

101 Ways to Conserve Water



Water conservation is gaining importance based on the impact it can have on everything from the bottom line to employee motivation and an organization's place in society. ●● **The act of conservation itself is far reaching, and should involve collecting water audit data and gathering metrics on an ongoing basis, installing water-efficient fixtures, establishing water-aware procedures and changing behaviors and expectations about water usage.** ●●

Although our list of 101 ways to conserve water just scratches the surface of what can be done, it will get you well on your way. **We applaud your effort!**

1. Create a water conservation program with goals and expectations.
2. Conduct a water audit to measure water use in different areas of your facility, and then develop a plan for the areas with large or inefficient usage.
3. Install water meters or submeters to measure water throughout your site.
4. Test and adjust sprinkler heads as needed so only plants are being watered, not sidewalks, streets and parking lots.
5. Adjust your irrigation watering schedule based on seasonality. *
6. Use dams or water-filled plastic containers as displacement devices in tank toilets.
7. Create irrigation hydrozones by placing plants with similar watering needs together.
8. Consider areas where cold water only can be used; be sure to post signs so people don't run water waiting for it to heat up.

9. Establish a water budget against which you can compare actual usage, particularly for landscape irrigation.
10. Install limit switches on tanks to eliminate over-filling.
11. Measure moisture at the root level of plants not the surface to determine watering needs. *
12. Regularly inspect all meters, controls, valves and other devices for leaks and improper settings.
13. Generate employee awareness and participation in water conservation efforts.
14. Locate and fix leaky faucets, faulty fittings and broken pipes and hoses.
15. Install metered, self-closing and automated sensor faucets.
16. Match quality of water needed with the task; cooling towers, for instance, can use reused rinse water.
17. Install on-demand water heaters in little used areas to avoid water being run while waiting for it to heat up.
18. Retrofit faucets to flow at 2 gallons per minute or less.
19. Install flow restrictors to ensure a constant flow throughout a range of water pressures.
20. Retrofit toilets and urinals with flush valves that decrease the volume of water used.
21. Work with your cooling tower vendor to maximize the cycles of concentration, possibly increasing the number of cycles to as many as six.
22. Install interlock solenoid valves with power switches or time clocks to shut off water flow when equipment is not in use.
23. Retrofit showerheads with water-conserving models or aerators.
24. Reduce evaporation by only watering landscapes in the early morning or late at night. *
25. Once metered flow has been reduced to manufacturer specifications, experiment with slightly reduced flow rates to further improve efficiency.
26. Ensure water pressure is only as high as necessary; contact your local water utility for help measuring the pressure at key delivery and usage points.
27. Set up a regular schedule to thoroughly check all water usage points for leaks and other potential issues (restrooms, shower facilities, kitchens, janitor closets, water fountains, water lines, process plumbing, landscape irrigation, etc.).
28. Install a web-based system that enables the centralized management of all irrigation systems, even at multiple locations. *
29. Close down any under-utilized water-using areas.



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30. Replace toilets with ultra low volume models.
31. Recalibrate machinery and water flows to perform to the manufacturers' original specifications.
32. Require the use of a broom or leaf blowers instead of hosing down sidewalks, parking lots and other hardscapes.
33. Install temperature control valves.
34. Lessen the frequency with which vehicles are washed.
35. Eliminate sprinklers with a fine mist that waste water due to wind drift. *
36. Where water use is periodic, install timers to automatically shut off water flow.
37. Determine where water used for one process can be used later for another; for instance, use collected rainwater or reclaimed municipal water for landscape irrigation.
38. Replace an ice cube-making machine with an ice flake machine.
39. Adjust irrigation timers to eliminate unnecessary watering after rainfall. *
40. Install hose nozzles that automatically shut off when not in use.
41. Check tank toilets for leaks by conducting a dye-tablet test.
42. Replace a water-cooled ice maker, frozen yogurt or soft-serve ice cream machine with an air-cooled version.
43. Install an irrigation timer to schedule watering times and durations. *
44. Eliminate wet carpet cleaning in favor of steam or powder methods.
45. Ensure your boiler or steam system returns steam condensate to the boiler to save both energy and water.
46. Choose low-water-use plants and shrubs instead of high-water-use turf.
47. Wash windows only when necessary rather than on a strict schedule.
48. Use portable high-pressure pumps to reduce the volume needed.
49. Where possible use high-pressure, low-volume sprays.
50. Place shut-off valves in freeze-protected sites to prevent water lines freezing rather than running water continuously.
51. Install spring-loaded valves or timers on all manually operated hoses.
52. Channel dishwasher wastewater to the garbage disposer and food scrapping troughs.

