253-6859
Some Water Smart Resources

For more information on selection, planting, cultural practices, environmental quality and educational publications, contact your local Extension Office.

**Virginia Cooperative Extension**
3127 Forge Road
P.O. Box 69
Toano, VA  23168-0069
757-564-2170
www.ext.vt.edu

If you want to learn more about horticulture through training and volunteer work, ask about becoming a Master Gardener. Visit the James City County/Williamsburg Master Gardener Association website at www.jccwmg.org.

To learn how to produce healthy turf and receive a residential turf analysis, contact Turf Love through the James City County Extension Office or Master Gardener website.

**Alliance for the Chesapeake Bay (Bayscapes)**
www.acb-online.org

**James City County**
www.jccEgov.com

**Hampton Roads Water Efficiency Team (HR WET)**
www.hrwet.org

**Virginia Department of Forestry**
www.dof.virginia.gov

**Virginia Society of Landscape Designers**
www.vsld.org

For more helpful links, visit www.bewatersmart.org.
Recommended Books

**The Story of Gardening** by Penelope Hobhouse
**Garden Home** by P. Allen Smith
**Architecture in the Garden** by James Van Sweden
**Gardening with Nature** by James Van Sweden
**The American Woodland Garden** by Rick Darke
**The Not So Big House** by Sarah Susanka
**Redesigning the American Lawn** by F. Herbert Bormann

Let’s be Water Smart

Glossary

**Aquifer** - A formation of porous rock that holds water.

**BMP** - A Best Management Practice is a structural or non-structural stormwater practice that minimizes the impacts of land use changes on surface or groundwater systems.

**Drought** - A duration of rainfall deficit.

**Infiltration** - When a portion of rain, hail, or snow lands on the ground and enters the soil.

**Peak Season** - The term used by water utilities to define their highest times of water consumption.

**Percolation** - The process of water moving past the root zone after infiltration.

**Rain Gauge** - A device that measures rainfall.


**Recharge** - The process of refilling aquifers through infiltration and percolation of rain water into the ground.

**Water Conservation** - Measures intended to improve the efficiency of water use and reduce waste.
Let’s be Water Smart

Your Notes