



LOVE YOUR  **LOCAL LAWN**

Native Plant and Water Conservation Resource Guide





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WATER CONSERVATION *AND* **WHY IT IS IMPORTANT**

Every year, Texas experiences record-high temperatures and drought conditions. Communities need to adopt water conservation principles, like planting native and responsible watering, to adapt our lawns and lifestyles to this reality. During the hotter months, 60 to 70 percent of our treated water goes toward outdoor water use -- primarily lawn irrigation -- leaving a quarter for our everyday uses. It is time to make our landscapes more water friendly so we can conserve our available water.

The City of Georgetown worked with our area partners to compile this resource guide to help residents identify landscaping and irrigation practices and native species that can lead to beautiful, healthy, thriving lawns, even in the hottest months of our summers. The City offers rebates for some of these practices.

More information is available at water.georgetown.org.

WaterSense Facts

The City of Georgetown Water Utility is a proud partner of WaterSense. Find more information at epa.gov/watersense

In the United States, 9 billion gallons of treated water every day goes toward residential outdoor water use. This increases in the summer.

Homeowners use 30-60 percent of their water outdoors. About half of that is wasted due to inefficient watering methods, including over watering.

Homes with automatic irrigation systems can use about 50 percent more water outdoors. Watering an average-sized lawn in the United States for 20 minutes, every day for seven days is equal to:

- **Running the shower constantly for four days.**
- **Taking more than 800 showers.**
- **The amount of water the average family needs to take one year's worth of showers.**

Forty out of 50 state water managers expect water shortages under average conditions in some portion of their states over the next decade, according to a 2014 Government Accountability Report.



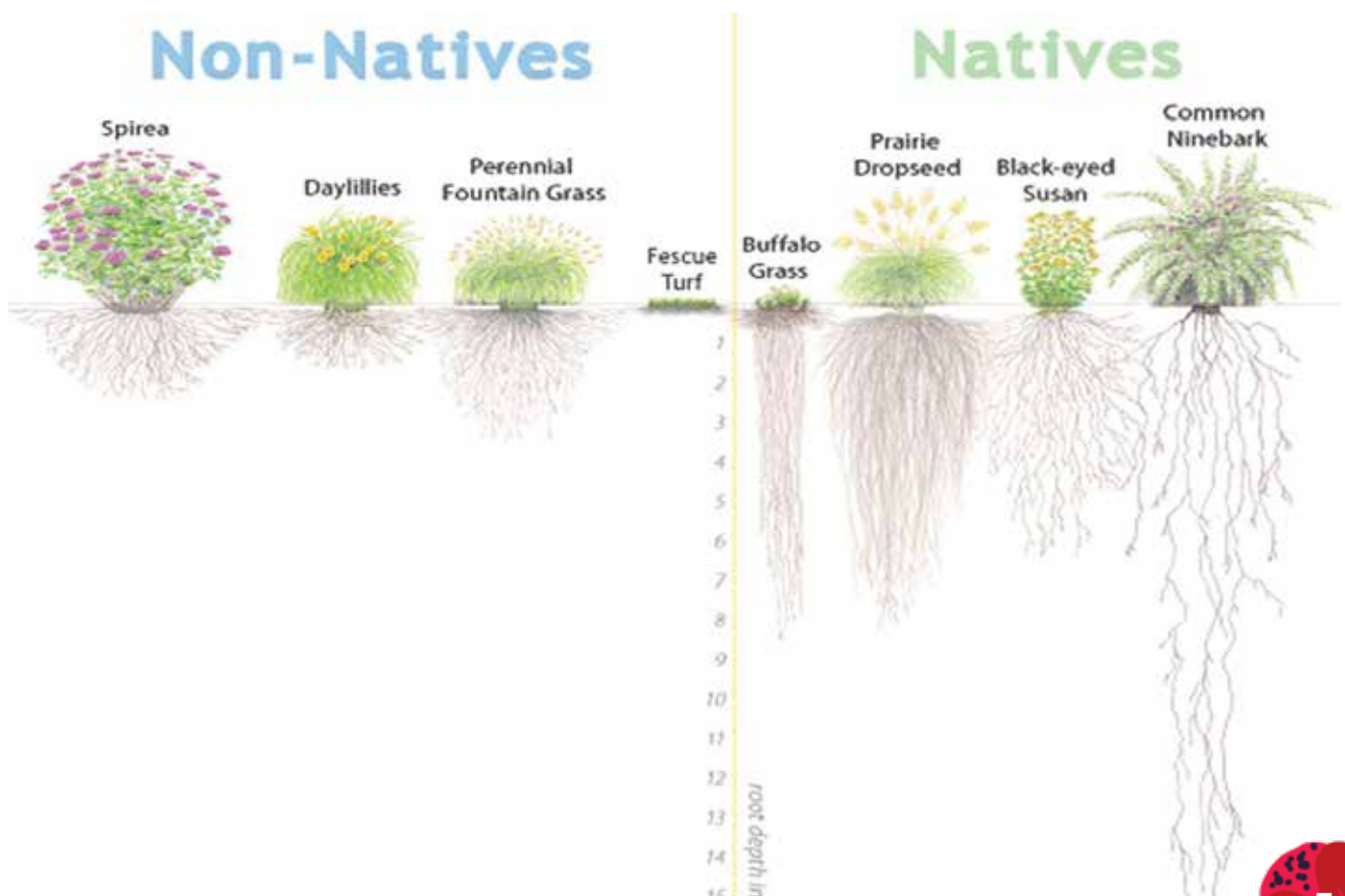
A background image of numerous small, bright pink flowers with green foliage, arranged in a dense, bushy pattern. The flowers have a tubular shape with a slightly flared top. A thin green border frames the central text area.

