SAN FRANCISCO PUBLIC UTILITIES COMMISSION

URBAN WATERSHED MANAGEMENT PROGRAM

1145 Market Street, 5th Floor, San Francisco, CA 94103 • Tel. (415) 551-4694 • Fax (415) 934-5728

Re: SFPUC Stormwater Design Guidelines
Accepted Hydrologic Calculation Methods

Combined Sewer Areas (CSS Areas):

Quantity Control Calculations for LEED 6.1 shall demonstrate how the system is sized to meet peak discharge rate and quantity[1] requirements for the required design storm[2].

1. **Preferred:**
   - San Francisco Stormwater Design Guidelines, Appendix B: CSS BMP Sizing Calculator. (Only allowed for project sites < 2 acres)
   - Single-event hydrologic modeling software (e.g., Pondpack, HydroCAD, or equal[3]) or continuous simulation modeling software (e.g., EPA SWMM, or equal).

2. **Acceptable (for drainage areas with simple BMP systems or estimating integrated treatment train systems):**
   - The Rational Method to predict the peak flow rate, and the Simple Method to estimate volume. (Only allowed for project sites < 1/2 acres)
   - An industry-standard engineering method for generating runoff hydrographs (e.g., the SCS Unit Hydrograph Procedure or the Santa Barbara Urban Hydrograph Method). (Only allowed for project sites < 2 acres)

Separate Sewer Areas (MS4 Areas):

Water Quality Calculations for LEED 6.2 shall demonstrate how the system is sized to capture and/or treat 90% annual rainfall volume. San Francisco qualifies as a Semi-arid Watershed and therefore 0.75 inches of rainfall shall be used.

1. **Preferred:**
   - San Francisco Stormwater Design Guidelines Appendix B: MS4 BMP Sizing Calculators.
   - Continuous simulation modeling software (e.g. EPA SWMM, or equal).

2. **Acceptable (for drainage areas with a simple BMP systems or estimating integrated treatment train systems):**
   - The industry-standard Rational Method may be used for flow based sizing, and the Simple Method may be used to estimate treatment volumes. (Only allowed for project sites < 2 acres).

[1] The UWMP interprets the quantity requirements of this credit as permanent stormwater volume reduction, NOT temporary stormwater volume reduction, i.e. detention. For more information, contact UWMP staff.
[2] San Francisco 1-yr and 2-yr 24-hr design storm data is available online. http://sfwater.org/sdg
[3] The SFPUC does not endorse any particular proprietary software.