



# Xeriscaping and other thoughtful landscaping practices to conserve water

**D**rought conditions and limited water supplies in much of the semi-arid West can reduce water availability for irrigating home landscapes. This makes water conservation an important component of gardening in Montana and beyond. Xeriscaping, a term originally developed by Denver Water (derived from the Greek word “xeros,” which means ‘dry’), is a method of landscaping that incorporates water conservation strategies to minimize water waste and reduce the need for supplemental irrigation. The intention of this and other water-wise strategies is to increase water use efficiency, creating a landscape that is more suitable for dry and

semi-arid conditions and resilient to seasonal water supply issues, which can also reduce associated costs with outdoor water use.

In order to be successful in water-efficient landscaping, it is important to plan gardens with appropriate irrigation systems, landscape design considerations, and suitable plant choices in mind.

## **IRRIGATION**

Thinking about irrigation systems is an important step for achieving water conservation in the landscape. Avoid wasting water by selecting efficient irrigation methods



(drip vs. overhead spray), ensuring sprinkler systems aren't irrigating unnecessary areas (such as pavement), incorporating rain sensors in automatic sprinkler systems, and paying attention to the time of watering (early morning is best for plants to absorb the water, minimize evaporation, and reduce disease issues by allowing foliage to dry). Consider conducting an irrigation audit to make sure that sprinkler systems are efficiently distributing water to the targeted landscape areas.

Where possible, use drip irrigation, soaker hoses, or bubblers, which are more efficient than overhead spray irrigation and will reduce water lost to evaporation and wind drift, and deliver water directly to individual plants and planting areas. Water deeply and infrequently (depending on plant needs) to discourage shallow rooting and group plants together based on similar landscape and irrigation requirements.

### **LANDSCAPE CONSIDERATIONS**

South and west-facing areas experience high levels of sun exposure and result in higher plant water demands. Reducing plants with high water needs in these areas, shading areas with high exposure using trees and ground

covers, and utilizing appropriate irrigation strategies can reduce watering needs and excess evaporation. Areas with steep slopes result in greater water runoff, so creating terraces can allow more water to soak in. Compacted soils can also result in water runoff, so aerate the soil and add one-quarter-inch of compost to improve soil texture and moisture retention capabilities.

Mulches are an excellent way to minimize water evaporation, maintain soil moisture, discourage weeds, and improve soil health, though not all mulches are created equal. For areas around landscape beds, where soil health is an important consideration, organic mulches such as arborist wood chips are a great option. Adding a four-inch layer of arborist chips can help to maintain soil moisture, keep soils cool, limit weeds, and improve soil health over time. Inorganic mulches such as gravel and rocks can be used in areas between landscape beds or with some native and drought-tolerant plants, but these can increase heat reflection and stress some sensitive trees, shrubs, and other landscape plantings. Plastic mulches, sheet mulches, and weed fabrics are not recommended in permanent plantings, since they limit oxygen and water penetration which can hurt plant root systems and soil microbes.

## PLANT SELECTION

Plant selection is an important component of any healthy garden landscape, and is especially critical for water-wise landscaping. Make sure plants are suited to the environment and soil type, and select plants that are more drought-tolerant and have reduced supplemental irrigation requirements. Native plants that are adapted to the regional climate, soil types, and moisture availability can be an excellent component of a water-wise landscape. Visit local nurseries for Montana-adapted plants, and select those with lower water requirements.

Turfgrass is an important aspect of many urban landscapes, and well-maintained turf has several benefits including reducing erosion and runoff, cooling, and providing space for recreation. However, turfgrass lawns, especially those comprised of low-mowed Kentucky Bluegrass have some of the highest irrigation requirements for landscape plantings. Fine fescues have lower irrigation requirements than Kentucky Bluegrass and can provide a similar aesthetic. Keeping a higher mowing height for turf (3 inches) and watering deeply and infrequently encourages deeper rooting and higher resilience to water stress. For a more water-efficient landscape, consider reducing the overall area of irrigated turf to functional and heavily used sections of the landscape. Turf should be avoided in areas with full shade, narrow strips of land, poor-quality soils, and steep slopes. Convert these spaces to more drought-tolerant landscape beds and/or replace them with water-efficient groundcovers. Groundcovers such as Creeping Juniper (*Juniperus horizontalis*), Bearberry (*Arctostaphylos uva-ursi*), and Creeping Thyme (*Thymus praecox*) can be great alternatives in areas where turfgrass isn't functional or suitable and require significantly less water.



Utilize arborist woodchips around plantings to maintain soil moisture, limit weeds, and benefit soil health over time.

There are many additional drought-tolerant plants well-suited for Montana's climate. In addition to reducing landscape water use, xeriscaping and water-wise landscaping can be low maintenance, provide an opportunity to increase plant diversity, incorporate aesthetic combinations of color and texture, and provide resources for beneficial insects including pollinators. For more comprehensive lists of water-efficient and xeriscape-friendly plant lists, and a how-to guide on designing a xeriscape, check out the resources below.

By incorporating a combination of the above strategies, and intentionally planning and maintaining gardens with water efficiency in mind, it's possible to create a beautiful landscape that benefits the environment and saves money in irrigation costs.

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### FOR MORE INFORMATION

#### Xeriscaping: Creative Landscaping

<https://extension.colostate.edu/topic-areas/yard-garden/xeriscaping-creative-landscaping-7-228/>

#### Creating Native Landscapes

[https://www.nrcs.usda.gov/Internet/FSE\\_PLANTMATERIALS/publications/mtmpcpunatland.pdf](https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/mtmpcpunatland.pdf)

#### Yard and Garden Water Management MontGuide

<https://apps.msuextension.org/montguide/guide.html?sku=MT198915AG>

#### Xeriscaping: Retrofit Your Yard

<https://extension.colostate.edu/topic-areas/yard-garden/xeriscaping-retrofit-your-yard-7-234/>