WHY PLANT **NATIVE?**

Native plants naturally appear in regions after adapting over thousands of years. The plants learn to acclimate to the local weather, soil conditions, and to other native species. They require little to no maintenance and attract local pollinators. Native plants require up to 80 percent less water than non-native plants due to an efficient root system. By planting native, you can create a beautiful and sustainable yard that conserves water and will survive during Texas droughts.

Native Plant Highlights

- Requires 80 percent less water
- Efficient root system
- Supports pollinators
- Reduces heat island effect
- Reduces water runoff
- Low maintenance





Steps to Native Planting

Yard Environment:

Map out the sunny and shaded areas, and be specific: partial sun, full shade, etc. This will help determine what type of plants to select for those areas.

Select Your Plants:

Consider the bloom color, time of year, height of the plant, shape of the plant, and size at maturity. You will want to design your plant beds so plants with similar watering requirements are grouped together. Note the animals frequently found in your neighborhood such as deer or rabbits. There are many varieties of plants available that are designed to deter animals.

Prep the Soil:

Clear away any weeds and debris from your planting area. Dig a hole two times larger than the ball/roots of the plant. Add 2 inches of compost with a small amount of soil placed on top. Place the plant in the hole and backfill the hole until it is even with the surrounding soil.

Mulch:

Mulching the surrounding area is key in maintaining moisture, preventing erosion and weeds, and protecting the roots.

Steps to Landscape Design

1

Measure your property size and available area.

Map out your property lines on paper.
Try to scale your design to the best of your ability.

2

Map your yard and functional areas.

Sketch the existing plants, walkways, and any restrictive structures. Include pet areas, play areas, or outdoor living areas in your design. Do not forget to include existing plants you plan to use in your new landscape. Note the topography of the property. Drainage will be important in your design.

3

Fill in the empty spaces with local lawn details.

What areas will be plant beds?
Any additional walking paths?
Additional trees?
Rain garden?
Where will you install rain barrels?

4

Select your plants.

You should base your plant selection on plant characteristics including height, spread, water requirements, and sun requirements. Cluster plants that require the same amount of water together. Draw the plant selections at full maturity to ensure you have enough space in your design.





