Water use has doubled in the United States since the 1950's. Fresh water now threatens to displace oil as the most valuable liquid on Earth.

There is an increased consciousness of the need to conserve water. New York State and national lawmakers have enacted legislation mandating additional water conservation in the 1990's.

For homeowners, the increasing stress on water supplies translates into higher water bills. Individuals can easily lower their water consumption by using water-saving methods. The lawn is a good place to start since roughly half the water used in our area is for landscape maintenance. Up to 40% of this water is wasted by overwatering.

Orange County Water Authority

WATER-WISE TIPS FOR LAWNS & GARDENS

We use water outdoors every day!

It is used for:

Landscaping and Gardening

Recreation

Cleaning

Why use water wisely outdoors?

Because water is a valuable resource that we can't afford to waste.

Communities Benefit when everyone uses water carefully.
Learn to do your part!

GREEN LAWNS WITHOUT WASTE

IN THE SUMMER, WE USE 50% MORE WATER THAN DURING THE REST OF THE YEAR, most of which goes to our lawns and gardens. By using water wisely in the summer, you will waste less water while still maintaining a healthy green lawn and garden.

GIVE YOUR SPRINKLER A REST!

Lawns don't need to be watered every day. Watering every three to five days is sufficient, less often if it rains. When you do water, give it a thorough soaking. This will produce a deep root system and stronger grass. Daily watering results in shallow roots and weaker grass. Choose a sprinkler which delivers large flat droplets and which suits the size and shape of your lawn.

IF YOUR GRASS IS GREEN. . . IT DOES NOT NEED WATERING.

Lawns only need a total of 1 inch of water a week. More is not better. To determine how long it takes for your lawn to receive 1 inch of water, place a can under your sprinkler and time how long it takes to fill the can to the required amount.

SUNTANNING AND LAWN WATERING DO NOT MIX!

The best time to water your lawn is during the coolest parts of the day. Watering in the early morning or early evening after the sun has gone down will reduce the amount of water lost to evaporation. Don't water on sunny days. Don't water on windy days.

OCWA

SHORT GRASS BELONGS ON THE GOLF COURSE.

Cut your grass higher than usual and keep it 1 to 3 inches long. Grass this length shades the roots, requires less water and mowing, and allows the root system to become deeper and more water-efficient.

TRADE IN YOUR GRASS.

Ask about "xeriscaping" or "nature-scaping"--replacing your grass with native ground covers and flowers that require little upkeep and are drought-resistant. *For more information call: Cornell Cooperative Extension Garden Helpline M-F 9:30 am - 12:30 pm at 343-0664.*

MAINTAIN YOUR LANDSCAPE PROPERLY.

This includes mowing, mulching and watering, but also--eliminating weak plants; weeding to keep water for plants from going to weeds; controlling pests; fertilizing properly; and pruning.

OTHER WAYS TO CONSERVE WATER OUTDOORS

DON'T LET YOUR POOL GET THIRSTY.

Use a swimming pool cover to prevent evaporation, keep debris out and keep heat in. Keep the water level low enough to avoid splashing water out of the pool.

GIVE YOUR CAR A SPONGE BATH, NOT A SHOWER.

Don't wash your car with a running hose, use a bucket and sponge instead. Then rinse it quickly using a trigger nozzle on your hose. This way you can save water with each wash.

GRASS DOES NOT GROW ON DRIVEWAYS. . . SO WHY WATER THEM?

Never use your hose to clean your driveway or sidewalk. Use a broom instead. We use 50% more water in summer than during the rest of the year!

WATER EFFICIENCY FOR YOUR HOME

You can save a lot of water, energy and money by using water efficiently. If your water use is anywhere near the national average, you can probably save a third or more of the water you now use at home.

We waste water both by practicing bad habits, like leaving the water running when we brush out teeth, and by using antiquated equipment. Bad habits can be difficult to change, but new ones can save thousands of gallons of water per year per person.

