



Irrigation Consumer Handbook

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How you water your garden or yard affects more just your property. Using water wisely

- Saves money on your utility bill.
- Nurtures green spaces that deliver real environmental benefits.
- Protects your community's water supply for generations to come.
- Minimizes needed investments in infrastructure to store and carry water, which must be paid for by property taxes or municipal bonds.

Automatic watering or sprinkler systems — known in the trade as irrigation systems — deliver exactly the right amount of water at the right time. Efficient irrigation systems:

- Minimize overwatering while keeping your lawn and garden beautiful and healthy.
- Adjust watering automatically to account for rain and other conditions.
- Put every drop of water to work by minimizing evaporation and waste.
- Make maintaining your yard easy and convenient.

With just a few simple strategies, it's easy to save water, save money and see better results.

Plant Right

Saving water doesn't have to involve the cost and inconvenience of tearing up your yard to install a new irrigation system. It's easy to save water and reduce your utility bills with simple changes to your landscaping and gardening routine.

- **Landscape to suit your lot.** Choose grass or plants that have low water requirements and will thrive in your local climate. Consider your lot's exact features, including sun and shade, dry and damp areas, plant size, and how you plan to use each section of your yard.
- **Keep soil healthy.** Aerating your lawn and around trees at least once a year helps improve water penetration. When planting, turn and cultivate the soil and add compost or fertilizer to improve moisture retention and grow healthier plants that need less water to stay strong.
- **Mulch well around plants, bushes and trees.** Using 2 to 4 inches of mulch reduces evaporation, moderates spikes and lows in soil temperatures, improves water penetration and helps control weeds that compete for water.
- **"Hydro-zone" your yard.** Grouping plants with similar moisture needs in the same area makes it easier to make sure they get the water they need without overwatering. Separate plants from grassy areas, which have different water requirements.
- **Plant in spring or fall.** Avoid summer, when hotter temperatures mean plants need more water to become established.
- **Save grass for functional areas.** Plant grass in play zones and other areas where it will be used and enjoyed. Instead of planting turf on steep slopes or other hard-to-water spaces, consider ground cover, perimeter plants or mulch.
- **Plant shade trees.** The shade they cast creates natural "air-conditioning," lowering air and soil temperatures, and reducing soil moisture loss.

- **Maintain your yard regularly.** A well-maintained yard requires less water, so weed, prune and mow as needed.

Invest in an Irrigation System

Using an automated irrigation system is one of the best ways to keep your lawn and landscape beautiful and healthy, while minimizing water waste. Plan carefully for a reliable, flexible irrigation system that can grow and evolve along with your landscaping.

- **Use components that provide flexibility.** Different plants have different watering needs, and these needs may change over time. Your system should allow you to apply the right amount of water for each type of plant by the most effective method.
- **Install excess capacity.** Irrigation zones are areas that are watered by the same irrigation valve and plumbing. Installing extra connections now makes it easier and less expensive to expand your irrigation system later.
- **Think smart.** Include “smart” controls that automatically adjust watering based on rain, soil moisture, evaporation and plant water use.
- **Check water pressure.** Low or high pressure can seriously affect sprinkler performance; choose sprinklers based on the water pressure on your site.
- **Buy the best.** Use the best components you can afford to minimize future maintenance and total lifetime cost of your system.
- **Meet code requirements.** Include the right backflow prevention device for your area. Required by the National Plumbing Code for all irrigation systems, backflow prevention devices prevent irrigation system water from contaminating the water supply.
- **Dig deep.** Install lines deep enough to protect them from damage from aeration and other lawn maintenance.
- **Look for savings.** Many water utilities offer rebates for certain water-efficient products. Before finalizing your new system, consult with your local water provider.
- **Hire carefully.** Even the best irrigation system won’t perform well if installed incorrectly. When looking to hire a designer or contractor, always get multiple bids, check references and confirm all vendors are insured.

Water Wisely

Today’s irrigation systems include sophisticated controllers that allow you to easily adjust watering schedules to fit different needs.

- **Get in the zone.** Schedule each individual zone in your irrigation system to account for type of sprinkler, sun or shade exposure, and soil in that section. Different zones will almost always need different watering schedules.
- **Consider soil type.** Type of soil determines how quickly water can be absorbed without runoff. Watering more than soil can absorb causes runoff and waste.
- **Don’t send water down the drain.** Set sprinklers to water plants, not your driveway, sidewalk, patio or buildings.
- **Water only when needed.** Saturate root zones and let the soil dry. Watering too much and too frequently results in shallow roots, weed growth, disease and fungus.

- **Water at the best time.** Watering during the heat of the day may cause losses of up to 30 percent due to evaporation. Prevent water loss by watering when the sun is low or down, winds are calm and temperatures are cool — typically between the evening and early morning.
- **Water more often for shorter periods.** For example, setting your system to run for three, 5-minute intervals lets soil absorb more water than watering for 15 minutes at one time, reducing runoff.
- **Adapt watering to the season.** Familiarize yourself with the settings on your irrigation controller and adjust the watering schedule regularly based on seasonal weather conditions. Or invest in a smart controller so your system can make these changes automatically.

Maintain & Upgrade Your System

Irrigation systems need regular maintenance to keep them working efficiently year after year. Damage from lawn equipment or improper winterization can cause leaks and other serious problems.

- **Inspect your system monthly.** Check for leaks, broken or clogged sprinkler heads, and other problems. Clean clogged screens and micro-irrigation filters as needed.
- **Adjust sprinkler heads.** Remove or correct obstructions that prevent sprinklers from distributing water evenly. Adjust sprinkler head positions and spray patterns to avoid watering sidewalks or structures and to provide necessary clearance over growing plants.
- **Check the pressure.** Pressure can change over time and negatively affect system efficiency.
- **Inspect the system for leaks.** Leaks are a huge water waster. A good contractor can perform regular maintenance checks for leaks, broken or clogged spray heads, and other problems. Ask them to show you common problems to watch for between visits.
- **Install a rain shutoff switch.** These inexpensive sensors can be retrofitted to almost any system and help compensate for natural rainfall by turning off your system in rainy weather.
- **Consider “smart” technology.** Climate or soil moisture sensor-based controllers evaluate weather or soil moisture conditions and then automatically adjust the irrigation schedule to meet the specific needs of your landscape.
- **Consider low volume, micro-irrigation for gardens, trees and shrubs.** Drip (or trickle) irrigation, micro spray jets, micro-sprinklers and bubbler irrigation all apply a very small amount of water, slowly and precisely, minimizing evaporation, runoff and overspray.
- **Have your system audited.** Hire a professional to conduct an irrigation audit and uniformity test to verify areas are being watered evenly and appropriately, and make necessary adjustments.
- **Look for savings.** Many water utilities offer rebates for certain water-efficient products. Before upgrading your new system, consult with your local water provider.
- **Winterize in colder climates.** An irrigation contractor with specialized equipment will flush out water that could freeze and crack pipes, valves and sprinklers.

Work With an Irrigation Professional

Even the best irrigation design won't perform well if installed incorrectly or using inferior components. Make sure your system will operate at peak efficiency for years to come by working with an irrigation expert who:

- Has specialized understanding of irrigation principles, technology and techniques.
- Understands local environmental conditions and can help you choose low water plants and grass that will flourish in your climate and lot.
- Will ensure your system complies with local building codes for licensing, backflow prevention, installation and more.

No matter how small or large your project, always get multiple bids, check references and confirm your preferred vendor is properly insured.

[Find a certified professional](#) for your irrigation project.