



SPANISH FORK
PRIDE & PROGRESS

RESIDENTIAL **GUIDEBOOK**

WATER-WISE LANDSCAPE DESIGN
ELEMENTS & PRINCIPLES



May 2, 2023

Dear Spanish Fork Residents,

Spanish Fork City has a long history of being good stewards of our natural resources.

This Residential Guidebook for Water-wise Landscape Design Elements and Principles follows the same ethic the City introduced when a secondary water system was developed in the early 2000's. Water is scarce and needs to be used with great care. I believe our residents will do their part by using this Guidebook and other resources to follow in the footsteps of our predecessors to make sure we are prudent in our use of this precious resource.

This Guidebook provides insight on how to not only design our outdoor spaces to use less water but also to be functional, beautiful and easy to maintain. By following these principles we can make our homes, neighborhoods and community even better than they are today.

I thank you in advance for the consideration you will provide on this issue as you contemplate what to do with your property. This effort provides another opportunity for our City and it's residents to lead and set an example for others to follow. I am confident that as we work together we will do what is best for our community both today and in the future.

Sincerely,

Mayor Mike Mendenhal

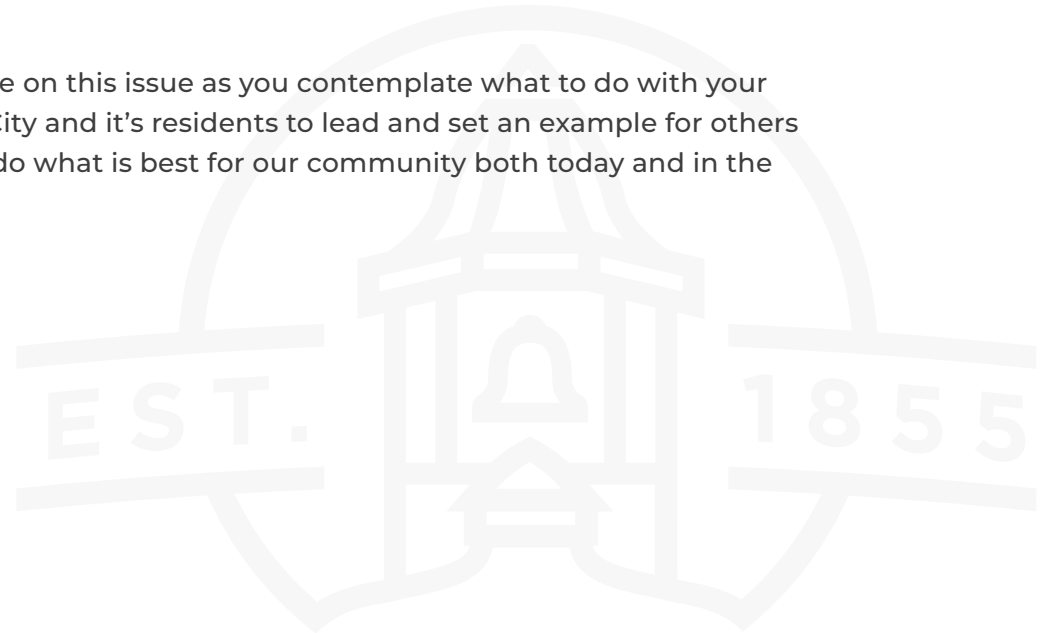




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Introduction

WHY CONSERVE WATER?

Today, Utah is among the fastest growing and driest states in the nation. By the year 2065 the population is expected to double — increasing demand for and stretching finite water resources even further. The current drought is at a level unseen for many years and in some areas the drought is at, or near historic levels. Water conservation is an issue that touches everyone and ensuring that residents have enough water for the future is a major concern for Spanish Fork City's decision makers, water providers, local leadership, and the public.

A 2018 survey conducted by the Utah Department of Natural Resources identified education and information as the foremost barriers to water conservation in Utah and sustainability as the most important reason to conserve. While water conservation will not solve all the problems of water supply and demand, it can help bridge the gap and establish sustainable practices consistent with Utah's climate and fast-growing population.¹

Water-Wise Landscapes

In Utah, outdoor residential water use is the largest single category of municipal water use averaging 45% of statewide municipal use. Of our culinary water use, approximately 65% is applied, often inefficiently, to landscapes.² The types of plants we grow, the density at which they are planted, and the type of system used to irrigate them can all have a major effect on the amount of water needed outdoors. Implementing more water-wise landscapes is one way we can help to conserve water now and for future generations.

A water-wise landscape is functional, attractive, easily maintained in its natural surroundings, and helps to conserve water. Efficient use of water in community landscapes reduces water waste and enhances the community's environmental, economic, recreational, and aesthetic resources. Other benefits include better functionality, less maintenance, enhanced curb appeal, lower water bills, simpler irrigation, and phased installation.³

Landscape Design Simplified

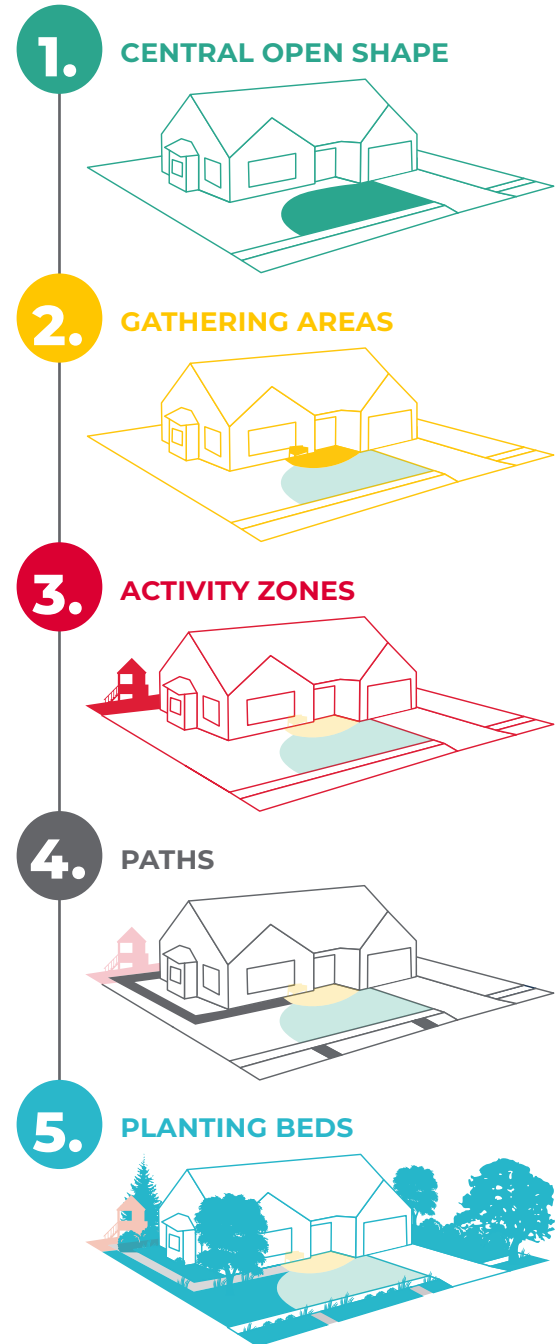
WHO IS THIS GUIDEBOOK FOR?