Questions To Ask Yourself When Planning Your Landscape

- Are you able to convert turf to a more water conservation friendly landscape?
- How much rainfall do you receive?
- What are the characteristics of the soils?
- Do you have any HOA restrictions?
- What is important to you in your landscape?
- Do you have an adequate water supply to deliver to your plants?
- Where are your yard's areas of function? (play spot, outdoor living, grilling)

Establishing New Plants

Although native plants require less water, you will need to water by hand until the plants established. The water requirements will significantly decrease over time due to these plants being adapted to the Central Texas climate. Water the plants upon installation by saturating the soil around the plant. For the next few weeks, water daily unless there is a rain event. You can skip watering if the ground has been saturated with rain. Once you start to see new growth, you can begin to cut back on watering. Use a soil moisture meter to ensure the top 3 inches of soil is moist during establishment. If the soil is dry around your plants or the plant is showing signs of stress, it may be time to hand water your native plants.

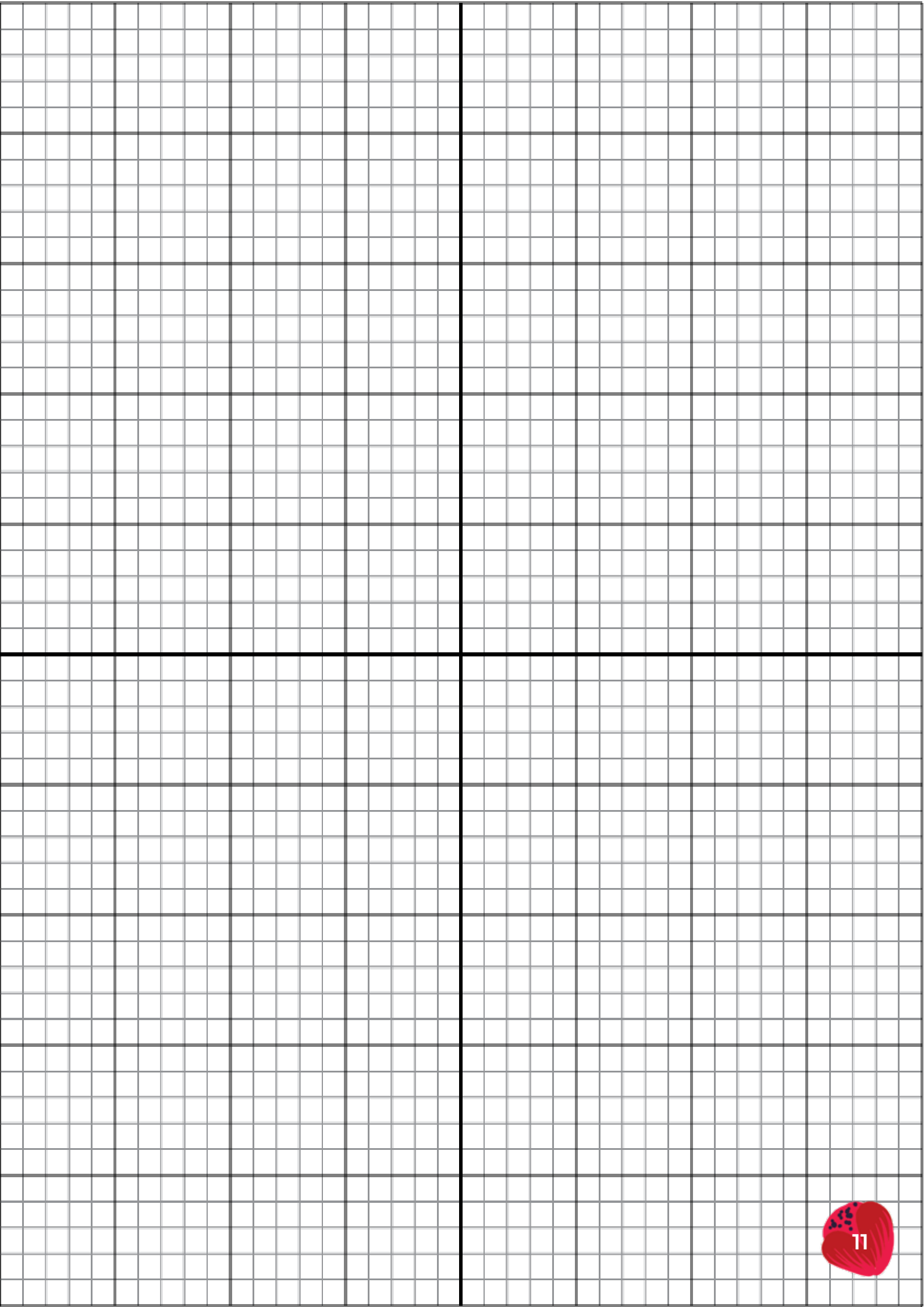
How Often Should You Water Native Plants?

