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# Conserve Water with Xeriscape Landscaping

Rainfall in Rockland may fluctuate widely – bone dry one year, soggy the next. Because Rockland derives water from sources within our limited boundaries, increasing episodes of water scarcity are changing the way we think about water use. If you consider that landscapes often demand nearly 50 percent of the water used for home consumption during the growing season, you will see that it makes sense to garden with water conservation in mind. With some planning, you may be able reduce your landscape water use by 50 to 60 percent.

Xeriscaping, derived from the Greek xeros, meaning ‘dry,’ stresses the use of drought tolerant plants, appropriate landscape design and horticultural techniques that minimize water use. A xeriscape garden isn’t just rocks, cacti and dull colors. It displays the colorful flowers and turfgrass that discerning gardeners have come to expect in a landscape. Your landscape, whether old or new, can be more water efficient if you implement the innovative concepts of xeriscaping:

## Proper Design

Whether you use your own ideas or hire someone to plan your landscape, take the time to plan water use areas, by grouping plants with similar water needs. Start by assessing your site and observing the micro-climate of your landscape throughout a season. Do some areas bake in the sun? Do the plants seem to suck up water as fast as you can supply it? Are there places where water collects? Are these areas continually wet or do they dry out in warm weather? The answers to these questions will help you choose the best plant materials for your site.

Limit the use of plants with high water needs unless you have a wetland or other boggy area. Use plants that require the most water near your house or a readily available water source. Since turf uses a lot of water, keep lawn areas to a minimum, and choose grass varieties that require less water and maintenance. Separate turf from other types of plantings, such as trees, shrubs, perennials and groundcovers.

Place plants that require the least water furthest from your home. There are many beautiful plants that will not need supplemental water once they are established. Given the wide fluctuation in local precipitation, it is fortunate that many drought tolerant plants are also able to handle very moist or waterlogged soil.

For best results, take advantage of water runoff from downspouts, driveways and other surfaces when possible. If additional water is needed, use soaker hoses or drip irrigation – these deliver water most efficiently in garden beds. Apply a two inch layer of organic mulch to slow down water loss from the soil surface. Many decorative types are available at garden centers, or you can use shredded leaves, pine needles or other materials from your yard.

## Soil Improvements

Sandy and clay soils that do not hold water well may be improved by adding organic matter. Terracing and retaining walls can slow water runoff and improve its ability to move through the soil profile. Make these improvements to your soil before installing an irrigation system.

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## Modify Lawn Area

Replacing existing lawn areas with drought tolerant grass helps save water in your xeriscape garden. Varieties of tall fescue, fine fescue and perennial ryegrass are viable options. Replacing turf with ground covers, mulches or perennials is another alternative. Due to different irrigation requirements, turf should be kept separate from other landscape plants.

## Effective Mulches

Mulches keep the soil moist, decrease evaporation, reduce weed growth and slow erosion. Organic mulches like bark chips and inorganic mulches like rock and gravel products can be used to delineate paths, shrub and tree areas. Organic mulches help build the nutrients in your soil as they decompose, but must be renewed on a regular basis. Stones or pebbles used in shady areas require little maintenance. Inorganic mulches should not be used near the house or in full sun areas, because they may give off too much reflected heat.

## Use of Low Water Demand Plants

You can find many attractive varieties of trees, shrubs, flowers, ground covers, and some types of turf that thrive in dry soil or require very little irrigation. Plants that require frequent watering or maintenance should be clustered together and planted near the house for ease of maintenance. Plants that need less attention can be sited further away.

## Efficient Irrigation Systems

Irrigation in a xeriscape is minimal, and in many cases is used only for establishment purposes. Sprinkler systems can save water in well planned situations. Turf areas are best watered with sprinklers, separated from other zones. Trees, shrubs, flowers and ground covers can be watered with low volume drip, spray or bubble emitters. Install a sensor that will automatically shut your system off if enough moisture is present and adjust your irrigation system regularly to save water and money. Irrigation should be done in the early morning, optimally between 4:00 and 8:00 am. Watering by 10:00 am will allow plants to dry before evening; this will reduce the incidence of disease. For additional guidelines, contact Cooperative Extension for water-wise gardening information.

## Good Maintenance

Periodic checks of the irrigation system, in conjunction with proper pruning, weeding, fertilization, pest management and mulching will preserve the beauty of your xeriscape. Less maintenance is built into the basic principles of xeriscaping.

Even though xeriscape gardens require less maintenance than other plantings, adequate attention to fertility, pruning, weeding and pest management will help your plants maintain their vigor and drought resistant qualities. A well planned and maintained garden is an asset that will beautify your neighborhood, increase your property value, and conserve a precious resource – our water.

# Drought Tolerant Plants for Your Garden

The following plants will tolerate dry conditions once established. Plants marked with \* are also somewhat tolerant of moist soil. Those marked \*\* will tolerate soil that is occasionally very wet. Plants with a + are native to North America.