The water conservation mindset begins with individual water users and while this guidebook is targeted towards single family home owners, it is meant to provide a foundation for anyone seeking to transform their landscape into a water conserving one. It is important to note that **Spanish Fork City does not require single family home owners to install water-wise landscapes**. Rather, the concepts and principles described here are meant to provide guidance, inspiration, and encouragement. Multi-family, commercial, and industrial uses are required to implement water-conserving landscapes (see Spanish Fork's Landscaping Regulations in [City Code 15.4.16.130](#)).

THE LOCALSCAPES APPROACH

Implementing a water-wise landscape begins by utilizing designs and practices that take into account Utah's unique climate. [Localscapes](#) is a program that offers a simplified, practical approach to creating water-conserving landscapes and yards and the first section of this guidebook was adapted from the [Localscapes Introductory Guide](#). What follows are five simple steps for transforming your yard into a practical, water-wise landscape.

This approach can be customized to fit any yard size, shape, or location and can be scaled to meet any budget. If renovating an entire yard isn't feasible, try starting small by installing one segment at a time or by focusing on a park strip or side yard. Remember, the Localscapes Approach is meant to be customizable to meet your needs and should be used in companion with principles of water-wise landscaping (see page 11).



1. Central Open Shape

- ✓ Creates a focal point
- ✓ A simple, practical shape
- ✓ Often flat



A **central open shape** creates a focal point that makes your landscape appear organized and well maintained. It allows sprinklers to work more efficiently by not forcing them to water oddly-shaped or inefficient turfgrass areas. The central open space can be made of materials such as turfgrass, ground cover, gravel, pavement, pavers, or any low-lying relatively flat material.



2. Gathering Areas

- ☑ Areas to passively enjoy your yard
- ☑ Any size or shape
- ☑ Often include hardscape elements (patios, seating areas, courtyards, and decks)
- ☑ No turfgrass, plants, or water required
- ☑ Low maintenance



Gathering areas provide opportunities to passively enjoy your yard. They can be any size or shape and are great for fire pits, sun decks, gazebos, and sitting areas.

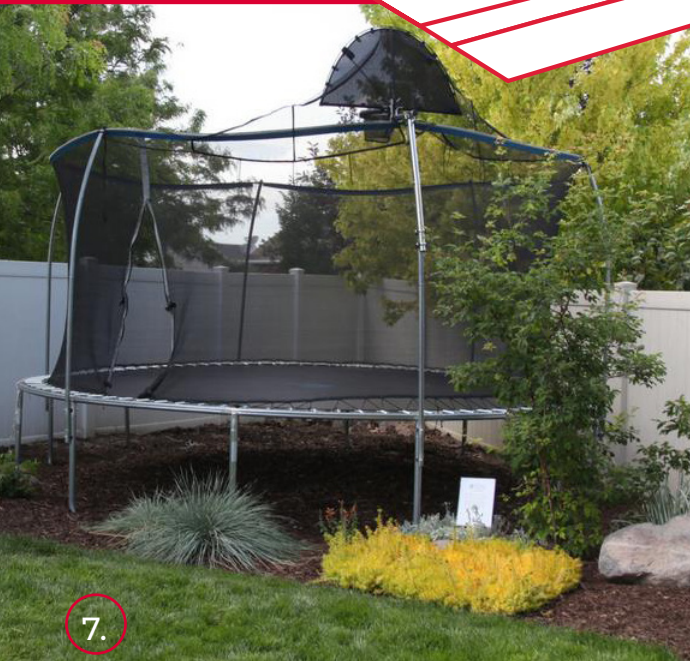


3. Activity Zones

- ☑ Areas with dedicated uses
- ☑ Increase yard functionality while decreasing yard work
- ☑ No turfgrass

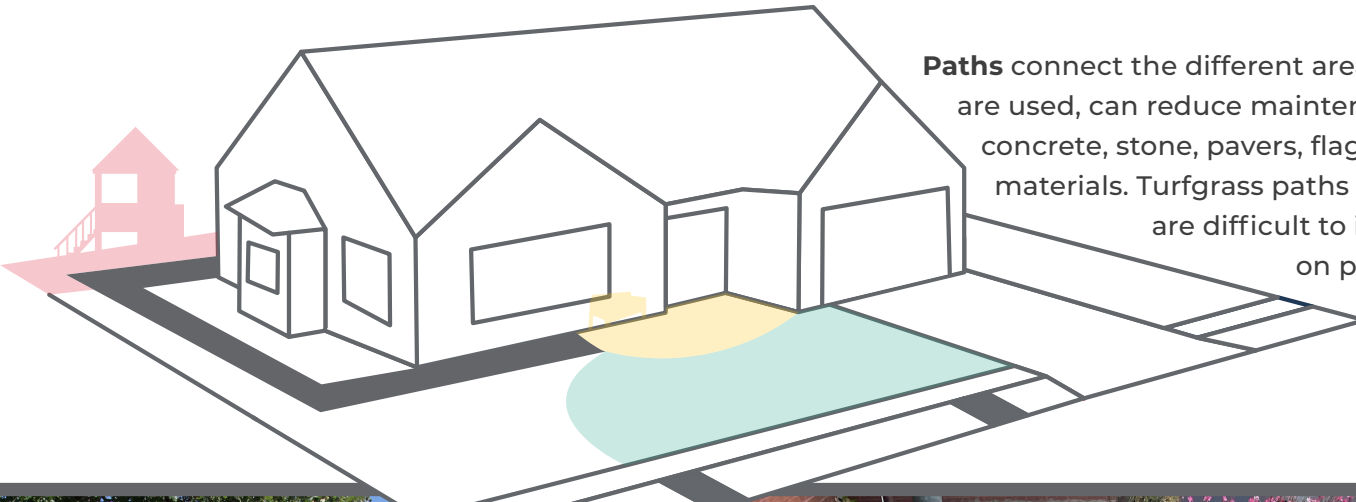


Activity zones are dedicated areas without irrigated turfgrass surfacing. Examples include vegetable gardens, horseshoe pits, sheds, sports courts, hot tubs, and playsets.



