

Water for Texans

Texas Forest Service



Urban Forests Protect Water Resources



Most people recognize that trees and green spaces (areas of grass, trees, and other vegetation set aside during development) provide many important and beneficial social, environmental, and economic functions in urban and developing areas. Trees provide shade and help lower temperatures during hot weather. They also improve the quality of urban life by beautifying the landscape and providing a sense of nature. In fact, studies have indicated that developments with green space reserves are more attractive and can improve the marketability and value of an area. But, did you know that trees and green spaces also play an important role in maintaining water quality?

Many of our cities and developing areas have streams, rivers, or lakes nearby. Protecting these waterways is a major challenge and becomes more critical as cities experience growth.

During rain events, water runoff from impervious streets, parking lots, and rooftops rushes into local water bodies, increasing erosion and the chances of flooding, and carrying pollutants with it that degrade water quality. Trees in urban areas, collectively called "urban forests," are able to absorb stormwater, reduce flooding and erosion, filter pollutants, cool air and water temperatures, and provide wildlife habitat.

Best Management Practices are measures we can all take to protect the ability of our urban forests to maintain water quality. Here are just a few:

- Plant trees and/or plan development projects to incorporate trees and other vegetation, limiting the amount of impervious cover.
- Protect trees during development projects, especially along waterways, and re-establish vegetation impacted by construction operations.
- Limit heavy equipment/vehicle usage or parking, and utility trenching within a tree's "drip zone" (the area directly below the crown of a tree). This prevents damage to the roots.
- Avoid placing construction material or waste around the base of trees. Don't dispose of construction residues, petroleum products, or other chemicals near trees or waterways.
- Minimize the amount of time between clearing and construction activities.