Your plant watering schedule will depend on sun exposure, soil type, and the time of year. Plants that are receiving 6+ hours of sun will require more water than a plant placed in the shade, because water will evaporate faster in the sun. Sandy soils will allow water to infiltrate quicker but dry out faster than clay soils that hold moisture. **Remember: Native plants do not need as much water as non-native species.** Water your plants when they need it by looking for signs for stress including dry soil, wilting, or color change.



A sheet of graph paper with a grid of small squares. A thick green horizontal banner is positioned at the bottom of the page, containing white text. The grid is divided into four quadrants by a vertical and a horizontal line that intersect at the center.

MAP YOUR LOCAL LAWN HERE



NATIVE PLANT LIST: SHADE TREES

NAME	LIGHT	SIZE	SOIL CONDITION
Lacey Oak Quercus laceyi	Part Shade	36-72 ft	Dry
Bur Oak Quercus macrocarpa	Part Shade Sun/Part Shade	72-100 ft	Dry, Moist, Wet
Chinquapin Oak Quercus muehlenbergii	Sun/Part Shade	100 ft	Dry
Shumard Oak Quercus shumardii	Sun/Part Shade	50-90 ft	Dry, Moist
Cedar Elm Ulmus crassifolia	Part Sun	36-72 ft	Moist

	COLOR/ FEATURE	BLOOMING SEASON	EVERGREEN/ DECIDUOUS	COMMENTS
	Yellow flowers	March-May	Deciduous	Great for small yards
	Yellow, Green, Brown	March-May	Deciduous	Fast growing, very large white oak
	Yellow, Green, Brown	March-May	Deciduous	Fast growing, medium to large white oak
	White, Green	March-May	Deciduous	Attracts pollina- tors, birds, and small mammals
	Green	July-October	Deciduous	Provides cover/ nesting, cat- terpillars, and seeds for birds; Butterfly larval host



NATIVE PLANT LIST: ORNAMENTAL SMALL TREES

NAME	LIGHT	SIZE	SOIL CONDITION
Texas Redbud Cercis canadensis var. texensis	Sun/Part Sun	12-36 ft	Dry
Texas Persimmon Diospyros texana	Sun/Part Sun	12-36 ft	Dry
Goldenball Leadtree Leucaena retusa	Part Sun	25 ft	Dry
Mexican Plum Prunus mexicana	Sun/Part Sun	12-36 ft	Dry, Moist
Anacacho Plum Bauhinia lunarioides	Part Sun	6-12 ft	Dry

	COLOR/ FEATURE	BLOOMING SEASON	EVERGREEN/ DECIDUOUS	COMMENTS
	White, Pink, Purple	March-April	Deciduous	Attracts pollina- tor insects; Larval Host for Henry's Elfin butterfly
	White, Green	March-April	Deciduous	Attracts pollina- tor insects and fruit birds/mam- mals
	Yellow	April-October	Deciduous	Attracts pollinators
	White, Pink	February-April	Deciduous	Nectar for pol- linator insects; Fruit for mam- mals; Edible plums
	White, Pink	March-May	Deciduous	Attracts native pollinator in- sects



NATIVE PLANT LIST: SHRUBS

NAME	LIGHT	SIZE	SOIL CONDITION
White Mistflower <i>Ageratina havanensis</i>	Sun/ Part Sun	3-6 ft	Dry
Flame Acanthus <i>Anisacanthus quadrifidus</i> var. <i>wrightii</i>	Sun	3-5 ft	Dry, Moist
Texas Lantana <i>Lantana urticoides</i>	Sun	3-6 ft	Dry
Texas Sage Cenizo <i>Leucophyllum frutescens</i>	Sun/Part Sun	3-6 ft	Dry
Agarita <i>Mahonia trifoliolata</i>	Sun/ Part Sun	36-72 ft	Moist