4. Paths

- ☑ Used to connect and explore your yard
- ☑ No irrigated turfgrass

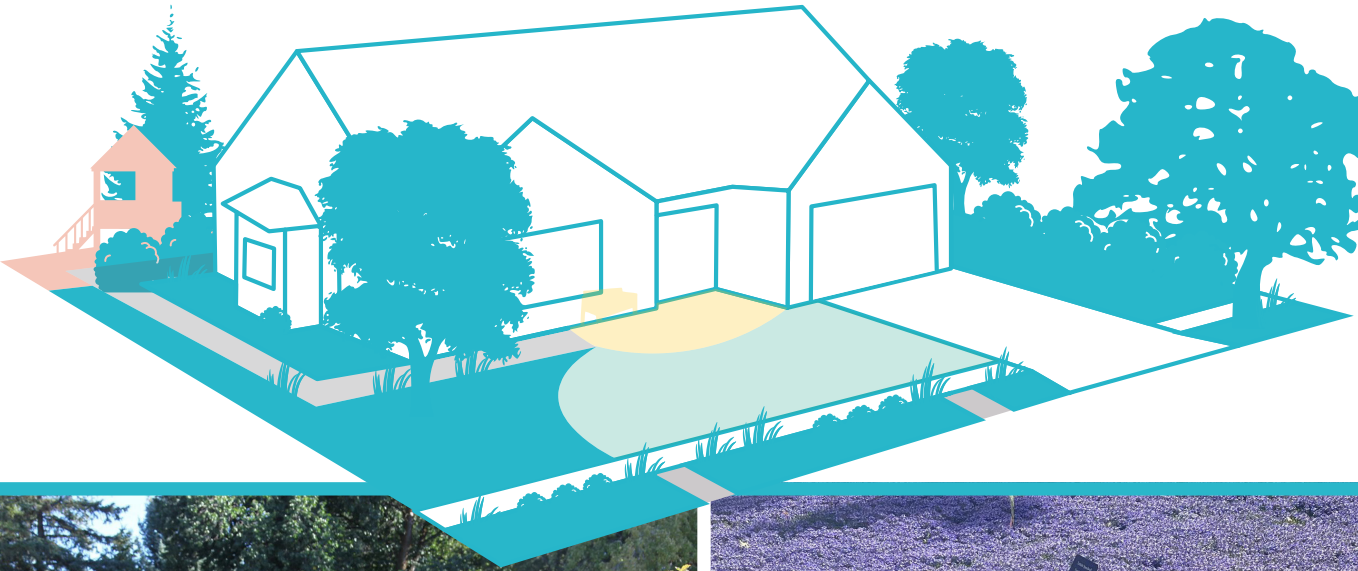


Paths connect the different areas of your yard and, when appropriate materials are used, can reduce maintenance. Options for path materials include concrete, stone, pavers, flagstone, compacted crushed stone, and similar materials. Turfgrass paths should be avoided since narrow turfgrass strips are difficult to irrigate and maintain (see Practical Turf Areas on page 12).



5. Planting Beds

- ✓ Fills and completes remaining areas
- ✓ Should be Utah-friendly, properly located, and watered efficiently



After a plan is made for the central open shape, gathering areas, activity zones, and paths, **planting beds** composed of water-conserving plants and water-efficient irrigation systems are used to fill the remaining areas.



Principles of Water-Wise Landscaping

An effective water-wise landscape design requires the application of water-conserving principles such as grouping plants with similar water requirements together or applying mulch around plants to retain moisture.

The following section describes seven water-wise principles from the [Utah State University Extensions Center for Water-Efficient Landscaping](#) which are meant to support and complement the Localscape design elements. As we design, install, and manage our yards and landscapes, it is critical to utilize the following principles of water-wise landscaping.

PRINCIPLE #1: Start with a plan

The planning and design stage is an opportunity to consider the needs of those who will use and maintain the space while also acknowledging existing environmental conditions found on the site.

For a landscape design to be water-conserving, it needs to use water efficiently. The planning stage is the optimal time to decide which water efficiency strategies will be used.

KEY PLANNING & DESIGN CONSIDERATIONS

- **Develop a Plot Plan:** A plot plan is simply a map of your property that includes existing buildings, structures, trees, shrubs, property lines, driveways, gardens, utility lines, slopes, and other possible design limitations.
- **Site Analysis:** Look for the environmental assets and constraints of your landscapes such as soil conditions, slopes, wind direction, and views.
- **Planning the Design:** Based on your site analysis, decide where to place the various elements of your landscape in order to optimize water conservation as well as to enhance aesthetic qualities of your property.

Planning & Design Resources

- [Localscapes® Program](#)
- [USU Center for Water-efficient Landscaping](#)
- [Conservation Garden Park](#)
- [Flip Your Strip Program](#)
- [Utah Water Savers](#)
- [SLC Plant List & Hydrozone Schedule](#)

PRINCIPLE #2: Practical turf-areas reduce over-irrigation

Water-efficient landscaping does not require the elimination of all turfgrass. In fact, turfgrass can be a practical and beneficial component of a water-wise landscape if best practices are followed. The use of turfgrass becomes problematic when it is over-irrigated, used in areas that are challenging to irrigate such as steep slopes or odd-shaped and narrow spaces, and when it is placed in areas where it isn't useful.⁴

Turfgrass Resources

- [Localscapes® Program](#)
- [The Turfgrass Water Conservation Alliance](#)
- [USU Center for Water-efficient Landscaping](#)
- [USU Extension Sustainable Turf](#)
- [USU Climate Center](#)
- [Conserve Water Utah Grass Removal Rebates](#)
- [SLC Plant List & Hydrozone Schedule](#)

KEY TURFGRASS CONSIDERATIONS

- **Consider functionality:** Turfgrass is great for play areas, areas with high traffic, and areas needing temperature, noise, or dust control. If a turf area is only used when it's mowed (such as a park strip), choose a lower maintenance plant or ground cover for that location.
- **Choose species with lower water requirements:** Not all turfgrass species are the same. Choose a species with low water requirements that performs well in Utah.
- **Brown isn't always bad:** Many turfgrasses can withstand considerable drought stress by entering dormancy (turning brown). If a turfgrass is not performing a functional role, consider watering it less.
- **Irrigated turfgrass shape and size matter:** Avoid planting turfgrass in narrow, small, or oddly shaped areas that are difficult to irrigate efficiently.
- **Don't over water:** Water turfgrass separately from other landscape plants and design an irrigation system that doesn't exceed the turf's actual water needs.
- **Enhance turfgrass water-efficiency:** Typical practices such as mowing at taller blade heights, using proper fertilization, and returning grass clippings will lead to healthier turfgrass and improve water efficiency.