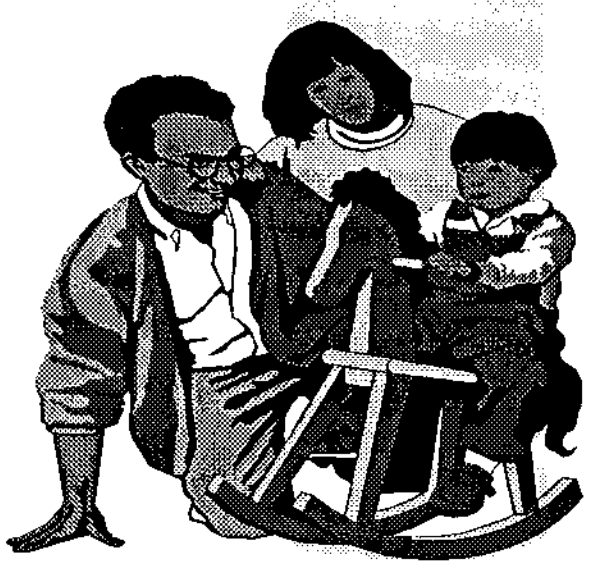
Orange County Water Authority

SAVE WATER

PO Box 997, Goshen, NY 10924

WATER CONSERVATION FOR EVERYONE

The earth is covered with water, yet only 1% is available for drinking. Unfortunately, many of us take this small percentage for granted. The average adult needs only 2-1/2 quarts of water per day to maintain health, but in the United States, we each use as much as 125 to 150 gallons per day for cooking, washing, flushing, and watering. That's over 40% more water than we need to accomplish these tasks. Our wasteful habits not only deplete clean water reserves faster than we can replenish them, but they pollute many waterways. By following a few simple steps, a typical family of four can save an astounding 50,000 to 100,000 gallons of water per year!



taking water conservation outdoors

*Mow your lawn with water retention in mind. Set mower blades on a high setting (2-3 inch grass length as opposed to golf-course short) to provide natural ground shade and promote water retention by the soil.

*Water lawn and garden in the morning when evaporation is lowest.

*Water no more than 1 inch per week, applied slowly to prevent runoff. Place several empty cans around the yard when watering to determine how long it will take to water 1 inch.

*Collect rainwater for watering plants using a barrel covered with a screen.

*Plant indigenous species suited to your area and save as much as 54% of the water used to care for outdoor plants. *Call Cornell Cooperative Extension Garden Helpline at 343-0664 (M-F 9:30 am to 12:30 pm) for plant and grass species that require less water.*

*When washing your car, turn off the hose between rinses to save up to 150 gallons per washing.

*Sweep down decks and driveways instead of hosing them down.

WATER CONSERVATION IN EVERY ROOM OF THE HOUSE

In The Kitchen

*When cooking, save 10-15 gallons of water per meal by peeling and cleaning vegetables in a large bowl of water instead of under the running tap.

*When handwashing dishes, save 15 gallons of water by soaking dirty dishes in basin, then rinse.

*Run full-load dishwashers to save 15 gallons per load and hot water costs, too.

*When buying a new dishwasher, select one with a "light-wash" option. Newer models use 20% less water.

On Wash Day

*When purchasing a new washing machine, buy a water-saving model that can be adjusted to load-size and has a "suds-saving" option. New models use 40% less water than older models.

*For old and new machines, run full loads only.

In the Bathroom

*Take short showers instead of baths. Showers use an average of 5 to 7 gallons per minute, 3 times less than the water used to take a bath.

*Install a low-flow showerhead. This will cut water use to 3 gallons per minute and still provide an invigorating flow.

*Repair leaky toilets to save more than 50 gallons of water per day. Add 12 drops of food coloring into the tank. If color appears in the bowl one hour later, the unit is leaking.

*Install a toilet displacement device and save 0.5 to 1 gallon per flush.

*When buying a new toilet, select a low-flush model that uses less than 1-1/2 gallons of water to flush.

*Turn off water to brush teeth, shave, and soap up in the shower. Filling the sink to shave uses only 1 gallon, while letting the water run can use 10 gallons per shave or more. Turning off the water when you brush your teeth can save 4 gallons of water each time.