53. Consider using ozone as a cooling tower treatment to reduce water used for make-up.
54. Get irrigation installation and maintenance assistance from a professional certified in a water efficiency program such as from EPA's WaterSense or an irrigation association.
55. Process wastewater to clean areas requiring grease removal.
56. Don't water when it's windy or raining. *
57. Read water meters monthly and compare results to previous years to find leaks.
58. Install ultra-low toilets.
59. Concentrate watering on the root area of plants, not on trunks and leaves. *
60. Encourage employees to contribute to a water conservation suggestion box.
61. Use mulch around landscape plants to reduce evaporation and weed growth.
62. Shut off the water supply to equipment in areas not currently in use.
63. Retrofit spray heads used for watering trees, shrubs and plant beds with low-flow, low-volume irrigation such as drip irrigation.
64. Do not over-fertilize or over-prune your plants.
65. Replace single-pass cooling systems with an air-cooled one.
66. Where significant laundering occurs, install a reclamation system that recycles both rinse water and wash water for use in initial wash cycles.
67. Remove weeds and unhealthy plants so water is productively used.
68. Presoak dishes rather than using running water.
69. Replace faucets with models that control the length of time water can run and prevent water flow when not in use.
70. Inspect plants regularly for stress indicating under-watering. *
71. Adhere to manufacturer recommendations for irrigation sprinkler head spacing to ensure heads have matched trajectories and offer head-to-head coverage.
72. Clean floors using brooms and wet rags, not hoses.
73. Replace existing faucets with metered valve faucets that deliver a preset amount of water before shutting off.
74. Turn your landscape maintenance professionals into pros by sending them to courses offered by the EPA, manufacturer of your irrigation system, or an irrigation association course.



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- 75.** Run only full loads of laundry.
- 76.** Run only full loads in the dishwasher.
- 77.** Install flow rate monitoring equipment that interrupts irrigation if excess flow is detected.
- 78.** Consider installing foot triggers on faucets that are not regularly in use.
- 79.** Keep a detailed log of cooling tower make-up and blowdown quantities, conductivity and cycles of concentration and monitor trends to spot any performance degradation.
- 80.** Use the refrigerator to thaw frozen foods rather than under running water.
- 81.** Make sure sprinkler heads aren't blocked by tall grass or other nearby plants.
- 82.** Replace existing faucets with self-closing faucets that automatically shut off when the user releases the knob.
- 83.** Where significant laundering occurs, install a rinse water reclamation system to divert rinse water to a storage tank for reuse as wash water.
- 84.** Install ultra-low gallon per minute aerators on all faucets.
- 85.** Install separate valves for turf and for other types of plants to ensure that each type of plant material receives only the amount of water it needs. *
- 86.** Encourage employees to report leaks by recognizing and validating all input.
- 87.** Regularly inspect your irrigation system for broken sprinkler heads, broken pipes and other leaky, dirty or damaged components.
- 88.** Bleed-off cooling towers on a continuous basis rather than by the batch method that can lead to wide fluctuations in the conductivity.
- 89.** Plant water-wise plants and use a drip or smart irrigation system in any small area as it's virtually impossible to efficiently water turf in small spaces.
- 90.** Equip cooling towers with overflow alarms.
- 91.** Hire a qualified irrigation auditor to conduct a complete audit of your system at least every three years to expose deficiencies or identify new technologies.
- 92.** Replace existing faucets with infrared and ultrasonic sensor faucets that shut off when hands are removed from underneath.
- 93.** Install water efficient sprinkler heads on all irrigation systems.
- 94.** Regularly check boiler or steam system traps and lines for leaks and make repairs quickly.
- 95.** Restrict decorative outdoor fountains to run during work-hours only.

- 96.** Water plants deeply and less frequently instead of lightly every day. *
- 97.** Install an automatic control for your boiler or steam system to turn off the unit when not in use.
- 98.** Separately meter your cooling tower so you know how much water you're using and can ensure you don't pay sewer charges on cooling tower water being lost to irrigation.
- 99.** Avoid over-watering by replacing timer-based, manually programmed irrigation controllers with an EPA WaterSense labeled weather-based irrigation controller such as HydroPoint's WeatherTRAK.
- 100.** Properly insulate all cooling tower piping, including chillers and storage tanks, if installed.
- 101.** Avoid surface runoff by separating irrigation events (cycle and soak) into multiple applications depending on soil type and steepness of slope. *



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