PRINCIPLE #3: Soil preparation is the foundation of a quality landscape

Soil is the most basic component of a quality landscape and will have an impact on the growth rate, health, and appearance of plants.⁵ Most plants do well under a range of soil conditions, although there are several chemical and physical characteristics that influence quality.

Soil Resources

- [Localscapes® Program](#)
- [USU Center for Water-efficient Landscaping](#)
- [Soil Testing Laboratory at USU](#)
- [USU Topsoil Quality Guidelines for Landscaping](#)
- [SLC Plant List & Hydrozone Schedule](#)
- [BYU Topsoil Parameters](#)

KEY SOIL CONSIDERATIONS

- **Soil Texture:** The percentages of sand, silt, and clay in the soil will have an impact on drainage and nutrient retention. Strive for “loamy soils” that contain an appropriate balance of sand, silt, and clay for the best plant growth.
- **Soil Structure:** Small soil particles will clump together, forming large and small pores throughout the soil. These pores offer an important structure for water and air to reach the roots, and hold water.
- **Soil Organic Matter:** Organic material provides plant nutrients and improves water infiltration, drainage, and retention in the soil. Incorporating proper amounts of manure, compost, leaves, and grass clippings are examples of how to add organic matter into your soil.
- **Nutrient Status:** A healthy balance of nitrogen, phosphorus, and potassium is important for proper plant growth. In general, too many or too little soil nutrients will have a negative impact on plant growth and health.
- **Soil pH:** The acidity or alkalinity of soil affects the availability of mineral nutrients for plants. Some plants are acid-loving (lower pH) while others become sensitive to iron deficiency at high pH levels.

PRINCIPLE #4: Proper plant selection and placement saves water

Selecting the right plant for the right place is critical to creating a water-efficient landscape. Proper placement provides shade, privacy, beauty, efficiency, and can even decrease yard maintenance.³

2.

KEY PLANT SELECTION & PLACEMENT CONSIDERATIONS

- **Fit and Function:** Choose plants based on desired characteristics and water use.
- **Consider Adapted Plants:** Choose plants that are adapted to the soil, water, temperature, light, and pest considerations of the landscape to help minimize maintenance and water requirements. Note that not all adapted plants need to be native and that native plants are not necessarily water-conserving.
- **Hydrozones:** Group plants according to their water needs.
- **Seasonal Interest:** Foliage, bloom, and seed head displays will vary throughout the year. Consider incorporating spring, summer, and fall interest in each planting group to keep landscapes from looking bare and boring.
- **Avoid site obscuring plants:** Shrubs and trees should never interfere with driver/pedestrian visibility near driveways and street corners.
- **Hardiness Zone:** Plants that will survive in the Utah climate range between hardiness zones 4-9 and the range in Spanish Fork City is 5-7. Multiple factors can influence a plant's hardiness for a region. Visit the [USDA Plant Hardiness Website](#) to learn more and confirm with your professional plant suppliers that the selected plants are hardy for your location.

Plant Selection Resources

- [Localscapes® Program](#)
- [USU Center for Water-efficient Landscaping](#)
- [USU Cooperative Extension Tree Browser](#)
- [Water-Wise Plants for Utah Landscapes](#)
- [Conservation Garden Park](#)
- [USDA Plant Hardiness Zone Map](#)
- [SLC Plant List & Hydrozone Schedule](#)
- [The Morton Arboretum Online Tree and Plant Search Tool](#)
- [Cornell University Woody Plants Database](#)
- [J. Frank Schmidt and Son Tree Reference Guide PDF Download](#)
- [Missouri Botanical Gardens Plant Finder Tool](#)

PRINCIPLE #5: Retain moisture with mulch

Mulch covers the soil and prevents crusting, compaction, and moisture loss. Mulching around trees, shrubs, and flower beds can result in a ten-fold reduction in evaporative water loss from soil. Mulch is also an important visual design element and can be used along walkways, plant borders, and to add color and structure to the landscape.

Mulch Resources

- [*Localscapes® Program*](#)
- [*USU Center for Water-efficient Landscaping*](#)
- [*Water-Wise Landscaping - Mulch*](#)
- [*SLC Plant List & Hydrozone Schedule*](#)

KEY MULCH CONSIDERATIONS

- **Organic mulches:** Materials such as wood or bark chips, shredded bark, nut shells, pine needles, and other similar compostable plant materials are examples of organic mulches.
- **Disease and toxic-free:** Make sure organic mulches (wood chips, shredded bark, pine needles, etc.) are free from weed seeds, disease-causing organisms, and pesticide and herbicide residues.
- **Nitrogen deficiency:** Nitrogen deficiency can be avoided by composting mulch or by replacing the lost nitrogen using a specific fertilizer applied at specific rates.
- **Inorganic mulches:** Non-organic materials such as gravel and crushed stone are examples of inorganic mulches. Inorganic mulches provide many of the same benefits as organic mulches, but do not add to soil fertility.
- **Mulch application:** Mulch is best applied after planting in the fall or spring once the soil has warmed. It can be used with or without a weed barrier sheet.

PRINCIPLE #6: Efficient irrigation is critical for conserving water

Grouping plants with similar water needs (hydrozoning) is the first step in developing an efficient irrigation plan. Once plants are properly zoned, develop an irrigation schedule that will apply the appropriate amount of water based on the unique needs of each zone.

KEY IRRIGATION CONSIDERATIONS

- **Hydrozones:** Group plants with similar irrigation needs in the same zones.
- **Drip irrigation:** Drip irrigation systems are great for water-efficient landscapes because water goes directly to the plants roots without being wasted on areas that do not need to be watered.
- **Irrigating turfgrass areas:** Turfgrass has more shallow roots than other landscape plants. It should be irrigated

more frequently and not as deeply as other plants.

- **Irrigating trees and shrubs:** The longer and more extensive root systems of trees and shrubs mean they should be watered less frequently but for longer periods of time.
- **Automatic irrigation timers:** Do not forget to adjust an automatic irrigation timer with seasonal weather changes.

Irrigation Resources

- [Localscapes® Program](#)
- [USU Center for Water-efficient Landscaping](#)
- [USU Climate Center](#)
- [SLC Plant List & Hydrozone Schedule](#)
- [EPA Water Budget Tool Spreadsheet Download](#)
- [EPA Landscape Water Budget Tool Links & Narratives](#)
- [EPA Landscape Water Budget Data Finder – by Zip Code, Peak Month ETo and Rainfall](#)
- [EPA WaterSense – Weather-Based Irrigation Controllers, Soil Moisture-based Irrigation Controllers, Spray Sprinkler Bodies](#)
- [Hunter Irrigation Design & Technical Guides](#)
- [Rain Bird Irrigation Design Guides](#)

PRINCIPLE #7: Proper landscape maintenance keeps plants healthy and helps to conserve water

Landscape maintenance is one of the most important components of a beautiful and lasting landscape. The main activities required to maintain a water-wise landscape are irrigation and irrigation system maintenance, weed control, fertilization, pruning, and pest and disease control.

