

Memorandum

To: Paige Ahlborg & Nicole Soderholm, RWMWD
From: Brandon Barnes
Subject: Stormwater Impact Fee Assessment
Date: October 26, 2018
Project: 23-62-0031.16-180-010
c: Tina Carstens RWMWD
Forrest Kelley, Elizabeth Hosch, CRWD
Erin Anderson Wenz, Barr

Rule C: Stormwater Management Section 3(c)(2) describes the Alternative Compliance Sequencing for sites where the volume reduction standard cannot be fully met onsite with infiltration BMP. Section 3(c)(2)(iii) allows, as a last alternative, for the applicant to pay a stormwater impact fee (SIF) into the District's Stormwater Impact Fund to cover the cost of implementing equivalent volume reduction elsewhere in the watershed. The Rule states that, "the required amount to contribute to the Stormwater Impact Fund shall be set by the Board annually." RWMWD last set the SIF at \$40,000 per acre of impervious area in 2008, and are interested in updating the SIF based on current construction costs.

Barr and RWMWD staff considered construction costs for several types of BMPs. Construction costs included in the evaluation were selected based on the following criteria.

- The BMP was constructed between 2015 and 2018. Barr and RWMWD staff selected a cutoff of 2015 because that is when the District adopted the current rules and the volume reduction requirement was revised from 0.9-inches of runoff to 1.1-inches of runoff from new and disturbed impervious surfaces.
- Only above ground infiltration and filtration BMPs were considered. Typically more expensive BMPs such as tree trenches, green roofs, and porous pavement were not considered.
- Costs data for both public and private projects were included in the evaluation.
- Costs were limited to construction costs. Costs associated with future maintenance of a regional BMP were not considered

Construction costs were converted to 2018 dollars using ENR Construction Cost Indices. Costs were then normalized based on the infiltration volume provided by each BMP. Figure 1 shows the construction cost per cubic foot of infiltration volume provided for the 68 BMPs evaluated.

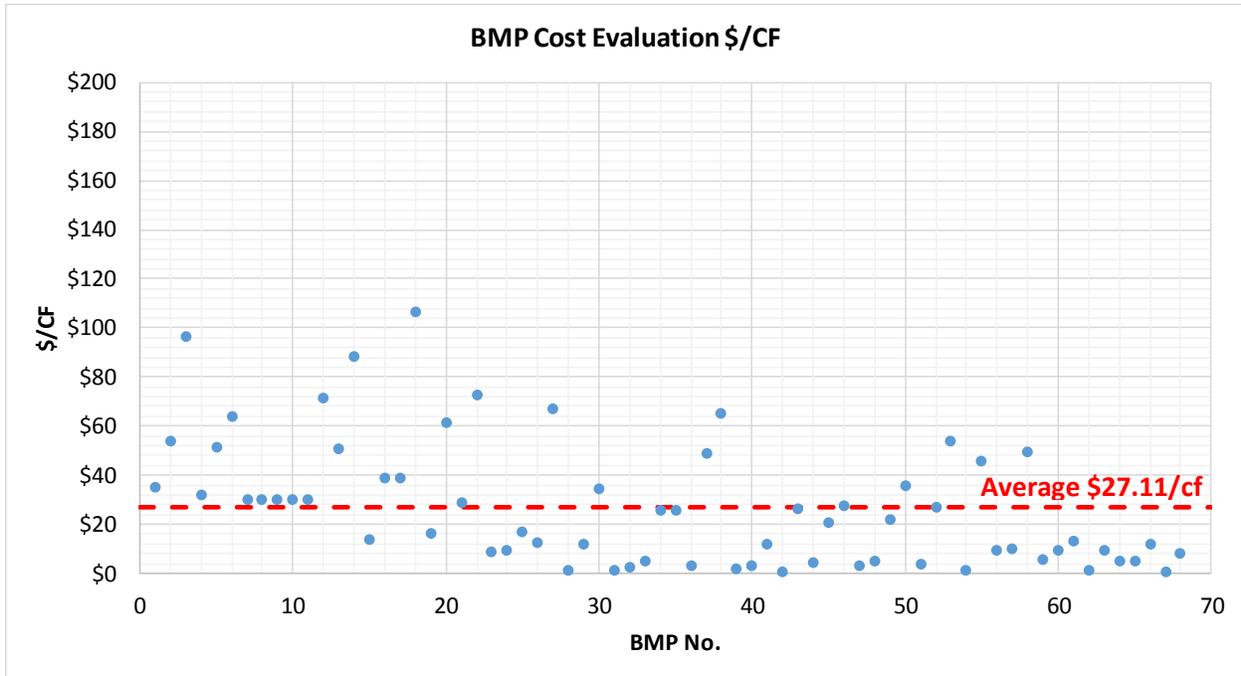


Figure 1. Construction Cost per Cubic Foot of Volume Reduction Provided

The District's current volume reduction requirement of 1.1-inches for new and disturbed impervious surfaces is equivalent to 3,993 CF of infiltration volume per impervious acre. Based on the average construction cost of \$27.11/CF of infiltration volume provided, the SIF would be \$108,250 per impervious acre (i.e., \$27.11/CF x 3,993 CF/acre of impervious area = \$108,250).

For comparison, RWMWD and CRWD staff presented Stormwater Impact Fees from other areas of the country at the September 19, 2018 TAC meeting. Stormwater Impact Fees presented included:

- Chesapeake Bay: \$150,000 per acre of impervious area
- San Francisco: \$600,000+ per acre of impervious area
- Pittsburgh: \$150,000 to \$200,000 per acre of impervious area
- New York: \$129,000 per acre of impervious area
- Roseville, MN: \$89,842.50 per acre of impervious area