



Influence of rainfall interception by urban trees on runoff reduction

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Trees and other vegetation intercept precipitation which evaporates into the atmosphere and never reaches the ground. This help to reduce water reaching the ground and forming surface runoff. Therefore, it helps to reduce impact of urbanization. In the city of Ljubljana, Slovenia, rainfall partitioning (throughfall and stemflow) for birch (*Betula pendula* Roth.) and pine (*Pinus nigra* Arnold) trees was measured. Two years of measurements were selected: year 2014 as wet year (in Ljubljana precipitation was 16% higher than the long-term average) and year 2015 as dry year (70% of long-term average precipitation). In the observed period 23% of gross rainfall was intercepted by birch trees and 45% of gross rainfall by pine trees. The measured values of the two selected years were used for estimation of potential surface runoff reduction due to covering 10% of parking lot area with considered trees. Runoff reduction was estimated to be as high as 7.3% per year with higher values during the wetter year.