Calculation of Proprietary Water Quality Units Storage Capacity

Project Name:_____

Date Submitted:_____

Property Address:_____

| MSD Reviewer:_____ |
| WM No._____ |

Development/Property Name:_____

GMP Number:_____

Design Firm:_____

Design Engineer:_____Telephone:_____Email:_____

KY PE No.:_____

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 manufactures recommendations: _____ ft^3/s

Step C. Calculate the Required Water Quality Volume (WQ_V 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, 2.82 inches/hour for Louisville MSD   _____ inches/hour

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   _____ ft^3/s

5. Is the peak flow rate in Step C.4 greater than the peak flow rate in Step B?   _____ ft^3

6. If step C.5 is yes, then proceed to step D.
   If no, redesign practices as nessary 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):

_____

_____

_____

_____