Community Trees and Water Quality.

GO WITH THE FLOW

Trees reduce urban runoff and the amount of sediment, pollutants, and organic matter that reach streams.[2]

Urban forests are better than traditional flood control systems at **protecting water quality**, especially during small storm events.[3]

A single mature deciduous tree can **intercept 500-700 gallons of rainfall** per year,[4] and a mature evergreen tree can intercept more than 4,000 gallons per year.[5]

REFERENCES:

[1] U.S. Environmental Protection Agency. Healthy Watershed Overview. Retrieved from https://www.epa.gov/hwp/healthy-watersheds-overview.

[2] Environmental Services Division. (2007). Department of Environmental Resources and Prince George's County, Maryland. Bioretention Manual. Publication.

[3] Xiao, Q.F.; McPherson, E.G.; Simpson, J.R.; Ustin, S.L. (1998) Rainfall Interception by Sacramento's Urban Forest. Journal of Arboriculture 24(4): 235–244.

[4] Seitz, J.; Escobedo, F. (2014). Urban Forests in Florida: Trees Control Stormwater Runoff and Improve Water Quality. University of Florida-IFAS, EDIS FR239. 1-4.

[5] Cotrone, V. (2017). The Role of Trees and Forests in Healthy Watersheds. Forest Stewardship Bulletin #10: pp. 1-4.

Picture this scene: Tree-lined streets and shaded parks border a river that runs through town. The river is clean and thriving, supporting a variety of aquatic and land animals. As storms roll through, neighborhood streets and sidewalks issue just a trickle of runoff headed to storm sewers — and eventually into the river.

Of all the benefits trees provide, clean water may be the most important. Unfortunately, however, urban watersheds across the country are in peril. With heavy rains come combined sewer overflows, leading to sewage getting into our rivers and streams. A recent national survey of rivers and streams showed that 55% of flowing waters are in poor biological condition.[1] As our towns and cities continue to expand, this must be top of mind.

Communities can ensure better water quality by maintaining a dense urban tree canopy and planting trees to manage stormwater and filter out pollutants. Protecting urban watersheds, adding landscaping to parking lots, planting street trees, and ensuring healthy riparian buffers are some of the strategies to make this a reality in your community.

WHAT YOU CAN DO:

- Support local policies and incentives for developers to retain tree cover during construction projects. Encourage tree planting among homeowners through rebates and education.
- Include tree planting with other green infrastructure projects to slow stormwater and improve overall water quality.
- Consider street trees a 'roadside utility' and use iTree software to calculate the stormwater benefits to include in an annual report to citizens.

Thank you for your ongoing commitment to improving your community with trees.

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