

WHAT IS XERISCAPE?

THE 7 PRINCIPLES OF HIGHLY EFFECTIVE XERISCAPES

Given the sometimes oppressively arid Phoenix climate, it's amazing that anything grows at all. Yet it does. And by incorporating the seven xeriscape principles in your own yards, you can learn to make peace with the Phoenix desert and save water while creating beautiful, personal landscapes.

[Xeriscape...Defined](#)

[The Xeriscape Extremes](#)

[The 7 Principles of Highly Effective Xeriscapes](#)

- 1) [Practice Good Planning and Design](#)
- 2) [Select Plants Wisely](#)
- 3) [Use Turf Selectively](#)
- 4) [Design Water-Efficient Irrigation Systems](#)
- 5) [Consider the Soil](#)
- 6) [Use Mulches](#)
- 7) [Perform Appropriate Maintenance](#)

Xeriscape...Defined

The word “xeriscape” comes from the Greek “xeros”—which, not surprisingly—means “dry.” Denver Water used it first in 1981 to “help make low-water-use landscaping an easily recognized concept.”¹

That we're still explaining what xeriscape is almost 30 years later says that it's still not entirely recognized. But we're getting there. And we're de-bunking myths along the way.

Here in Phoenix, more than 50% of water used in the home is used outdoors.² Xeriscape, then, simply means finding ways to reduce water usage in your landscape.

The Xeriscape Extremes

Given this definition, you can see that xeriscape is a matter of scale. At one extreme, you can replace turf with rocks and cactus and throw the hose away. At the other extreme: using all the plants you brought from back home to re-create the tropical jungle you came from—and watering daily.

In the first example, there's little to no maintenance or watering required—saving time and money on the water bill. But the sharp visual effect would likely not make for a relaxing and pleasing landscape. And without adequate shade, your home will become hotter outside—increasing your air conditioning costs inside. Add the intense heat coming off the rock, and you're adding to the urban heat island.

¹ Denver Water, <http://www.denverwater.org/Conservation/Xeriscape/>, accessed 10/15/09.

² Arizona Municipal Water Users Association, www.amwua.org

On the other hand, using the plants from back home—a common mistake that many of us make when we first arrive in Phoenix—provides a tropical lushness and shade, but means heavy watering and daily maintenance. It's almost like trying to fit a square peg in a round hole.

Finally, unless you have significant resources, you're likely not going to completely mow down existing trees and turf.

So what's the answer?

Do what you can to conserve water, using these xeriscape principles to help you create a highly effective and beautiful Phoenix xeriscape.

The Seven Principles of Highly Effective Xeriscapes

Use these seven principles to help you create a beautiful, stress-free, and water-efficient landscape for your home.

- Practice good planning and design
- Select plants wisely
- Use turf selectively
- Design water-efficient irrigation systems
- Consider the soil
- Use mulches
- Perform appropriate maintenance

1 Practice good planning and design.

Consider landscape design as an inverted pyramid. Throw all of your essential elements in the top, and receive your design and plant list from the bottom.

It's not that simple, of course. But the point is that you must have a holistic view of what you want from your landscape before you can select the plants. And that requires a little planning.

- **Safety first!**
Would you build a pool and not fence it? Probably not. Would you put your kids' swing set on concrete? Of course not. Would you line the walkway to your home with cactus? Not unless you want to keep people out.

So always take safety into consideration when planning your landscape.

- **Use, too!**
Next, consider how you will use your yard. Create usage zones, such as pools, entertaining, outdoor kitchens, specialty gardens, play areas, storage, meditation areas, and more. Consider existing structures, trees, sun exposures, children, pets, physical limitations, HOA requirements, and any other factors.

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For example, a patio on the north side of your house may require a couple of small trees for shade, a pool may require trees that don't throw litter, and unsightly utility areas could be covered with a living wall.

- **Beauty at last!**

Now for the fun part! Do you have favorite plants or colors? Do you hate prickly things? Do you want to attract butterflies or birds?

Making your landscape aesthetically pleasing is the most subjective part of landscape design, giving you an opportunity to showcase your personality with your own unique look.

Now that you've considered safety, functionality, and the visual effect you want, let's turn to the next principle, plant selection.

A little note about planning: *A good plan does not require you to do everything now, it just helps you get there without wasting time or money. Stop along the way. Re-think it. Work in stages. You'll get there in good time.*

2 Select plants wisely.

Now, let's de-bunk the first myth...the one where the only plants you can use are cactus and other native plants. Not true. Lots of plants do well here in Greater Phoenix. Native plants live here, so they do well. Desert-adapted plants have figured out how to thrive here.

See just some of the native and desert-adapted plants available here in Phoenix.

Non-native plants grown outside Phoenix can work well, too—if they're placed in the right spot. Use the microclimates in your landscape as a guide. A mostly shady location close to a patio might be perfect for a fragrant, night-blooming Arabian Jasmine. If you love roses, plant them in an eastern exposure to give them ample sun during the cooler part of the day.

