

City of Bristol Tennessee

Guidance for Manufactured Proprietary Water Quality Units

This document is provided to assist developers/designers in properly selecting and sizing manufactured proprietary water quality units. These units, also called “flow thru devices”, are utilized to remove pollutants from stormwater runoff. When required for sediment removal, the manufactured water quality unit will receive immediate approval if it meets the following criteria:

1. The chosen unit must have current interim or final certification by the New Jersey Corporation for Advanced Technology (NJCAT) or the United States Environmental Protection Agency, Environmental Technology Verification Program (ETV). Currently certified units may be found at:

<http://www.njstormwater.org/treatment.html>
<http://www.epa.gov/etv/>

Total Suspended Solids (TSS) removal rates published in the NJCAT or ETV certification shall be used in the calculation of sediment removal for the site.

2. If used in a treatment train, the units must be placed as the first unit in the treatment train.
3. All units must be able to overflow or bypass flood flows in excess of the water quality treatment flow. Typically, on-line units will use an overflow mechanism and off-line units will use a bypass mechanism for flood flows. See Section 4.2.6 of the Water Quality BMP Manual for further discussion of overflow and bypass. All manufactured treatment devices must also have similar provisions to safely overflow or bypass runoff in the event of internal component clogging, blockage, and/or failure.
4. The unit must be sized to treat the peak flow rate caused by the required water quality storm. The calculated flowrate must be used in conjunction with approved loading rates published in the NJCAT or ETV certification to choose the correct size of unit.

If the water quality unit does not meet the above criteria, a TSS removal rate of 10% may be allowed for the device per Section 4.4.5 of the Water Quality BMP Manual.

Proper and frequent maintenance is required by ordinance for proper functioning of proprietary BMPs. Please make sure to follow the manufacturer’s recommendations for maintenance of the units. Also, please consult the local Water Quality BMP Manual for information regarding maintenance of BMPs and maintenance record keeping/reporting requirements.

Should you have any questions or need additional information please contact the City’s storm water coordinator.