



# #PlantsDoThat For Water!

Protect your water resources. Plant something!

## Plants Are Filters

Plants help filter and reduce concentrations of nutrients, heavy metals, pathogens and other pollutants from storm water runoff.<sup>1</sup>

## Right Plant, Right Place

Water-wise landscaping is designed using regionally-appropriate plants with growing requirements that match the site conditions and grouping them based on soil and water requirements.<sup>2</sup>

## Erosion Eradicators

Plant roots significantly increase soil stability and decrease soil erosion caused by water runoff.<sup>3</sup>



## Reduce Runoff

Trees can capture up to 50% of rainfall. Therefore, parking lots planted with trees reduce water runoff by up to 17% compared to those that are not planted.<sup>4</sup>

## Flood Fighters

Compared to hard roofs, green roofs can reduce urban flooding risks by reducing or delaying the amount of water run off.<sup>5</sup>

## Cool Effect

Planting vegetation beside water reduces the temperature of the water, helping to offset effects of climate change and maintain water quality.<sup>6</sup>

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<sup>1</sup>Plants Are Filters: Payne, E. G. I., Pham, T., Cook, P. L. M., Fletcher, T. D., Hatt, B. E., & Deletic, A. (2014). Biofilter design for effective nitrogen removal from stormwater - influence

of plant species, inflow hydrology and use of a saturated zone. *Water Science and Technology*, 69(6), 1312-1319.

<sup>2</sup>Right Plant, Right Place: Kjelgren, R., L. Wang, and D. Joyce. 2009. Water Deficit Stress Responses of Three Native Australian Ornamental Herbaceous Wildflower Species for Water-wise Landscapes, *Hortscience*, 44(5):1358-1365.

<sup>3</sup>Erosion Eradicators: Gysels, G., Poesen, J.,

Bochet, E., & Li, Y. (2005). Impact of plant roots on the resistance of soils to erosion by water: A review. *Progress in Physical Geography*, 29(2), 189-217.

<sup>4</sup>Reduce Runoff: Zabret, K. and M. Šraj. 2015. Can Urban Trees Reduce the Impact of Climate Change on Storm Runoff? *Urbaniziv*, 26, S165-S178.

<sup>5</sup>Flood Fighters: Berndtsson, C.J. (2010). Green roof performance towards management of

runoff water quantity and quality: A review. *Ecological Engineering*, 36(4), 351-360. ISSN 0925-8574.

<sup>6</sup>Cool Effect: Wawrzyniak, V., P. Allemand, S. Bailly, J. Lejot, and H. Piégay. (2017). Coupling LiDAR and thermal imagery to model the effects of riparian vegetation shade and groundwater inputs on summer river temperature. *Science of The Total Environment* 592, 616-626. ISSN 0048-9697.

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