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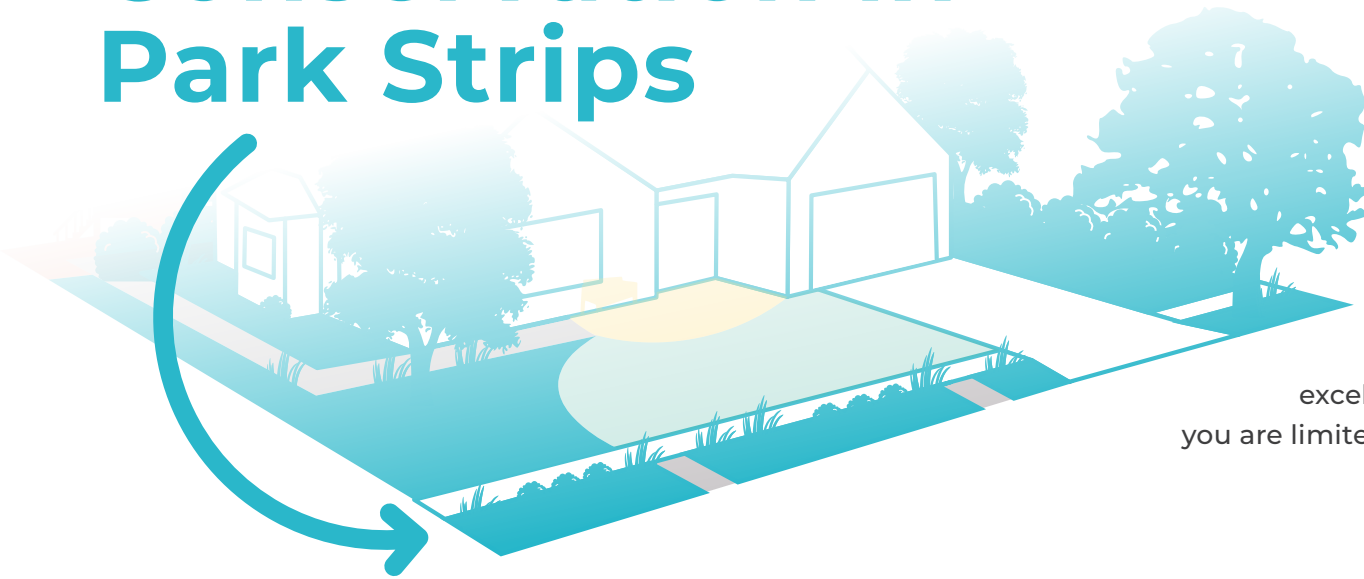
Landscape Maintenance Resources

- [*Localscapes® Program*](#)
- [*USU Center for Water-efficient Landscaping*](#)
- [*Soil Testing Laboratory at Utah State University*](#)

KEY LANDSCAPE MAINTENANCE CONSIDERATIONS

- ➔ **Weed control:** Controlling weeds is critical to maintaining a healthy water-wise landscape. Weeds can be removed mechanically, controlled through physical barriers (such as mulch), or through the use of herbicides as a last resort.
- ➔ **Fertilization:** Plants require nutrients to grow and remain healthy (see soils discussion on page 13). In most cases, adding composted organic matter prior to planting will improve the fertility of your soil. The key is to know the habitat your plants are adapted to prior to planting and, if you don't know, err on the side of less rather than more nutrients, as over-fertilizing only weakens plants. Have your soil tested prior to installing plants so that you have an understanding of your specific landscape conditions (see the [Utah State University Analytical Laboratory](#) for quick and inexpensive soil sampling services).
- ➔ **Controlling plant growth:** Activities such as pruning, deadheading, and dividing will maintain the health and appearance of your plants by removing dead or undesirable growth and stimulating, reinvigorating, or re-directing their growth.
- ➔ **Pest and disease control:** Fighting insect or plant disease starts with prevention. Prevention involves many of the principles that have been described, including using landscape plants adapted to your climate, diversifying plant choices, and maintaining optimal plant health by not over-fertilizing and by using the appropriate amount of water.

Water Conservation in Park Strips



Park strips are one of the largest water wasters in a residential landscape. These hot, narrow, strips of land are a challenge to water and with overhead spray, the sidewalk and street frequently receive more water than the park strip. As such, these locations offer unique opportunities for water conservation in the landscape and are an excellent place to begin transforming your yard if you are limited by time or budget.

PARK STRIP CHALLENGES

- **Size & Shape:** Park strips are generally a narrow, isolated shape that can be difficult to water.
- **Heat:** Park strips are usually adjacent to hot surfaces that can bake plants.
- **Salt:** Salts applied to roads in the winter can end up in park strips and cause damage.
- **Ownership:** Since the park strip is owned by the city but maintained by you, there are specific safety and utility access guidelines that must be followed.

WATER-WISE PARK STRIP BENEFITS

- **Water Savings:** According to Utah Water Savers, removing irrigated turfgrass from your park strip can save an estimated 5,000-8,000 gallons of water each year.
- **Curb Appeal:** Park strips enhance curb appeal and provide a physical and visual safety buffer between pedestrians and the roadway.
- **Start Small:** Park strips are a great place to begin applying water-wise landscape principles — especially if you have limited resources!

CREATING A WATER-WISE PARK STRIP

The following best practices for converting an existing park strip to a water-wise one apply generally to most projects. Note that the Utah Water Savers “Flip Your Strip” program offers rebates to remove turf from park strips and create attractive, low-water alternatives. The Flip your Strip program requirements are included for reference only and do not represent Spanish Fork City requirements.

Understanding the Requirements

As you follow these steps, pay attention to items shown in **blue** and **red**. These important notes will help you navigate the Flip your Strip program requirements as well as Spanish Fork City regulations.

- **FLIP YOUR STRIP** program requirements are shown in **blue**.
- **SPANISH FORK CITY** requirements are shown in **red**.

✓ **STEP #1:** Start with a plan⁶

Refer to Principle #1 on page 11.

→ **Do your homework.** The park strip is owned by the City, but property owners are required to properly landscape and maintain any park strip adjacent to their private property. As the owner, Spanish Fork has set specific requirements for park strips that property owners should be aware of before beginning a transformation project, (see [City Code 15.4.16.130](#)). If you live in an HOA there may be additional requirements. Contact the City’s Community Development Director if you are unsure about any requirements.

