



WATER RULES

In Texas, conservation increasingly the law of the land

Photo by
Leslie Lee, Texas Water
Resources Institute.

Thanks to changes in Texas laws and city ordinances and rebates, state and local policies are catching up with water conservation practices, saving homeowners' water and money.

Today these laws, ordinances and rebates promote outdoor landscape conservation through activities such as encouraging xeriscaping, offering rainwater harvesting rebates and conducting free irrigation system audits.

Municipalities are also working to increase in-home conservation by offering free toilets and showerheads, plumbing repair programs and free water system check-ups.

Water-conserving landscapes

In its continued effort to promote landscape water conservation, the 83rd Texas Legislature passed Senate Bill 198 banning homeowner associations from prohibiting or restricting property owners from using drought-resistant landscaping or water-conserving natural turf. The association can still require the owners to submit a detailed description of their plans to ensure aesthetic compatibility with other landscaping in the subdivision.

This recent legislation follows a 2003 law that

stated homeowner associations may not prohibit or restrict a homeowner from installing outdoor water-conservation measures such as rainwater harvesting systems, drip irrigation and composting. The associations can regulate the size, type, shielding and materials used and the location of the different systems. That law also allowed the associations to restrict the types of new turf property owners could plant, to encourage or require water-conserving turf.

Many water providers and municipalities in Texas offer rebates and incentives to promote water-efficient landscapes.

For example, the San Antonio Water System (SAWS) offers \$100 coupons to local nurseries for residents who replace parts of their traditional lawns with certain drought-tolerant plants. Austin Water offers residential properties \$25 for every 100 square feet of healthy turfgrass converted to native plant beds with a maximum rebate amount of \$1,250. Dallas Water Utilities offers free irrigation system check-ups. El Paso, known for its aggressive promotion of water conservation, paid residents for years to replace their grass with gravel, cement or native plants. ⇨



Rainwater harvesting can provide water for drought-resistant landscapes. Photo by Leslie Lee, Texas Water Resources Institute.

As the drought lingers, more Texas cities and water providers are instituting stricter outdoor watering ordinances. El Paso Water Utilities' water conservation ordinance mandates year-round restrictions, including 3-day-a-week watering and certain times for watering. Austin allows only once-a-week watering with automatic irrigation systems and once-a-week watering with hoses.

To better enforce these ordinances, a new law gives municipalities the ability to bring civil actions against violators. Previously, they had to enforce these violations through criminal proceedings. Many cities turn off water to the irrigation system after repeated offenses.

Rainwater harvesting

In 2011, the Legislature passed several laws relating to rainwater harvesting systems that are connected to public water systems. For example, a rainwater harvesting system used for potable indoor purposes and connected to a public water system is required to have safeguards ensuring harvested rainwater does not contaminate the public water supply. The homeowner must also notify the water provider or municipality before installing the system, and the system has to be installed and maintained by a licensed plumber who is also a water supply protection specialist.

The Texas Commission on Environmental Quality (TCEQ), the state agency that sets drinking water standards, does not set minimum treatment requirements for rainwater except in situations where it will be used as a source for a public drinking water system. It does not regulate nonpotable uses of rainwater.

In 2013, the Texas Legislature added a few more regulations for rainwater harvesting. Now, any privately owned rainwater harvesting system that holds more than 500 gallons and has an additional water source, such as from the public water system, must have a mechanism for ensuring physical separation between the rainwater system and the auxiliary supply to prevent any possible contamination.

Rainwater harvesting and other water-efficient management practices are now mandated for certain state buildings. Any new state building with a roof area of at least 10,000 square feet must include on-site reclaimed technologies such as rainwater harvesting and air-conditioner condensate reuse systems. New state buildings with a roof area of at least 50,000 square feet in a region with an average rainfall of at least 20 inches must have rainwater harvesting systems.

On the local level, some municipalities and water providers offer rebates to encourage rainwater

harvesting. For example, Austin Water offers rebates ranging from \$0.50 to \$1 per gallon of storage to customers who install rainwater harvesting systems. SAWS has custom rebates based on the amount of water anticipated to be saved, often suggesting that customers include other sources of water such as air-conditioner condensate to increase the amount of water saved.

Additionally, some cities require permits or registrations before or after installing rainwater systems. Richardson requires a permit for rainwater harvesting systems that collect 400 or more gallons of rainwater to ensure proper installation, as those systems typically require some sort of electrical and plumbing component. Smaller systems must be registered with the city by the homeowner but do not require a permit. Most cities have certain criteria for the systems' components.

In-home conservation

Besides incentives and rebates for outdoor conservation, many cities have incentives and rebates for in-home conservation. According to the Texas Water Development Board, 40 water providers offered incentives for installing water-efficient clothes washers in 2012; 53 providers offered toilet replacement.

For example, Austin Water provides free showerheads that use 1.5 gallons per minute, free bathroom sink aerators that use 1.0 gallon per minute and kitchen aerators that use 2.2 gallons per minute. Dallas Water Utilities offers free high-efficiency toilets to replace older, water-consuming toilets as well as minor plumbing repairs for low-to-moderate income customers. From 1994 to 2012, SAWS distributed more than 240,000 high-efficiency toilets, high-efficiency showerheads and faucet aerators.

Graywater use


Perhaps one of the last remaining frontiers in water conservation for landscapes is the use of graywater. Graywater is defined as the wastewater from clothes washers, showers, bathtubs and sinks that are not used to dispose hazardous or toxic materials.

Until 2003, graywater use was restricted under Texas law. That year the Texas Legislature passed a law allowing private homes to use up to 400 gallons a day of untreated graywater for landscape irrigation, gardening or composting, with some restrictions. The restrictions included not using graywater from washing machines that frequently washed diapers, not spraying the graywater into the air and not allowing the graywater onto neighbors' yards.

That same law mandated that TCEQ adopt rules for graywater use, which the commission did in 2005. According to TCEQ, residential graywater can only be used for foundation watering, gardening, composting and landscaping. There are criteria, standards and required components for various sources and uses of the graywater. For example, if graywater is used where the potential for human exposure may occur, the graywater must meet certain bacterial limits. If graywater systems are constructed and operated in accordance with TCEQ's rules, they do not require an authorization or permit from TCEQ.

Graywater-use ordinances vary from city to city. El Paso follows the International Plumbing Code, which allows for the installation of graywater systems with a permit. Dallas' plumbing ordinance requires approval for graywater systems used for landscape irrigation.

Austin recently adopted new residential graywater rules, some of which are outlined in a Frequently Asked Questions handout. Graywater may not be used for toilet flushing in single-family properties; for water features such as ponds, fountains, waterfalls and creeks; or in vegetable gardens with root crops or other plants whose edible portions touch the ground. Homeowners must obtain a permit for laundry-to-landscape systems and other gravity-flow systems using up to 250 gallons per day. In addition, they must get their system inspected upon installation. Larger gravity-flow systems and pressurized systems must be installed by a licensed plumber or professional engineer and require a permit. These systems must be periodically inspected.

For information on installing such water-efficient systems in accordance with laws and ordinances, contact your water provider. 

For more information and resources, visit *txH₂O* online at [twri.tamu.edu/txH₂O](http://twri.tamu.edu/txH2O).