	COLOR/ FEATURE	BLOOMING SEASON	EVERGREEN/ DECIDUOUS	COMMENTS
	White, Pink	October- November	Deciduous	Fragrant white blooms, essential in polli- nator gardens
	Red, Orange	June- October	Deciduous	May tem- porarily lose leaves during a dry spell but drought tolerant
	Red, Or- ange, Yellow	April- October	Deciduous	Stems become thorny with age
	White, Pink, Purple, Violet	January- December	Evergreen	Variety of heights with green or sil- ver-gray foliage
	Yellow	February- April	Evergreen	Red berries, provides cover/ nesting and seeds for birds



NATIVE PLANT LIST: SHRUBS

NAME	LIGHT	SIZE	SOIL CONDITION
Dwarf Palmetto Sabal minor	Sun/Part Sun/Shade	5-8 ft	Dry, Moist
Yellow Bells, Orange Bells, Esperanza Tecoma stans	Sun/ Part Sun	4-6 ft	Dry

NATIVE PLANT LIST: PERENNIALS

Zizotes Asclepias oeno- theroids	Sun	1-3 ft	Dry
Antelope Horns Asclepias aspe- rula	Sun	1-3 ft	Dry, Moist



	COLOR/ FEATURE	BLOOMING SEASON	EVERGREEN/ DECIDUOUS	COMMENTS
	White	May-June	Evergreen	Long clusters of black fruit, fan-shaped palm leaves, typically no trunks
	Yellow, Orange	June- October	Deciduous	Available in a variety of sizes, provides nectar for hummingbirds and butterflies
	Green	March-October	Evergreen	Great for open areas Toxic to pets
	White, Green	March-October	Deciduous	Rocky soils, pastures Toxic to pets



NATIVE PLANT LIST: PERENNIALS

NAME	LIGHT	SIZE	SOIL CONDITION
Green Milk- weed <i>Asclepias viridis</i>	Sun	1-3 ft	Moist
Chile Pequin <i>Capsicum ann- uum</i>	Sun/Part Sun/ Shade	1-3 ft	Moist
Damianita Daisy <i>Chrysactinia Mexicana</i>	Sun	1-3 ft	Dry
Turk's Cap <i>Malvaviscus arboreus var. drummondii</i>	Sun/Part Sun/ Shade	3-6 ft	Dry,Moist
Blackfoot Daisy <i>Melampodium leucanthum</i>	Sun/Part Sun	1-3 ft	Dry

	COLOR/ FEATURE	BLOOMING SEASON	EVERGREEN/ DECIDUOUS	COMMENTS
	White, Yellow, Green, Purple	April- September	Deciduous	Great for open areas Toxic to pets
	White	May-October	Deciduous	Nectar source for birds, edible
	Yellow	April-September	Evergreen	Great for hillside cover
	White, Red, Pink	May-November	Deciduous	Prefers shady sites, deer may eat flowers
	White, Yellow	March-November	Deciduous	No fertilizer or extra water requirement



NATIVE PLANT LIST: PERENNIALS

NAME	LIGHT	SIZE	SOIL CONDITION
Rock Rose <i>Pavonia lasiop- etala</i>	Sun/Part Sun	3-6 ft	Dry
Scarlet Sage <i>Salvia coccinea</i>	Sun/Part Sun, Shade	1-3 ft	Dry, Moist
Mealy Blue Sage <i>Salvia farinacea ssp</i>	Sun	1-3 ft	Moist
Velvet Leaf Senna <i>Senna lind- heimeriana</i>	Sun/Part Sun	3-6 ft	Dry, Moist



	COLOR/ FEATURE	BLOOMING SEASON	EVERGREEN/ DECIDUOUS	COMMENTS
	Pink, Yellow	April- November	Deciduous	Able to survive the summer heat, its profusion of brilliant flowers adds a colorful touch to a dry landscape
	White, Red, Pink	February- October	Deciduous	Reseeds easily
	Blue, Purple, White	April-October	Deciduous	2-3' spikes of blue flowers during growing season, attracts bumble bees
	Yellow	August-October	Deciduous	Attracts butterflies, birds, bees



