Calculation of Proprietary Water Quality Units Storage Capacity

Step A. Site Planning Recommendation
Define goals and primary function of the Proprietary Water Quality Unit based on Factsheet 18.5.19. Refer to this factsheet as needed throughout the remainder of this calculation sheet.

Step B. Determine the peak flow rate from manufacturers recommendations:

Step C. Calculate the Required Water Quality Volume (WQV \text{Required}) of water to be removed by proprietary water quality units. Submit manufacturers documentation and specifications with this form:

1. C= runoff coefficient for the area draining to the proprietary water quality unit:

2. I= rainfall intensity for 15 minute, 1-year return frequency storm, 0.5 inches/hour for Louisville MSD

3. A= drainage area to the proprietary water quality unit in acres

4. Qp= peak flow rate through proprietary water quality unit in cfs=C*I*A

5. Is the peak flow rate in Step C.4 greater than the peak flow rate in Step B? ft³/s

6. If step C.5 is yes, then proceed to step D.
   If no, redesign practices as necessary so that 100% of the water is contained.

Step D. Complete O&M documentation.

Additional Calculations and Explanation (Required if design deviates from calculation sheet):

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