- **Think about timing.** It takes time to kill turfgrass (up to six weeks) and planting in the spring or fall is generally best.
- **Do you want to pursue a rebate program?** There are several rebate programs that provide reimbursement for water-wise conversions. Visit the Central Utah Water Conservancy District Residential Rebates website at cuwcd.gov/rebates to learn more.
- **Apply the same principles.** Don’t forget that the same water-wise landscaping principles (see pages 11-17) apply to park strips.

✓ **STEP #2:** Kill & remove turfgrass

Turfgrass will need to be killed down to the roots using plastic sheets or herbicides before it can be removed (if using an herbicide be sure to follow the directions carefully). Turfgrass can be removed with a sod cutter or tiller (be sure to mark existing sprinkler heads and be careful around existing trees). Remove turfgrass and soil several inches below the sidewalk.

- ➔ **Timing:** It can take at least six weeks for the turfgrass to die when covered and 1-2 weeks with herbicides, so plan accordingly.
- ➔ **Call before you dig:** Remember that park strips are used for underground utilities such as water, gas, power and other utility lines. **Always call 811 for utilities before you dig.**

FLIP YOUR STRIP

- *Park strips must be currently landscaped with living, healthy turfgrass prior to beginning the program. Projects are ineligible if turfgrass has been killed or removed prior to a pre-conservation site visit. Projects should remove all turfgrass from the park strip and replace it with water-efficient landscaping.*
- *If landscape fabric is installed after turfgrass removal, (not recommended), it must be permeable to water and air.*
- *Projects that replace irrigated turfgrass with artificial turf are not eligible for the rebate.*

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- *If you plan on removing any trees, contact the City's Urban Forester for guidance.*

✓ **STEP #3:** Install or convert to drip

Refer to Principle #6 on page 16.

Drip irrigation is essential for park strips because it supplies water directly to the plant roots, cutting down on water waste. Three rows of in-line drip irrigation is recommended for efficiency. Completed park strips should be irrigated with low-volume drip systems including filters and pressure regulators.

- ➔ **Consider retrofitting the existing system:** Sprinkler heads can often be retrofitted and unnecessary spray heads can be capped (always check for any HOA regulations).
- ➔ **Trees have different water requirements:** Trees have extensive roots systems that must receive enough water even after the turfgrass is removed.

FLIP YOUR STRIP

- *Drip emitters must be rated at 5 gallons per hour or less. Bubblers, micro-spray emitters and soaker hoses are not allowed.*



1.

✓ **STEP #4:** Include hardscapes

Refer to Localscapes Design Guideline #4 on page 9.

Hardscape “paths” act as pass-through areas in park strips. They need to be large enough for safe passage and permeable to water and air.

- ➔ **Run drip underneath:** Drip should be run underneath paths/ hardscapes before they are installed.
- ➔ **Avoid trees:** Keep hardscape materials at least 3' away from existing or new trees.

FLIP YOUR STRIP

- *Concrete areas do not qualify for a square foot rebate, but pavers, bricks, stone, and other permeable materials are permitted.*



✓ **STEP #5:** Add plants

Refer to Principle #4 on page 14 and Design Step #5 on page 15. A park strip plant recommendation list can be found on page 25.

- ➔ **Plant choice matters:** Plants should be water-wise, compact, salt tolerant, and hardy. Avoid plants that get too big, generally you want to choose plants that hug the ground.
- ➔ **Consider plant density and height:** Plants can be planted in low to high densities depending on the desired outcome. Choose plants that won't grow too high.
- ➔ **New plants need more water:** New plants need more water until they are established. Once established, water once per week for about an hour (deeply and infrequently)

FLIP YOUR STRIP

- *Perennial plants must cover at least 60% of the converted park strip at maturity. Trees will not be considered in density calculations.*
- *Plants may not exceed 24 inches in height at maturity. Taller plants block views, impede safety, and can interfere with city maintenance.*

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- *No plant material taller than 36" at maturity shall be in the clear vision area (see page 22).*



Park Strip Tree Guidelines

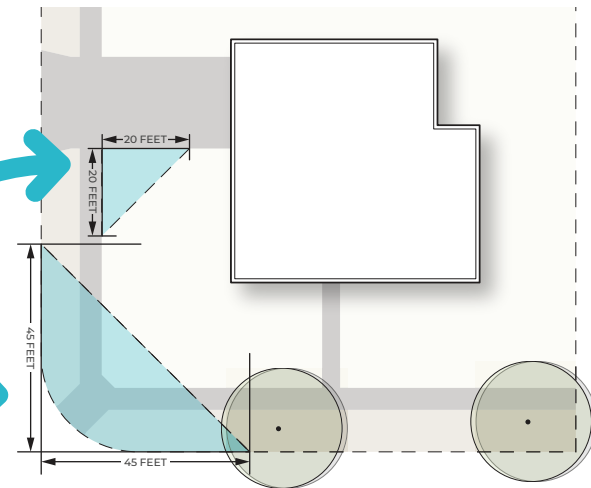
- Tree spacing and placement will depend on the size of the tree. Also to consider is the width of the park strip and proximity to sidewalks, utilities, driveways, or other limiting features.
- Trees should not be planted close to utilities or where they obstruct vision driver/ pedestrian visibility — especially at street corners. Trees shouldn't interfere with the sidewalk, street, or signage.
- Talk to the Community Development Director if you need help or have questions about any requirements.

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- Trees should be selected from the [approved Street and Shade Trees List](#)
- At least one tree should be planted for every thirty (30) feet of street frontage with a minimum of one street tree per street frontage.
- Trees or other site obscuring obstacles that are three (3) feet or taller may not be placed in the clear vision area (see illustration below).
- Trees in park strips within the clear vision area shall be pruned to maintain a clear area below fourteen (14) feet in height.

CLEAR VISION AREA

The clear vision area places some restrictions (such as height) on fencing, planting, and other obstacles in areas that must maintain clear sight lines. See [City Code 15.4.16.150](#).



✓ STEP #6: Time to mulch

Refer to Principle #5 on page 15.

- **Mulch Depth:** Use a thick coat of mulch at least 3-4" deep to cover the soil surface in order to shade out weeds and preserve soil moisture.

FLIP YOUR STRIP

- Completed projects must be covered with 3-4 inches of gravel, bark, or compost mulch. Groundcover plants can qualify as mulch if 100% plant density is achieved at maturity.





