Water conservation & gardening

Fast facts

According to the Fourth National Climate Assessment, a federally mandated report that is delivered to the U.S. Congress every four years (https://nca2018.globalchange.gov/):

> "Rising air and water temperatures and changes in precipitation are intensifying droughts, increasing heavy downpours, reducing snowpack, and causing declines in surface water quality, with varying impacts across regions. Future warming will add to the stress on water supplies and adversely impact the availability of water in parts of the United States."

While many major factors affect our environment, small home gardens also have an important place in our ecology. Below are some tips for gardeners to increase their green thumbprint while gardening, and a DIY guide for creating your own water barrel to increase water conservation efforts in your home and yard.

More about Water Conservation & Gardening

- Why Gardeners Care (https://www.nwf.org/Our-Work/Environmental-Threats/Climate-Change/Greenhouse-Gases/Gardening-for-Climate-Change#section-1): Higher average temperatures and shifting precipitation patterns are causing plants to bloom earlier, creating unpredictable growing seasons.
- The maps showing the "Shifts in U.S. planting zones between 1971-2000 and 1981-2010" (https://noaa.maps.arcgis.com/apps/MapSeries/index.html?appid=5f617f338eb5431eb3700e8685eccaf7) can help you see how planting zones where you live may have shifted over the past few decades in response to the warming climate.
- Invasive, non-native plants' and animals' ranges are expanding and making them more apt to take advantage of weakened ecosystems and outcompete native species. Some of the most problematic species, including kudzu, garlic mustard, and purple loosestrife, may thrive under new conditions and move into new areas.
- Important connections between pollinators, breeding birds, insects, and other wildlife and the plants they depend on will be disrupted with habitat loss, disease, and pesticides. Pollinators such as hummingbirds and bees may arrive either too early or too late to feed on the flowers on which they normally rely. We can all aid in the recovery of these species. To find out ways you can help, the National Wildlife Federation provided tips on their Pollinator Recovery webpage (https://www.nwf.org/Garden-for-Wildlife/About/National-Initiatives/Pollinators).

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Tips for Saving Water in Your Backyard & Community

- **Improving your energy efficiency** (https://www.nwf.org/Get-Involved/Live-Green/Energy-Conservation): Using energy-efficient products and reducing your household's energy consumption will reduce your contribution to carbon pollution. In your front and back yards, you can replace outdoor light bulbs with high-efficiency LED bulbs, install outdoor automatic light timers, or purchase solar-powered garden products.
- **Reducing the use of gasoline-powered yard tools** (https://www.nwf.org/Get-Involved/Live-Green/Energy-Conservation): You can avoid using gasoline-powered tools such as lawn mowers and leaf blowers. Instead, you can use human-powered tools such as push mowers, hand clippers, and rakes, or you can reduce the amount of lawn area that needs maintenance. Using a gasoline-powered mower for an hour pollutes 10 to 12 times more than the average automobile.
- **Reducing invasive species expansion and incorporating diverse native species** (https://www.nwf.org/Garden-for-Wildlife/About/Native-Plants): Native plants help to maintain important pollinator connections and ensure food sources for wildlife. Non-native plants can outcompete these important native species for habitat and food. Removing invasive plants from your garden and choosing an array of native alternatives can minimize the threat of invasive species expansion. You can also contact your local or state native plant society to find out what plants are native to your area.
- **Reducing water consumption** (https://www.nwf.org/Get-Involved/Live-Green/Water-Conservation): There are a number of ways to reduce water consumption in your garden, which is particularly important during increased heat waves and droughts. These ways include mulching, installing rain barrels, adjusting your watering schedule, and using drip irrigation. Practices like mulching also provide nutrients to the soil, reducing the need for chemical fertilizers, which take significant amounts of energy to produce.
- **Composting kitchen and garden waste** (https://www.nwf.org/Garden-for-Wildlife/Sustainability/Soil-Water-Conservation/Worm-Compost-Bin): Composting this waste can significantly reduce your contribution to carbon pollution, especially methane, a highly potent greenhouse gas. Composting also provides an excellent source of nutrients for your garden, reducing the need for chemical fertilizers.
- **Planting trees to absorb carbon dioxide** (https://www.nwf.org/Trees-for-Wildlife/About/Trees-Make-a-Difference): Trees can absorb and store as much as a ton of carbon pollution (CO_2) from the atmosphere. If every one of America's 85 million gardening households planted just one young shade tree in their yard or community, those trees would absorb more than 2 million tons of CO_2 each year. Shade trees planted near your home can also reduce energy used for cooling in the summer.

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Rain Barrel Resource Guide

Using a rain barrel to harvest water is a productive way to conserve water and reduce run-off that can pollute the rivers and aquifer. The City of Spokane provides a guide to create your own rain barrel: https://static.spokanecity.org/documents/publicworks/water/rain-barrel-guide.pdf