



### Organic matter will help your soil retain more moisture

Peat moss, composted leaves, kitchen vegetable scraps, and grass clippings will all improve soil structure and enhance moisture-retaining capabilities. Incorporate organic matter into your flower and vegetable beds, preferably 12"-18" deep.



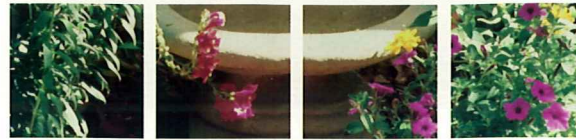
### Drip irrigation and soaker hoses – the best way to water your garden

Use a drip irrigation system or soaker hose in gardens that need the most water: vegetables, fruits, newly planted trees and shrubs, and some flower gardens. A soaker hose is a canvas or rubber hose with perforations. It is most effective when it lies on top or slightly below soil level and mulch is placed over the soil and hose. You can install the hose in the spring and leave it in place all season.

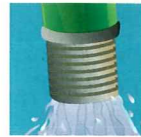
Drip irrigation can use 30%-70% less water than overhead sprinkler systems. In general, use the drip irrigation or soaker hose methods until the soil is moist 3-4 inches below the surface.

### Use rain barrels

Place rain barrels or other large containers under downspouts to collect rain water to use for watering your garden. Use a lid, mesh fabric, or several drops of baby oil on the surface of the water to prevent mosquito breeding.



### For a small garden



Use a hose to apply water very slowly at the base of each plant, not on leaves. Saucer-like basins around each plant help concentrate water where it is most needed – at the plant's roots. Watering by hand is easy when there are saucers to fill up.

### Low water-use plants

There are many varieties of low water-use plants that can withstand dry summers, and actually thrive in drier soil. Remember: all newly planted trees, shrubs, and flowers initially need water to get established. But once established, drought tolerant plantings can survive without extra watering.

MWRA has teamed with EPA's WaterSense program to decrease indoor and outdoor water use through water-efficient products and simple water-saving practices, and to reduce water bills. For more information on WaterSense, and for a full list of labeled products and WaterSense irrigation partners, visit [www.epa.gov/watersense](http://www.epa.gov/watersense).



The Massachusetts Legislature created MWRA in 1985 to manage and modernize water and sewer services for 2.5 million people and 5,500 businesses in 61 communities. While the Boston Harbor Clean-Up and the Integrated Water Supply Improvement Program are the best known projects, MWRA also maintains over 400 miles of water pipes, aqueducts and tunnels and over 240 miles of sewers.



For tips on how to use water more efficiently indoors, see our brochure - **INDOOR WATER CONSERVATION** or call 617-242-SAVE.

**For More Information:**  
Massachusetts Water Resources Authority  
Charlestown Navy Yard, Boston, MA 02129,  
617-242-6000, [www.MWRA.com](http://www.MWRA.com).

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## low water-use plants

COMMON NAME	BOTANICAL NAME	HEIGHT
<b>TREES</b>		
Amur Maple	<i>Acer ginnala</i>	20-25'
Austrian Pine	<i>Pinus nigra</i>	50'
Japanese Black Pine	<i>Pinus thunbergii</i>	6-10'
Cornelian Cherry	<i>Cornus mas</i>	20-25'
London Plane	<i>Platanus x acerifolia</i>	50'
White Oak	<i>Quercus alba</i>	50'
<b>SHRUBS</b>		
Broom	<i>Cytisus scoparius</i>	5-6'
Flowering Quince	<i>Chaenomeles speciosa</i>	6-10'
Junipers	<i>Juniperus sp.</i>	2-9'
Cinquefoil	<i>Potentilla</i>	3-4'
Butterfly Bush	<i>Buddleia davidii</i>	6-10'
Rose-of-Sharon	<i>Hibiscus syriacus 'Diana'</i>	6-8'
Winterberry	<i>Ilex verticillata</i>	8-10'
Mugo Pine (dwarf)	<i>Pinus mugo</i>	3-4'
<b>GROUND COVER</b>		
Bearberry	<i>Arctostaphylos uva-ursi</i>	6-8"
Creeping Lily-turf	<i>Liriope spicata</i>	6-8"
Violets	<i>Viola sp.</i>	6-8"
Snow-in-Summer	<i>Cerastium tomentosum</i>	6-8"
<b>PERENNIALS</b>		
New England Aster	<i>Aster Novae-angliae</i>	15-30"
Common Blanketflower	<i>Gaillardia aristata</i>	24-36"
Moonbeam	<i>Coreopsis verticillata</i>	24-36"
Purple Coneflower	<i>Echinacea purpurea</i>	24-36"
Lavender	<i>Lavandula 'Hidcote Blue'</i>	12-36"
Sedum (Acre, Red Carpet, Ruby Glow, Stolinerum, Spectabile)	<i>Sedum sp.</i>	18-24"
Daylily	<i>Hemerocallis</i>	18-48"
Yarrow, 'The Pearl', 'Summer Pastels'	<i>Achillea sp.</i>	18-36"
<b>ANNUALS/BIENNIALS</b>		
Cosmos	<i>Cosmos sp.</i>	3'
Gazania	<i>Gazania</i>	6-18"
Marigold	<i>Tagetes</i>	4-6"
Portulaca	<i>Portulaca grandiflora</i>	8"
Strawflower	<i>Xerochrysum bracteatum</i>	3'
SweetWilliam	<i>Dianthus barbatus</i>	2'

