



## Metropolitan North Georgia Water Planning District

International Tower | 229 Peachtree St., NE | Suite 100 | Atlanta, GA 30303

December 21, 2020

Laraine Sanfilippo  
Oldcastle Infrastructure  
10441 Vine Street  
Lakeside, CA 92040

Re: Metropolitan North Georgia Water Planning District *Post-Construction Stormwater Technology Assessment Protocol* Submission Review

Dear Ms. Sanfilippo:

This letter is in response to Oldcastle's request for review of the BioPod Biofiltration Device under the Metropolitan North Georgia Water Planning District's (District) Post-Construction Stormwater Technology Assessment Protocol (PCSTAP).

Per the objectives outlined on page one of the PCSTAP, the purpose of this review is to "characterize a technology's effectiveness in removing pollutants from stormwater runoff for an intended application and to compare test results with vendors' claims." The District's role is to review engineering reports and testing results submitted by vendors for their proprietary technology and assess conformity with the PCSTAP.

The Oldcastle submission and supplementary information requested was reviewed by the District in consultation with Tetra Tech and the Technology Review Committee. The following is a summary of the main findings from that review:

1. The submittal contained an excerpt from a July 2018 TAPE submittal including samples and data from 17 separate events. TAPE accepted 15 of the samples. Four of the 15 samples were collected as grab samples and do not meet the PCSTAP criteria of collecting "Flow-weighted composite samples covering a minimum of 70% of the total storm flow, including as much of the first 20% of the storm as possible." 11 of the 15 samples do meet the PCSTAP protocol and criteria.
2. The 11 samples that meet the criteria were found to be appropriate for the conditions typically found in Georgia. The d50 of 28  $\mu\text{m}$  in the influent samples is consistent with typical soils in the Georgia area. For reference, the PCSTAP review for Hydro

International Up-Flo Filter w/ CPZ Mix Filter Media on May 30, 2017 stated that a d50 of up to 30 µm is representative of Georgia Soils.

3. The data analysis and results from Oldcastle showed an 84% TSS reduction.
4. The submittal to NJCAT in May 2018 included four samples and data that were collected and analyzed as part of a laboratory study. All four samples were collected as grab samples and do not meet the PCSTAP protocol.
5. The proposed Flow Sizing methodology presented for calculating the Water Quality is inconsistent with the Georgia Stormwater Management Manual (GSMM) Water Quality Volume Peak Flow:
  - a. The BioPod method recommends using a 1-year return interval storm, which does not match the GSMM method.
  - b. The GSMM method for water quality relies on “the average 85th percentile annual rainfall event” which is given as 1.2 inches (GSMM, 2016, Volume 2, Section 3.1.7 pg 88).
6. The submittal indicates that the device can be sized to accommodate flow rates which are consistent with Georgia runoff flows based on the 1.6 gpm/sf treatment rate proposed in the submittal.

Based on this review, the District has determined that the information provided warrants a conditional concurrence under the PCSTAP. Eleven of the 15 analyzed storm events submitted to TAPE meet the PCSTAP protocol and criteria, but four of the 15 samples were collected as grab samples and do not meet the PCSTAP criteria. A conditional concurrence is valid for 12 months after date of issuance. This conditional concurrence will expire on December 21, 2021 and upon expiration will be removed from the District website (<http://www.northgeorgiawater.org>).

To receive a full PCSTAP concurrence, please submit four additional storm events and data analysis before December 21, 2021 that meet the PCSTAP criteria and are appropriate for the conditions in Georgia. While the inconsistency with the water quality sizing methodology does not impact concurrence for the eleven storms analyzed for the TAPE submittal, it is recommended that Oldcastle correct this inconsistency when submitting the four additional storm events. Concurrence will be reevaluated upon review of the additional storm events and associated data analysis.

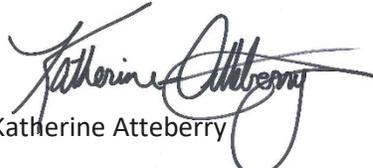
As stated in the PCSTAP, this review of vendor data and public dissemination of information does not constitute an approval process or an endorsement of any product by the District.

Local governments and other entities in the District are free to use this information as part of their processes to evaluate the suitability of these technologies or products for use within their

jurisdiction. Local governments and other entities within the District may elect to allow or refuse use of any product on the concurrence list. They may also allow removal efficiencies that differ from manufacturer claims based on local geography, policies, or other conditions.

Thank you for your interest in PCSTAP evaluation and please feel free to contact me at 470.378.1607 or [KAtteberry@atlantaregional.com](mailto:KAtteberry@atlantaregional.com) if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Katherine Atteberry". The signature is fluid and cursive, with a large loop at the end of the last name.

Katherine Atteberry

Stormwater Planning Manager