## Trees

<u>Botanical Name</u>	<u>Common Name</u>
* <i>Acer campestre</i>	Hedge Maple
** <i>Acer tartaricum</i> ssp. <i>ginnala</i>	Amur Maple
* <i>Acer truncatum</i>	Painted Maple
+** <i>Catalpa speciosa</i>	Northern Catalpa
+* <i>Cercis canadensis</i>	Redbud
* <i>Cornus mas</i>	Cornelian Cherry
+* <i>Cotinus obovatus</i>	American Smoke Tree
+* <i>Crataegus phaenopyrum</i>	Washington Hawthorn
+** <i>Crataegus viridis</i> 'Winter King'	Winter King Hawthorn
* <i>Ginkgo biloba</i>	Maidenhair Tree
* <i>Koelreuteria paniculata</i>	Golden Rain Tree
+ <i>Juniperus virginiana</i>	Eastern Red Cedar

<b>Trees, continued</b>	
<b><u>Botanical Name</u></b>	<b><u>Common Name</u></b>
* <i>Malus</i> spp.	Crabapple
+** <i>Nyssa sylvatica</i>	Black Tupelo
* <i>Parrotia persica</i>	Persian Parrotia
<i>Picea abies</i>	Norway Spruce
** <i>Pyrus calleryana</i>	Callery Pear
+ <i>Pinus strobus</i>	White Pine
+** <i>Quercus palustris</i>	Pin Oak
* <i>Styphnolobium japonicum</i>	Japanese Pagoda Tree
* <i>Syringa reticulata</i>	Japanese Tree Lilac
** <i>Ulmus parvifolia</i>	Chinese Elm
* <i>Zelkova serrata</i>	Japanese Zelkova

## **Shrubs**

<b><u>Botanical Name</u></b>	<b><u>Common Name</u></b>
<i>Buddleia davidii</i>	Butterfly Bush
<i>Cytisus praecox</i> 'Allgold'	Warminster Broom
* <i>Hibiscus syriacus</i> 'Diana'	Rose-of-Sharon
+ <i>Hypericum prolificum</i>	Shrubby St. John's-Wort
+** <i>Ilex verticillata</i>	Winterberry
<i>Juniperus chinensis</i> 'Torulosa'	Hollywood Juniper
* <i>Ligustrum</i> spp.	Privet
+* <i>Myrica pennsylvanica</i>	Bayberry
* <i>Philadelphus</i> spp.	Mock Orange
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil
<i>Viburnum carlesii</i> 'Compactum'	Korean Spice Viburnum
<i>Yucca filamentosa</i> 'Golden Sword'	Adam's Needle

## **Annuals**

<b><u>Botanical Name</u></b>	<b><u>Common Name</u></b>
<i>Brachyscome iberidifolia</i>	Swan River Daisy
<i>Catharanthus</i> spp. ( <i>Vinca rosea</i> )	Madagascar Periwinkle
* <i>Cleome hasseleriana</i>	Spider Flower
<i>Gazania</i>	Gazania
<i>Gomphrena</i> 'Strawberry Fields'	Globe Amaranth
<i>Lantana</i>	Lantana
<i>Melampodium</i>	Melampodium
* <i>Mirabilis</i>	Four-o'clock
<i>Nigella</i>	Love in a Mist
<i>Portulaca</i>	Moss Rose
<i>Portulacaria</i>	Portulacaria
<i>Sanvitalia procumbens</i>	Creeping Zinnia
<i>Senecio cineraria</i>	Dusty Miller
<i>Tagetes</i> spp.	Marigold
<i>Thymophylla tenuiloba</i> ( <i>Dyssodia</i> )	Dahlberg Daisy
+ <i>Tithonia</i>	Mexican Sunflower
<i>Tropaeolum</i>	Nasturtium
<i>Verbena laciniata</i> and <i>tenera</i>	Verbena

## Perennials

<b>Botanical Name</b>	<b>Common Name</b>
+ <i>Achillea</i> 'Moonshine', 'Summer Pastels'	Yarrow
<i>Anthemis tinctoria</i>	Golden Marguerite
<i>Artemisia</i> spp.	Wormwood
+* <i>Asclepias</i> spp.	Butterfly Weed, Milkweed
+ <i>Baptisia australis</i>	False Indigo
+ <i>Coreopsis verticillata</i> 'Moonbeam'	Thread-leaved Coreopsis
<i>Dianthus</i> 'Telstar Picotee'	Sweet William
+* <i>Echinacea purpurea</i>	Purple Coneflower
<i>Eragrostis curvula</i>	Lovegrass
+ <i>Gaillardia</i> 'Goblin'	Blanket Flower
+* <i>Gaura lindheimeri</i>	White Gaura
+ <i>Helianthemum</i> spp.	Sun rose
** <i>Hemerocallis</i> spp.	Daylily
* <i>Kniphofia uvaria</i>	Red-hot Poker, Torch Flower
<i>Lavendula</i> 'Hidcote Blue'	Lavender
+ <i>Leucanthemum superbum</i> 'Snow Lady'	Shasta Daisy
<i>Limonium latifolium</i>	Statice
* <i>Liriope</i> spp.	Lilyturf
* <i>Miscanthus sinensis</i> 'Zebrinus'	Zebra Grass
* <i>Miscanthus sinensis</i> 'Silver Feather'	Japanese Silver Grass
+** <i>Monarda didyma</i>	Beebalm
<i>Perovskia atriplicifolia</i>	Russian Sage
+* <i>Rudbeckia fulgida</i> 'Goldstrum'	Coneflower, Black Eyed Susan
<i>Saponaria ocymoides</i>	Soapwort
+* <i>Sedum spectabile</i> 'Autumn Joy', 'Indian Chief'	Showy Stonecrop, Everlasting Stonecrop
* <i>Sedum</i> spp. (some are native)	Stonecrop
+** <i>Solidago x hybrida</i> 'Crown of Rays'	Goldenrod
* <i>Stachys byzantina</i>	Lamb's-ears
* <i>Veronica</i> spp. (some are native)	Speedwell

Source: Cornell Cooperative Extension of Nassau County

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