# OUTDOOR WATER CONSERVATION

TIPS FOR GARDENING & LANDSCAPING



MASSACHUSETTS  
WATER RESOURCES  
AUTHORITY







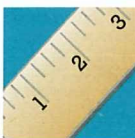
## Summer is an Important Time to Save Water

MWRA water supply is sufficient to meet normal community water demands. However, we tend to use more water in the summer, so there are opportunities to conserve. These tips will show you ways to use water more efficiently outdoors, make garden maintenance easier, and save money.

### Water your lawn only as needed

Frequent light watering can actually weaken your lawn by encouraging shallow roots that are less tolerant of dry periods and more susceptible to insect damage.

Roots can hold plenty of moisture even after several days without rain. Before watering, look for signs that it's needed: patchy areas, a general change in color or footprints that remain in the grass long after being made.



### Test your soil for dryness

Water only when the soil is dry to a depth of 1.5 inches. Make sure the water soaks down 3-4 inches. This encourages deep root growth.



### Timing is critical

The best time to water your lawn is early morning (4-6 am). Watering mid-day will result in a high rate of evaporation and sun-burnt grass, and will leave grass vulnerable to disease from mildew and fungus.



### Give it a rest

If your lawn "fades," don't panic. Grass naturally becomes dormant during hot, dry periods. It will revive quickly after a steady rainfall or in cooler weather.

- One inch of water per week (rain plus watering) should be plenty. Never water when it's windy, rainy or very hot. After heavy rains you may not need to water for 10-14 days.
- Raise the mower blade level to 2-3 inches or more. Longer grass retains more moisture because it shades the roots. It also encourages deeper rooting, requires less fertilizer and competes better against weeds.
- Never water faster than the soil can absorb it. Avoid puddling and runoff.
- Be sure your hose has a shut-off nozzle. A hose without a nozzle can spout 10 gallons or more per minute!
- Don't fertilize in the summer. New growth requires more water. Apply in early spring and/or fall.
- Aerate your soil in the spring and fall to aid water absorption and retention.



### Prepare your new lawn properly

Grass needs at least 3-6 inches of very good topsoil. Rich loam mixed with peat moss or composted leaves will hold moisture and allow for good, deep root development. The kind of grass you grow matters. Lawns planted with fescue grasses do better than bluegrasses during periods of low rainfall and are slower to go dormant.



### Automatic sprinklers

Studies have shown that automatic sprinkler systems often use 20-30% more water than hand-held hose watering. Make sure the timer or "controller" is set to water each landscape zone efficiently. Install a rain or soil moisture sensor that turns the system off when it rains or if moisture is present in the soil.

### Features to look for when selecting an automatic sprinkler system

- At least 3 independent programs to allow for watering different parts of the yard on different days.
- Run times from 1 to 200 minutes.
- 3 start times per program.
- Odd, even, weekly and interval program capability.
- Rain shut-off device capability.



### Tips for landscape, garden and flower care

The amount of water you use (and can save) outdoors depends on how you water as well as the size, type and location of your lawn, shrubs and gardens.

### Plan and design your garden for efficient outdoor watering

Be aware of the various zones in your yard (hot/sunny, cool/shady, moist, dry, etc.) and plan your gardens and plantings accordingly. For example, if you have a hot, dry zone, select plants that can endure hot, dry conditions.

Stones or pebbles are good for shady areas, but give off too much heat when used near the house. Ground covers, such as ivy or pachysandra, also prevent evaporation around established shrubs and ornamental trees.

### Mulch to keep roots cool and moist

Mulch can serve as ground cover that reduces evaporation from soil and reduces the number of weeds that would otherwise compete with the plant for available soil moisture. Mulching reduces water evaporation from soil, and hinders weed growth in a planting bed.

### Cluster plants that require extra care

If you choose shrubs, flowers or vegetables that need lots of moisture, place them near each other. You'll save time and water by watering just one area of your yard.