



## Metropolitan North Georgia Water Planning District

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### **Post-Construction Stormwater Technology Assessment Protocol Review Summary**

BayFilter™

May 22, 2018

#### Introduction

BaySaver Technologies, LLC submitted field and lab data for review of their BayFilter stormwater treatment product. The Metro Water District's Post-Construction Stormwater Technology Assessment Protocol (PCSTAP) review committee reviewed all data and documentation submitted for adherence to the Metro Water District's protocol. This review is not an approval or detailed verification of the device, technology, or real-world performance itself. Rather, this review provides concurrence to local jurisdictions and other as to the completeness of data and document submitted with regards to making local determinations. Local jurisdictions are free to allow or not any device, technology, performance claim, load reduction, etc. as needed to accommodate local geography, policy, or review of the manufacturer's claims.

#### Performance Claim

The manufacturer provided the following performance claim:

*"The BayFilter cartridge filtration system is capable of exceeding 80% Total Suspended Solids (TSS) removal efficiency at stated flow rates as evidenced by field and laboratory testing from around the nation. The system also exceeds 60% total phosphorus (TP) removal."*

The review committee did not evaluate claims for phosphorus removal, only TSS as pursuant to our protocol and existing stormwater quality requirements. However, jurisdictions are encouraged to download the full engineering report for review if phosphorus or other pollutants are of local concern.

#### Summary of Review

The PCSTAP reviewed data submitted for 1) field test and 2) laboratory tests.

- 1) Field Tests - Field tests were conducted by BaySaver Technologies LLC in Huntersville, NC (a northern suburb of Charlotte, NC). Field tests were conducted over the course of a year and included appropriate rain fall analogous to the Atlanta Metro area. Field tests showed a minimum 80% reduction in TSS per manufacturer claims. The Charlotte-Mecklenburg protocol does not require a PSD analysis during field tests, therefore none was provided. However, the Charlotte area is characterized by Piedmont soils, so using this geography as an analogue for the Atlanta Metro was deemed reasonable for field data. Previous testing in Washington and New Jersey shows well over 80% TSS removal with d50's of 53µm and 75µm respectively (this was used only as reference and not as a replacement for our required PSD).

- 2) Lab Tests – Laboratory tests are allowed under the PCSTAP provided the commercially available Silica mixture Sil-Co-Sil 106 (made by U.S. Silica) is used. For reference, Sil-Co- Sil 106 has a d100 of about 212µm and a d50 of about 19µm. BaySaver conducted lab analysis using, under observation of Boggs Environmental Consulting as 3<sup>rd</sup> party verification of proper lab protocols, using Sil-Co-Sil 106 with a d50 of 23µm, which is within acceptable range.

### Conclusion

After reviewing all data and documentation submitted, the committee believes there is enough information per the PCSTAP for local jurisdictions to make determinations on allowing the BayFilter™ by BaySaver Technologies LLC., for use in post-construction stormwater controls per the manufacturer claims. As stated above, jurisdictions may use the information in this summary for their determinations or the full submission will be made available upon request if a jurisdiction chooses to conduct their own review.