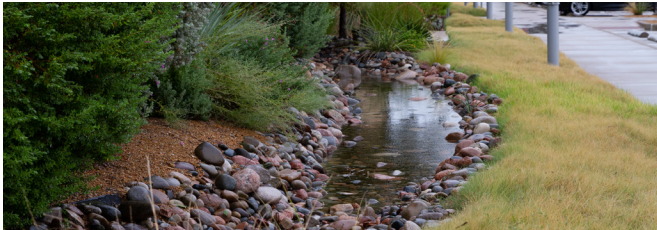


Benefits of Rainscaping

- Reduces flooding as well as water, pesticide, and fertilizer use
- Increases stormwater infiltration and protects water quality
- Provides food and habitat for wildlife

Water Conservation

Outdoor water use is one of our largest uses of water in north central Texas. Unfortunately, much of that water is wasted due to over-watering. To prevent waste, low volume multi-stream emitters produce even water across the turf. Subsurface drip irrigation gently waters the plants directly at their roots, right where they can use it. In addition, using less water outdoors means more water is available during drier seasons.



Water Quality Protection

All these features work together to protect the quality of our water resources. Landscapes that minimize the need for pesticides and fertilizers also reduce the risk of those pollutants entering our waterways. Controlling stormwater through infiltration keeps nutrients on the landscape and reduces erosion of soil to lakes and rivers.

Native and Adapted Plants

Native and adapted plants require less water, pesticide, and fertilizer to thrive, which translates to savings on water bills and less overall maintenance. These plants perform well despite dramatic shifts in weather and periodic drought. Many of these plants are not only beautiful to look at, but also provide food, habitat, and nesting areas for wildlife.



Stormwater Management

Rainscapes manage stormwater runoff by capturing and infiltrating rainwater into the cisterns, vegetation, and soil. The Rainscapes were developed to address stormwater issues on the TRWD campus using principles from Low Impact Development (LID), Green Stormwater Infrastructure (GSI), Blue-Green Infrastructure (BGI), and Nature-Based Solutions (NBS).

Dry meandering streambed (left): Runoff from parking lots and other impervious areas drain to the trenched river rock channels, where the rocks dissipate the energy from the flowing water. Softer materials, like mulch and turf, will further dissipate this energy. The water will slowly disperse underground and over grassed areas. Any leftover water is conveyed to the rain garden or redesigned stormwater wetland.

Rain garden: The rain garden near the lecture circle of the Overlook area collects stormwater from Annex West and the parking lot, allowing the water to slowly seep into the ground.

Pervious surfaces: The Rainscapes use pervious surfaces including pervious concrete, gravel pathways, and mulched garden beds to allow water to infiltrate into the ground. There is a small area of standard concrete at the lecture circle to demonstrate the difference between pervious and impervious surfaces.

Rainwater harvesting cisterns: Three 1,500 gallon cisterns collect rainwater from the roof of the Henderson Building. This water is fed into an irrigation system for the surrounding gardens. Rainwater harvesting prevents this water from becoming surface runoff and saves money through decreased reliance on municipal water sources.

Bioswale: The bioswales are low-lying planted areas that function to slow and capture water, allowing it to infiltrate into the soil. Plants within the bioswales are able to thrive in the fluctuating wet-dry environment.

Wetland (below): The wetland area is comprised of a series of micro-pools of varying depths connected by a meandering channel. The trickle channels and shallow areas may dry up completely during times of low rainfall, but the deeper pools consistently hold enough water to support fully aquatic vegetation and fish.

