

Form 4.2-1 LID BMP Performance Criteria for Design Capture Volume (DA)

1 Project area DA (ft ²):	2 Imperviousness after applying preventative site design practices (Imp%):	3 Runoff Coefficient (Rc): _ $R_c = 0.858(\text{Imp}\%)^3 - 0.78(\text{Imp}\%)^2 + 0.774(\text{Imp}\%) + 0.04$
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4 Determine 1-hour rainfall depth for a 2-year return period $P_{2\text{yr-1hr}}$ (in): http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html

5 Compute P_6 , Mean 6-hr Precipitation (inches):
 $P_6 = \text{Item 4} * C_1$, where C_1 is a function of site climatic region specified in Form 3-1 Item 1 (Valley = 1.4807; Mountain = 1.909; Desert = 1.2371)

6 Drawdown Rate <i>Use 48 hours as the default condition. Selection and use of the 24 hour drawdown time condition is subject to approval by the local jurisdiction. The necessary BMP footprint is a function of drawdown time. While shorter drawdown times reduce the performance criteria for LID BMP design capture volume, the depth of water that can be stored is also reduced.</i>	24-hrs <input type="checkbox"/> 48-hrs <input type="checkbox"/>
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7 Compute design capture volume, DCV (ft³):
 $DCV = 1/12 * [\text{Item 1} * \text{Item 3} * \text{Item 5} * C_2]$, where C_2 is a function of drawdown rate (24-hr = 1.582; 48-hr = 1.963)
 Compute separate DCV for each outlet from the project site per schematic drawn in Form 3-1 Item 2