WATER-WISE PARK STRIP DESIGN **DO'S**

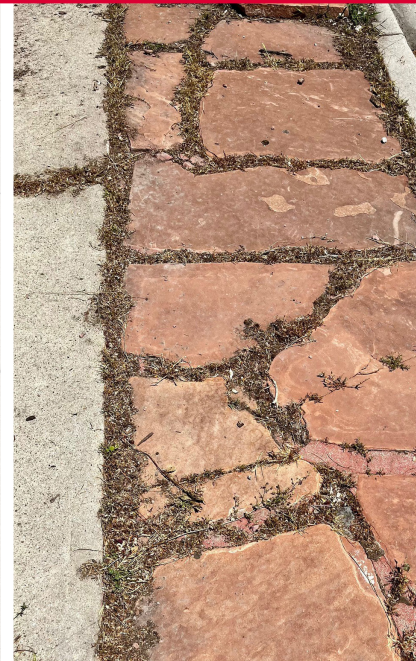
- Do add pathways so guests who park in front of your home can easily access the sidewalk.
- Do use colorful foliage with seasonal interest and use repetition to create order (color, size, shape, etc.),
- Do choose plants based on water-wise principles.
- Do aim for 33-50% plant coverage at maturity.
- Do keep plant massings (groups of the same plant that are used for impact, drama, or harmony) below 20". Accent plants (individual plants that are used to show off a special feature such as a flowering display) should be under 36".





WATER-WISE PARK STRIP DESIGN **DON'TS**

- Don't use irrigated turfgrass or artificial turf as landscaping materials.
- Don't use zero-scape landscape treatments which completely eliminate plants and cover the area with pavement, other paving and hardscape materials, gravel, rock, or stone (remember you can use hardscapes strategically as paths or pass-throughs).
- Don't water the park strip the same amount as your turfgrass.
- Don't block site lines from driveways or roads or interfere with city maintenance (plants should be no higher than 36").



Inspiration & Resources

PARK STRIP PLANT RECOMMENDATIONS

ORNAMENTAL GRASSES		
Botanical Name	Common Name	HxW (Inches)
<i>Helictotrichon sempervirens</i>	Blue Oatgrass	48x24
<i>Schizachyrium scoparium</i> 'Blaze'	Blaze Little Bluestem	36x30
<i>Bouteloua gracilis</i> 'Blonde Ambition'	Blonde Ambition Blue Grama	10x12
<i>Pennisetum orientale</i> 'Karley Rose'	Karley Rose Fountain Grass	36x36

SHRUBS		
Botanical Name	Common Name	HxW (Inches)
<i>Caryopteris x clandonensis</i>	Blue Mist Bluebeard	24x48
<i>Lavandula angustifolia</i>	English Lavender	30x24
<i>Prunus besseyi</i> 'Pawnee Buttes'	Pawnee Buttes Sand Cherry	18x60
<i>Mahonia repens</i>	Creeping Oregon Grape	24x60
<i>Rhus aromatica</i> 'Gro-low'	Gro-low Sumac	24x72
<i>Juniperus horizontalis</i>	Creeping Juniper	18x72
<i>Rhus aromatica</i> 'Autumn Amber'	Autumn Amber Sumac	12x48
<i>Caragana pygmaea</i>	Pygmy Pea Shrub	36x48
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil	36x36
<i>Rosa mediland</i>	Mediland Rose	36x60

PERENNIALS		
Botanical Name	Common Name	HxW (Inches)
<i>Penstemon pinifolius</i>	Pineleaf Penstemon	12x12
<i>Agastache cana</i> 'Sinning'	Sonoran Sunset Hummingbird Mint	30x24
<i>Zauschneria garrettii</i> 'Orange Carpet'	Orange Carpet Fire Chalice	8x24
<i>Hymenoxys acaulis</i>	Sundancer Daisy	12x9
<i>Geranium</i> 'Rozanne'	Hardy Geranium	18x24
<i>Echinacea purpurea</i>	Purple Coneflower	36x18
<i>Achillea millefolium</i>	Common Yarrow	24x24
<i>Eriogonum umbellatum</i>	Sulfur Buckwheat	12x18
<i>Yucca filamentosa</i> 'Color Guard'	Color Guard Yucca	36x36
<i>Perovskia atriplicifolia</i>	Russian Sage	48x48
<i>Spharealcea</i> ssp.	Globemallow	24x12
<i>Gaillardia aristata</i>	Blanket Flower	24x24
<i>Gaura lindheimeri</i>	Whirling Butterflies	36x30
<i>Iberis sempervirens</i>	Candytuft	12x12
<i>Iris</i> hybrids	Bearded Iris	24x24
<i>Rudbeckia fulgida</i>	Black Eyed Susan	36x24

DESIGN INSPIRATION

The following are three examples of different sized lots that have been converted into water-conserving yards. Each reflects the specific needs and desires of the particular owner, illustrating that no lot is too small or too large, and no idea is too divergent to be incorporated into your own personal expression.

Once your new landscape is installed, you are likely to understand that the value of a water-wise landscape far exceeds the obvious reduction in water use. Some of the unanticipated joys include new plants and unexpected splashes of vegetative color in your yard, cooler air temperatures, accommodation of a wider range of outdoor activities in your yard, and the pride knowing that you achieved this on your own!

LARGE LOT

ALL ABOUT AGRICULTURE



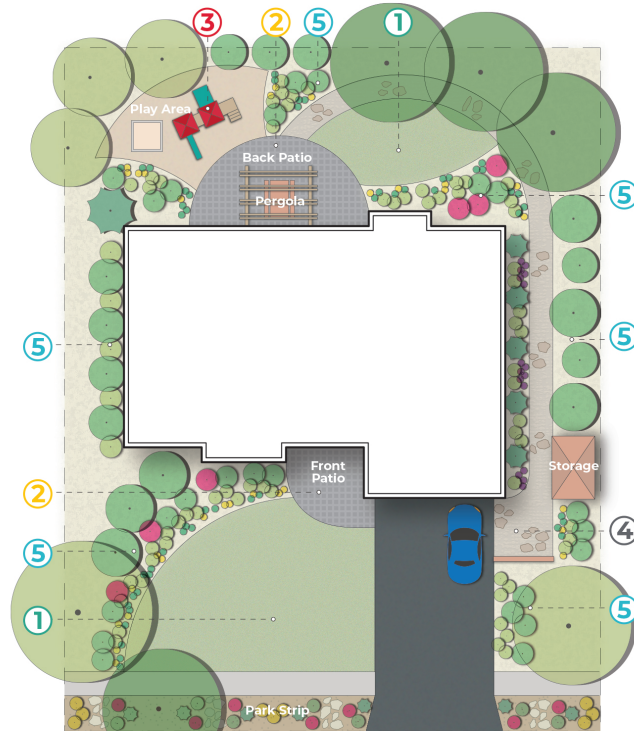
This is an example of a 3/4 acre lot. The large lot is carefully designed to provide a range of activities suited to the needs and personality of the homeowner. In this example, “agriculture” is the primary theme, as illustrated by the rows of plants in the park strip, the extensive orchards in the furthest reaches of the rear yard, and the incorporation of a vegetable garden and chickens completing the “edible garden”.