Check with your local nursery for help selecting the right plant. Read the tag. Ask where the plant was grown. Native and desert-adapted plants grown locally will generally thrive in Phoenix under the right growing conditions. Non-natives are generally grown in California. There, "full sun" means something entirely different than it does in Phoenix!

Finally, make sure to group plants in your landscape based on watering needs. For water-efficient irrigation, plants with similar water needs should be on the same valve.

By selecting plants wisely, you can create a rich landscape that not only meets your needs, but reduces water usage at the same time.

3 Use turf selectively.

And here's myth #2...converting to xeriscape means killing off all your grass. That's not true either.

While turf grasses require more maintenance and lots of frequent watering to reach root systems (down to 10" for Bermuda), they also play an important role in xeriscapes. They cool the landscape and reduce erosion. And they provide a place for kids and pets to play.

So you don't need to remove all the grass. Just use it where it makes the most sense.

Think about when and how it'll be used. If you want to keep an eye on the kids playing in the backyard from your kitchen window, plan for turf there. If the kids play outside during winter only, plan for re-seeding.

With good planning and maintenance, small turf areas can be used successfully in a Phoenix xeriscape.

4 Design water-efficient irrigation systems.

Living in the Greater Phoenix area means lots of hot, dry days with an average of just 10" of rain per year or less. While many plants are well adapted to this climate, they still need water to look their best—especially in the summer and during drought. That's a why a well-designed landscape requires a water-efficient irrigation system.

A water-efficient irrigation system provides the right plants with the right amount of water for the right amount of time at just the right time. Water goes right to the plant without being lost to evaporation, run-off, or migration beyond the root zone.

To maximize water usage and simplify irrigation management, the irrigation system should be divided and managed by zones, with trees, shrubs, annuals/perennials, and turf on separate valves. This method allows for watering by the 3-2-1 rule: that is, trees get watered to a depth of 3 feet, shrubs to 2 feet, and annuals/perennials to one foot.

Also, apply water as efficiently as possible. Drip irrigation works well for trees, shrubs, and annuals/perennials while sprinkler systems should be used for turf areas.

And as the Phoenix desert heat soars in the summer and cools in the winter, watering frequency should be checked and adjusted accordingly, generally 3-4 times per year. (Water amount should stay the same.)

Going a step further, consider water harvesting. By capturing and re-directing rainwater and gray water in your xeriscape, you'll benefit from lower water bills—and your plants will benefit from purer water.

For detailed help and planning worksheets, check out [Landscape Watering by the Numbers: A Guide for the Arizona Desert](#) or visit manufacturers' websites.

5 Consider the soil.

Myth #3...always amend the soil!

Again, not true. Native and desert-adapted plants already thrive here, so there's no reason to add soil amendments—and unneeded time and expense.

Instead, make sure to dig your hole 2-4 times the diameter of the plant and to the depth of the root ball. This loosens the soil around the plant, giving it good drainage and room for the roots to grow outward.

That's not to say that soil amendments should never be used. Areas with turf and water-intensive plants will likely require amending. And because desert soils vary widely, some soils may need to be amended. But, generally speaking, you can skip the soil amendments.

6 Use mulches.

Simply put, mulch protects the soil. Especially in Phoenix, mulch keeps desperately needed moisture from evaporating, reduces soil temperatures, minimizes erosion, and inhibits weed growth.

So now the question is: Which mulch should you use?

There are two types of mulch, organic and inorganic. Organic mulches—in Phoenix, generally bark and wood chips—work well with plants adapted to cooler microclimates, keeping the soil moist and reflecting less heat. Organic mulches can also include plant litter (leaves, pods, blooms, etc.) and composted green material.

Inorganic mulches include man-made or permeable substrates. The most popular inorganic mulch in Phoenix is decomposed granite (DCG). DCG allows water and oxygen to easily penetrate root systems for optimal plant growth.

The biggest drawback with DCG is reflected heat. This intense heat, particularly in the summer, can injure plants. It also contributes to the urban heat island and may result in higher home cooling bills.

Using plants to shade DCG ultimately cools the landscape and can reduce home cooling bills.

7 Perform appropriate maintenance.

Whew! You've incorporated good planning into your xeriscape, chosen plants and turf wisely, designed a water-efficient irrigation system, prepared the soil, and used mulch. What's left?

Hopefully, just a little maintenance. Or a lot, depending on your design.

Placing plants where they can grow to maturity and only watering plants when they need it will prevent them from becoming overgrown or getting crowded—and requiring more frequent pruning. Native and desert-adapted plants don't require fertilizer, while non-natives often require additional nutrients. And

most healthy native and desert-adapted plants rarely see insects or diseases, while non-natives may require pesticides from time to time.

At the end of the day, though, all landscapes require some maintenance. Mowing turf, doing annual pruning, and seasonally checking and adjusting your irrigation system will keep your xeriscape healthy, add beauty, and—most importantly—reduce water usage.

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