NATIVE PLANT LIST: PERENNIALS

NAME	LIGHT	SIZE	SOIL CONDITION
Texas Betony Stachys coccinea	Sun/Part sun	2-3 ft	Dry, Moist
Four-Nerve Daisy Tetraneuris scaposa	Sun/Part Sun	1 ft	Dry
Cowpen Daisy, Golden Crown- beard Verbesina enceli- oides	Sun	1-3 ft	Dry
Zexmenia Wedelia acapul- censis var. hisp- ida	Sun/Part Sun	2-3 ft	Dry, Moist
Autumn Sage Salvia greggii	Sun/Part Sun	1-3 ft	Dry



	COLOR/ FEATURE	BLOOMING SEASON	EVERGREEN/ DECIDUOUS	COMMENTS
	Red	March-October	Evergreen	Can function as ground cover in part shade
	Yellow	March-October	Evergreen	Nectar source
	Yellow	April - September	Annual	Tolerates poor soil
	Yellow	May-November	Deciduous	Long lived, nectar source
	Red, Pink, Orange, Purple	March-November	Deciduous	Attracts butterflies, birds, bees



NATIVE PLANT LIST: ORNAMENTAL GRASSES & GROUNDCOVERS

NAME	LIGHT	SIZE	SOIL CONDITION	
Blue Grama <i>Bouteloua gracilis</i>	Sun	3-6 ft	Dry	
Big Muhly <i>Muhlenbergia lindheimeri</i>	Sun	3-6 ft	Dry, Moist	
Wooly Stemodia <i>Stemodia lanata</i>	Sun	4-10 in	Dry	



	COLOR/ FEATURE	BLOOMING SEASON	EVERGREEN/ DECIDUOUS	COMMENTS
	Yellow	June-October	Deciduous	Interesting flower/seed stem, songbirds will eat seeds
	White	May-November	Deciduous	Requires well-drained soils, leaves used as nesting material by birds
	White, Purple, Violet	April-November	Semi-evergreen	Dense fragrant gray foliage, attracts small bees, butterflies, and moths



NATIVE PLANT LIST: YUCCA, NOLINA, AGAVE

NAME	LIGHT	SIZE	SOIL CONDITION
Red Yucca Hesperaloe parviflora	Sun	1-3 ft	Dry
Devil's Shoe- string Nolina lind- heimeriana	Sun/ Part Sun	1-3 ft	Dry



	COLOR/ FEATURE	BLOOMING SEASON	EVERGREEN/ DECIDUOUS	COMMENTS
	Red, Yellow	March- July	Evergreen	Dry garden, nectar for hummingbirds
	Yellow, Green	April- June	Evergreen	Extremely drought tolerant, seeds for birds





TEXAS NATIVE **TURF**



NATIVE TURFGRASS

Grass will become dormant and turn brown during droughts and winter months. Once it rains and temperatures improve, grass will become green once again.

What drought tolerant grass is right for you?

BERMUDAGRASS

Bermudagrass is grown throughout Texas. It is very tolerant of drought and traffic and requires full sunlight. Varieties are available for lawns, golf courses and athletic fields. Seed is available for many varieties.



ZOYSIAGRASS

Zoysiagrasses are drought tolerant, but tend to turn brown sooner than bermudagrass during an extended drought. Zoysiagrass has light to moderate shade tolerance, depending on the variety. Zoysiagrass does well on lawns and in recreational areas with only moderate traffic.



BUFFALOGRASS

Buffalograss is best adapted for areas with annual rainfall of 25 inches or fewer. It does best in full sun and has little tolerance of shade. Buffalograss does well as a low-maintenance lawn grass from Central to West Texas.



LAWN MAINTENANCE

Composting

Adding compost to your yard benefits the soil in many ways including increasing water absorption, reducing water runoff, and can make your grass appear greener. You can feed your soil with a variety of materials such as grass clippings, food scraps, or dry leaves.

Aeration

Aeration machines dig 2 ½ inch holes into the ground, causing the soil to loosen and expand and allowing air and water to move deeper into the soil. Experts suggest you aerate your yard in the spring prior to the summer heat.