Hazardous Waste That Pollutes Your Drinking Water

Save This List for Future Reference

aerosol cans	jewelry cleaner
antifreeze	laundry stain remover
asphalt & roofing tar	lighter fluid
automatic transmission fluid	metal polish
batteries/battery acid	mothballs
brake fluid	motor oil & waste oils
bug & tar removers	nail polish
car wax & polish	oven cleaner
cesspool cleaner	paint, varnish, stain, dye
degreasers	paint & lacquer thinners
disinfectant	paint & varnish removers
drain cleaner	paint brush cleaner
engine/radiator flushes	pesticides
flea collars	photochemicals
floor strippers & polishes	poisons
fungicide	refrigerant
furniture polishes	rock salt
furniture strippers	rustproofers
glues	solvents
gasoline, kerosene	spot remover fluid
grease, lubes	swimming pool chlorine
heating oil, diesel fuel	turpentine
herbicide	varnish
household cleaners	weed killer
insecticide	wood preservative

Use These Items Carefully.

Dispose of them--and their used containers--only at designated hazardous waste collection or recycling centers.

OCWA

protecting water supply

Help OCWA Protect Water Supply

Are You Poisoning Your Water?

If someone were to drop a poisonous substance into your community's water supply, the act would be considered a serious crime and a state of public emergency would be declared.

But when you dump a can of paint thinner down the drain or throw out an old car battery with the trash, no alarms are sounded, no news flashes are issued. Yet, the impact on your water resources could be just as disastrous.

This is not a far-fetched statement. The average household contains between three and ten gallons of materials that are hazardous to human health or to the natural environment. Collectively, these materials can poison our water if they are not stored carefully and disposed of properly.

This brochure describes some preventive measures you can take in your home to reduce the quantity of waste you must dispose.

Reduce the Amount Take Care of the Waste

You do not need a Ph.D. in chemistry to reduce the use of hazardous waste in your home. The following suggestions can help:

* Before you buy a product, read the label and make sure that it will do what you want. Once you buy something, you are also responsible for disposing of it properly.

* Do not buy more than you need. That way, you will not need to dispose of the surplus.

* Read and follow directions on how to use a product and dispose of the container. Recycling is an excellent way of handling hazardous wastes. Take them to a licensed contractor or recycling agency listed in the yellow pages. Your local wastewater treatment operator can give you more information on the disposal of liquid waste; your local sanitation department can give you more information on the disposal of solid wastes.

* Use safer substitutes when they are available.

Home Alternatives to Household Cleaning

Cleaners: Strong--Mix 1/2 cup ammonia and 1/3 cup washing soda into a gallon of warm water. Use as needed on painted, ceramic or appliance surfaces, or to wash tile floors (not for use on aluminum). Rinse with clear water after using. Use in well ventilated room, protect hands with gloves.

Mild--Dissolve 4 tablespoons baking soda in 1 quart warm water. Or use baking soda on a damp sponge. Baking soda will clean and deodorize all kitchen and bathroom surfaces.

Drain Cleaner: Pour 1/2 cup each of baking soda, vinegar and boiling water down clogged drains; use a plunger or metal snake; flush weekly with boiling water to prevent clogs; use drain strainer.

Oven Cleaner: Sprinkle on baking soda and water; pour salt on spills while warm, scrub next day. For bigger cleanup, fill a spray bottle with equal parts ammonia and water. Spray on, close door and leave several hours or overnight. Wipe clean with wet cloth.

Window Cleaner: Use 1 cup vinegar in 1 quart of water; rub dry with newspaper to remove grease, or, use 1 teaspoon ammonia in 1 quart of water.

Who Reaps The Benefits of Xeriscape?

The Individual
- Increased property value
- Reduced maintenance costs
- Improved home salability
- Reduced drought damage or loss
- Reduced water bills

The Local Community
- Improved community aesthetics
- Reduced cost of maintenance
- Enhanced regional identity
- Reduced drought damage or loss
- Reduced air pollution
- Reduced groundwater contamination
- Increased community pride
- Reduced landfill costs
- Reduced damage to streets/drainage

The Utility
- More reliable water supply
- Reduced costs of operations
  - chemical costs, energy costs
  - sludge disposal costs
  - site-maintenance costs
- Reduced peak demands
- Shared program costs
- Positive community relations

The Global Community
- Reduced global warming
- Reduced desertification
- Reduced loss to natural ecosystems
- Protection of estuaries/streams/lakes

Recommended Resource for Xeriscape Gardeners:
Xeriscape Gardening by Ellefson, Stephens, Welsh
Macmillan Publishing Company, New York 1992
866 Third Avenue, New York, NY 10022
ISBN: 0-02-614125-6

Orange County Water Authority
Post Office Box 997
Goshen, New York 10924

What is Xeriscape Landscaping?

