Trees Tame Stormwater

Rain refreshes the land and nourishes the green landscape. But as houses, stores, schools, roads and parking lots spread and natural tree cover is lost, so is the absorbing power of vegetation and soil. The welcome rain becomes costly stormwater runoff. Without the benefit of trees and vegetated infrastructure, waterways are polluted as oils, heavy metal particles and other harmful substances are washed away. Fish and wildlife suffer. Drinking water becomes expensive or impossible to reclaim, property values are reduced, and our living environment is degraded.

Trees make a difference and every tree matters. It’s never too late for municipalities, homeowners, businesses, and schools to plant abundant trees to retain more water on site, enhance permeation into the soil, reduce the expenses of pipes and treatment plants, and protect environmental quality. For more information, including an informative version of these pages, please visit arborday.org/foreverwater.

Few Trees

1. Treeless Parking Lots are often the first to suffer from stormwater runoff and are a source of heat that is not only uncomfortable but increases air pollution.
2. Treeless Streets deprive the community of social benefits and ecological services. Following storms, water rushes along the street sides.
3. Asphalt Playgrounds are undeniably places for children to play, contributing to a disconnect with nature. The solid surface also prevents rain from directly recharging groundwater. Instead, adding extra volume to runoff.
4. Treeless Homes and Yards reduce property values, increase energy costs and allow rainfall to rush into gutters.
5. Erosion-prone rooftops act as a source of water, damaging property, destroying fish habitats and filling in reservoirs and waterways with soil.
6. Compacted Lawns without trees are not only less appealing, they often can’t soak up heavy rains fast enough. Excessive runoff flows across sidewalks and down driveways and streets.
7. Overwhelmed Sewage Systems can lead to untreated sewage being swept into waterways. Upgrades are expensive, adding to local tax burdens.

Abundant Trees

1. Well-Landscaped Parking Lots can be attractive to stormwater and beautify the community. They cool parking lots, reduce evaporated pollution that contributes to air-polluting ozone. Tree shade also adds energy to paved surfaces.
2. Tree-lined Streets retain large volumes of rainfall, reducing and cleaning runoff. They also increase property values, encourage shopping and business, reduce air pollution, calm traffic and lower noise levels.
3. Nature Explore Classrooms at schools can be combined with nearby community gardens and natural areas to serve as neighborhood parks. Their unpaved surfaces increase rainfall retention as they provide nature-rich play and learning spaces for children.
4. Shaded Homes and Tree-filled Yards make urban life more pleasant and provide practical benefits such as lower heating and air conditioning costs and increased resale values. The tree canopy is also a major contributor to stormwater runoff reduction.
5. Riparian Buffers consisting of trees and shrubs along waterways slow flood waters, reduce erosion, cool the water for fish, and filter harmful runoff from adjoining land.
6. Rain Gardens held water runoff, reducing harmful runoff and providing moisture for tree roots and flower beds. They also filter chemicals draining from walkways, driveways and streets.
7. Manageable Stormwater Runoff results from abundant trees, multi-use catch basins and rain gardens, reduced impervious surfaces, and increased ground vegetation. The benefits are lower costs and a more livable, sustainable environment.