Mulching

Placing mulch around your plants help you save water, control weeds, prevent evaporation, and protect plant roots in the winter. You should keep about 3" of mulch and add new mulch every year to enhance the soil.

Mowing

Longer grass blades will help protect the ground underneath, which helps moisture retention and requires less supplemental water. Never remove more than 1/3 of the length of grass blades at a time in order to retain moisture.





IRRIGATION

As much as 50 percent of the water we use outdoors is lost due to wind, evaporation, and runoff caused by inefficient irrigation methods and systems. A household with an automatic landscape irrigation system that isn't properly maintained and operated can waste up to 25,000 gallons of water a year.





Rotors

Rotors are typically used for medium to large scale areas.



Spray Heads

Spray heads are typically used for smaller scale areas.

Swap out your single-stream nozzles to multi-stream nozzles to help save water.



Drip

Drip irrigation is the most efficient and effective form of irrigation as it reduces evaporation and prevents run off.

Drip helps conserve water in small areas such as mulch beds.



Bubblers

Typically, bubblers are used for trees by flooding sections of the root zone.

HOW TO SUCCESSFULLY IRRIGATE

Different types of sprinkler heads require different run times. Research your precipitation rates to ensure you are watering your grass appropriately.

Adjust sprinkler heads to prevent your irrigation system from reaching the sidewalk and streets.

Do not replace portions of an irrigation zone with a different sprinkler head as it will cause unequal coverage. The varying types of irrigation have different precipitation rates and can cause dry spots in your yard.

Practice hydrozoning by grouping similar plant types into zones that have similar watering and sun/shade requirements.

If your irrigation system is fogging or misting into the air instead of infiltrating into the ground, your plants may not be receiving enough water. Speak with a professional to see if a pressure regulator can help your system.

A rain sensor is required for your irrigation system. When the device senses rainfall, the system will turn off as there is no need to water your grass after a rain event.



IRRIGATION METHODS AND TIPS

Cycle and Soak Method

The cycle and soak method is a simple way to achieve a deep and infrequent watering while factoring in runoff. Break irrigation run times into smaller portions to allow water to soak into the ground before applying more water.

Catch Can Method

Take several tuna or cat food cans and place them around your yard about 6 feet apart. Run each zone for 10 minutes. Once completed, measure and record the amount of water in each catch can. Add all of your measurements together and divide by the number of catch cans placed in the yard. This is the average amount your irrigation system will place in your yard in 10 minutes.

Seasonal Adjust

As the seasons change, so does the amount of water required for your grass. Seasonal adjust will save you time and money but adjusting the watering rate as a percentage instead of manually changing all your settings.

Irrigation Tune ups

Improperly set irrigation systems waste water, which leads to high bills. If you have an underground irrigation system, the City of Georgetown offers a rebate to help offset the cost of having your irrigation controller inspected by a licensed irrigator and set to our recommended specifications. You will also learn how to maintain those settings.

Smart Controllers

Replace your standard irrigation controller with a smart controller and save up to 15,000 gallons of water annually. Smart controllers use local weather data to determine if supplemental watering is required for your plants.

SPRINKLER SYSTEM OUTPUT PER MINUTE



KNOW YOUR WATERING SCHEDULE

FIND OUT WHAT STAGE CITY OF GEORGETOWN WATER UTILITY CUSTOMERS ARE IN AT
WATER.GEORGETOWN.ORG

City of Georgetown Watering Schedule



Addresses ending in:

Can water:

1, 5, 9

Tue and/or Fri

2, 4, 6, 8

Wed and/or Sat

0, 3, 7

Thur and/or Sun

 No watering on Monday

City of Georgetown: Stage 2 Watering Schedule



Addresses ending in:

Can water:

1

Tuesday

2 or 6

Wednesday

0

Thursday

5 or 9

Friday

4 or 8

Saturday

3 or 7

Sunday

 No watering on Monday



SPECIAL THANKS TO

WATERSENSE

TEXAS A&M AGRILIFE

LADY BIRD JOHNSON WILDFLOWER CENTER

NATIVE PLANT SOCIETY

**For more information, please visit
water.georgetown.org**