Xeriscape
OCWA
Saves Water

Let the outdoor environment you create around your home echo the natural world of your region, and you'll reap countless rewards, including simplifying your life and adding restful beauty.

This welcome approach to low-maintenance landscaping and water efficient landscaping can result in a 20% to 80% savings in landscape water usage.

Be a Xeriscape Gardener

Seven Xeriscape Landscaping Principles

The cornerstone of Xeriscape landscaping is the seven basic principles essential to a good Xeriscape design. Successful landscaping for water conservation incorporates all of these steps; changing turf areas without changing watering routines is hardly useful, as is planting lower-water-demanding plants without understanding how they need to be maintained in order to become established and thrive.

1. **Planning and design**
2. **Soil analysis and improvements**
3. **Practical turf areas**
4. **Appropriate plant selection**
5. **Efficient irrigation**
6. **Mulching**
7. **Appropriate maintenance**

Water Conserving Plants for the Northeast

Grasses

Tall fescues and perennial ryegrass are more tolerant of low water conditions. Once established, they are also more wear tolerant, and grow on a variety of soil types. They generally require less fertilizer. The best time to establish a lawn with tall fescue is in mid-August. Spring seedlings are an option but are not recommended. Tall fescue takes longer to establish, so do not seed too late in the fall.

Natural Rainfall

Deciduous Trees

tatarian maple	downy serviceberry
paper birch	gray birch
shagbark hickory	bittemut hickory
mockernut hickory	northern catalpa
cockspur hawthorn	downy hawthorn
Washington hawthorn	frosted hawthorn
dotted hawthorn	flowering crab apple
American hophornbeam	amur cork tree
wild red cherry, pin cherry	common hop tree
white oak	scarlet oak
northern pin oak	chestnut oak
chinkapin oak	red oak
black oak	Japanese tree lilac
littleleaf linden, basswood	American elm

Evergreen Trees

white fir	veich fir
norway spruce	white spruce
bristlecone pine	jack pine
swiss stone pine	red pine
pitch pine	

Deciduous Shrubs

alternate leaf butterfly bush	peashrub
bladder senna	sweetfern
huckleberry	Kalm's St. Johnswort
beautybush	privet
sargent crab apple	mock orange
rose rhododendron	Carolina rose
Father Hugo rose	Prairie willow
American alder	russet buffaloberry
lowbush blueberry	
Korean spice viburnum	Rafinesque viburnum

Evergreen Shrubs

Carolina rhododendron

Ground Covers

Spurge	goldmoss sedum
mountain sedum	stonecrop

Perennials

thrift	showy milkweed
savory-leaved aster	New York aster
yellow false indigo	Herb Robert
prairie smoke	shore grindelia
sharp-lobed hepatica	round-lobed hepatica
wood lily	wild lupine
hooker evening primrose	violet wood sorrel
violet wood sorrel	white penstemon
early meadow rue	sierra meadow rue
mullein	woolly speedwell
Canada violet	blue violet
butterfly violet	bird's foot-violet
California violet	

Vines

American bittersweet	rock clematis
virginsbower	limber honeysuckle
Virginia creeper, woodbine	riverbank grape

Occasional Watering

Deciduous Trees

striped maple	red maple
silver maple	sugar maple
black maple	mountain maple
sweet birch	European birch
hornbeam	redbud/Judas tree
American beech	white ash
butternut	eastern black walnut
black gum	American plane tree
white poplar	eastern cottonwood
eastern poplar	quaking aspen
Korean mountain ash	

Evergreen Trees & Shrubs

American holly	white spruce
white pine	mountain laurel
Canadian yew	

Deciduous Shrubs

shadblow	
allegheny serviceberry	silky dogwood
cornelian cherry	beaked filbert
Altantic leatherwood	witch hazel
scarlet elder	Mapleleaf
hobblebush, witherod	arrowood viburnum
highbush blueberry	American cranberry

Ground Covers

Lily-of-the-valley	winterberry
checkerberry wintergreen	birdsfoot trefoil
partridgeberry	periwinkle

Vines

purple wisteria