STANDARD LOT

STONE & CIRCLES

This is an example of a standard 1/4 acre lot that predominates in many parts of Spanish Fork. The front yard lot is laid out in a simple manner, utilizing bold circular forms to create a central open space and stone patio, both backed by a colorful and texture-rich perennial garden. The rear yard is more active, bringing a small turfgrass and a small playground together around the half-circle patio and entertainment area. The two yards are linked with a stone pathway on the widest side, making the front and back extensions of the other.



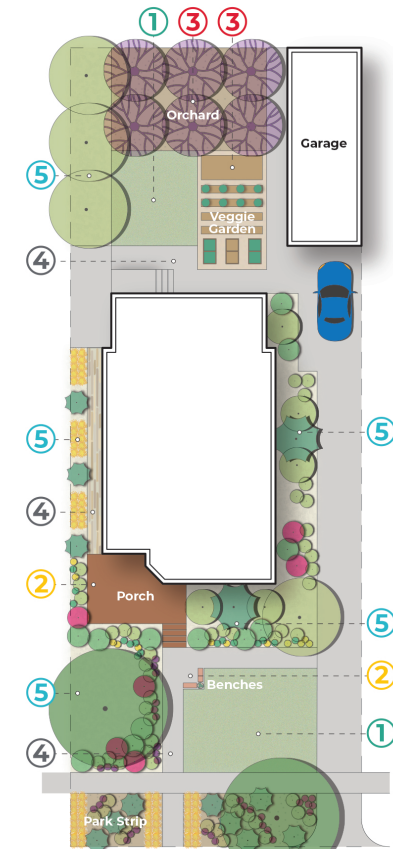
- 1 CENTRAL OPEN SHAPE
- 2 GATHERING SPACE
- 3 ACTIVITY ZONE
- 4 PATHS
- 5 PLANTING BEDS



SMALL LOT

THE POSTAGE STAMP

This is an example of a small urban lot approximately 1/8 acres in size found in the older, more central locations of the city. The design makes the most of a “postage stamp” sized lot, incorporating small turfgrass gathering spaces, urban gardening and even a small orchard. The result is an attractive and intimate space where small surprises abound.



- 1 CENTRAL OPEN SHAPE
- 2 GATHERING SPACE
- 3 ACTIVITY ZONE
- 4 PATHS
- 5 PLANTING BEDS

REMEMBER TO START SMALL

How and when you decide to transform your yard into a water-wise landscape will depend on individual goals, time, budget, and other factors. Not everything has to be changed at once, and starting small and working in stages is an excellent approach.

Start with a park strip, side yard, or the “central open shape” if you aren’t ready or able to transform your entire yard. Need ideas? Visit a local demonstration garden. Need help? Take advantage of available resources, programs, and classes. Remember, water-wise design elements and principles can be customized to fit any yard and scaled to fit any budget.



LOCAL DEMONSTRATION GARDENS

Visiting a demonstration garden is a great way to find ideas and inspiration on how to design and maintain a water-wise landscape. They showcase plants adapted to your specific region and provide classes and other educational resources.

- [Conservation Garden Park at Jordan Valley Water Conservancy District](#) | 8275 South 1300 West, West Jordan
- [Ogden Botanical Gardens](#) | 1750 Monroe Blvd., Ogden
- [USU Botanical Center](#) | 80 East 725 South Sege Lily Dr., Kaysville
- [Swaner EcoCenter](#) | 1258 Center Drive, Park City
- [Red Butte Garden](#) | 300 Wakara Way, Salt Lake City
- [Sego Lily Gardens](#) | 10000 South Centennial Pkwy, Sandy

RESOURCE MATRIX

Click on the resource links below to learn more about specific water-wise landscape design principles, resources, programs, funding, and classes.

Resources	Planning & Design	Turfgrass	Soil/ Topsoil	Plant Selection	Mulch	Irrigation	Landscape Maintenance	Resources/ Programs/ Funding	Classes
Spanish Fork Water-wise Landscape Design Elements & Principles Guidebook (2022)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Localscapes® Program	✓	✓	✓	✓	✓	✓	✓	✓	✓
The Turfgrass Water Conservation Alliance		✓							
Utah State University Center for Water-efficient Landscaping	✓	✓	✓	✓	✓	✓	✓	✓	
Utah State University Extension Sustainable Turf		✓						✓	
Utah State University Cooperative Extension Tree Browser				✓					
Utah State University Climate Center		✓				✓		✓	
Conserve Water Utah Grass Removal Rebates		✓						✓	
Soil Testing Laboratory at Utah State University			✓						
Topsoil Quality Guidelines for Landscaping			✓						
Water-Wise Plants for Utah Landscapes				✓					
Conservation Garden Park	✓			✓					✓
USDA Plant Hardiness Zone Map				✓					
Water-Wise Landscaping - Mulch					✓				
Flip Your Strip Program	✓							✓	
Utah Water Savers	✓							✓	✓
Salt Lake City Plant List and Hydrozone Schedule 2013, Salt Lake City Public Utilities	✓	✓	✓	✓	✓	✓		✓	
EPA Landscape Water Budget Tool – Download excel tool (xlsx)						✓		✓	
EPA Landscape Water Budget Tool – Additional links and narratives						✓		✓	
EPA Landscape Water Budget Data Finder – by Zip Code Peak Month ETo and Rainfall						✓		✓	

RESOURCE MATRIX CONTINUED

Resources	Planning & Design	Turfgrass	Soil/ Topsoil	Plant Selection	Mulch	Irrigation	Landscape Maintenance	Resources/ Programs/ Funding	Classes
EPA WaterSense – Weather-Based Irrigation Controllers, Soil Moisture-based Irrigation Controllers, Spray Sprinkler Bodies						✓		✓	
Hunter Irrigation – Link to design literature and technical guides						✓			
Rain Bird Irrigation – Link to design guides						✓			
Brigham Young University – Topsoil Parameters			✓						
The Morton Arboretum Online Tree and Plant Search Tool				✓					
Cornell University Woody Plants Database				✓					
J. Frank Schmidt and Son Tree Reference Guide PDF Download				✓					
Missouri Botanical Gardens Plant Finder Tool				✓					

IN CONCLUSION

“There is not an entity or individual that is entirely responsible for, or is the exception to, water efficiency. We all need to do what we can to use water wisely. Whether that step is taking a shorter shower, updating infrastructures and appliances, fixing a leak, adjusting sprinkler timers, installing secondary water meters, using a tiered rate, running or following an education campaign, or installing water-wise landscaping. Each step helps us to create changes that will assist in reaching our goals in being water-wise. We do not conserve water because we have a wet or dry year, we conserve because, as Utahns, we are not wasteful.”¹

- UTAH’S REGIONAL M&I WATER CONSERVATION GOALS 2019 REPORT

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