

## Hydrology Effects of Trees by Species

Location: Springfield, Hampden, Massachusetts, United States of America

Project: Springfield Squares, Series: Parks, Year: 2018

Generated: 4/8/2019



Species Name	Number of Trees	Leaf Area (ac)	Potential Evapotranspiration (ft <sup>3</sup> /yr)	Evaporation (ft <sup>3</sup> /yr)	Transpiration (ft <sup>3</sup> /yr)	Water Intercepted (ft <sup>3</sup> /yr)	Avoided Runoff (ft <sup>3</sup> /yr)	Avoided Runoff Value (\$/yr)
Northern red oak	8	1.93	23,376.75	2,763.04	8,493.23	2,764.06	548.85	36.69
Callery pear	10	0.46	5,623.89	664.72	2,043.27	664.97	132.04	8.83
Red maple	6	0.40	4,802.96	567.69	1,745.01	567.90	112.77	7.54
Norway maple	3	0.29	3,509.11	414.76	1,274.93	414.92	82.39	5.51
Littleleaf linden	5	0.21	2,569.83	303.74	933.67	303.86	60.34	4.03
crabapple	5	0.18	2,224.70	262.95	808.28	263.05	52.23	3.49
Kwanzan cherry	2	0.10	1,151.59	136.11	418.39	136.16	27.04	1.81
Sweetgum	1	0.09	1,086.78	128.45	394.85	128.50	25.52	1.71
Honeylocust	4	0.08	935.11	110.53	339.74	110.57	21.95	1.47
<b>Total</b>	<b>44</b>	<b>3.74</b>	<b>45,280.72</b>	<b>5,352.01</b>	<b>16,451.36</b>	<b>5,353.99</b>	<b>1,063.12</b>	<b>71.07</b>

Avoided runoff value is calculated by the price \$0.067/ft<sup>3</sup>. The user-designated weather station reported 37.2 inches of total annual precipitation.