APPENDIX A
NJDEP Approval Letter

PHONE 815 941 4549
FAX 331 318 5347
WEB www.stormtrap.com
EMAIL info@stormtrap.com
1287 Windham Parkway
Romeoville, Illinois 60446

KIM GUADAGNO

CHRIS CHRISTIE
Governor

Lt. Governor

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Nonpoint Pollution Control
Division of Water Quality
401-02B
Post Office Box 420
Trenton, New Jersey 08625-0420
609-633-7021 Fax: 609-777-0432
http://www.state.nj.us/dep/dwq/bnpc_home.htm

BOB MARTIN
Commissioner

August 10, 2017

Dan Fajman, General Manager
FreshCreek Technologies, Inc.
1834 Pompton Avenue, Suite 2
Cedar Grove, NJ 07009

Re: MTD Lab Certification
StormTrap SiteSaver® - 4 Hydrodynamic Separator (STSS-4) by FreshCreek Technologies, Inc.
Offline or Online Installation

TSS Removal Rate 50%

Dear Mr. Fajman:

The Stormwater Management rules under N.J.A.C. 7:8-5.5(b) and 5.7 (c) allow the use of manufactured treatment devices (MTDs) for compliance with the design and performance standards at N.J.A.C. 7:8-5 if the pollutant removal rates have been verified by the New Jersey Corporation for Advanced Technology (NJCAT) and have been certified by the New Jersey Department of Environmental Protection (NJDEP). FreshCreek Technologies, Inc. has requested an MTD Laboratory Certification for the StormTrap SiteSaver® - 4 Hydrodynamic Separator.

The projects falls under the "Procedure for Obtaining Verification of a Stormwater Manufactured Treatment Device from New Jersey Corporation for Advance Technology" dated January 25, 2013. The applicable protocol is the "New Jersey Laboratory Testing Protocol to Assess Total Suspended Solids Removal by a Hydrodynamic Sedimentation Manufactured Treatment Device" dated January 25, 2013.

NJCAT verification documents submitted to the NJDEP indicate that the requirements of the aforementioned protocol have been met or exceeded. The NJCAT letter also included a recommended certification TSS removal rate and the required maintenance plan. The NJCAT Verification Report with the Verification Appendix (dated June 2017) for this device is published online at http://www.njcat.org/verification-process/technology-verification-database.html.

The NJDEP certifies the use of the StormTrap SiteSaver® - 4 (STSS-4) Hydrodynamic Separator by FreshCreek Technologies, Inc. at a TSS removal rate of 50% when designed, operated, and maintained in accordance with the information provided in the Verification Appendix and the following conditions:

1. The maximum treatment flow rate (MTFR) for the manufactured treatment device (MTD) is calculated using the New Jersey Water Quality Design Storm (1.25 inches in 2 hrs) in N.J.A.C. 7:8-5.5.

2. The STSS-4 stormwater treatment device shall be installed using the same configuration reviewed by NJCAT. Only model STSS-4 is certified under this letter, and the sizing information is specified in item 6 below.

3. This STSS-4 stormwater treatment device cannot be used in series with another MTD or a media filter (such as a sand filter) to achieve an enhanced removal rate for total suspended solids (TSS) removal under N.J.A.C. 7:8-5.5.

4. Additional design criteria for MTDs can be found in Chapter 9.6 of the New Jersey Stormwater Best Management Practices (NJ Stormwater BMP) Manual which can be found on-line at www.njstormwater.org.

5. The maintenance plan for a site using this device shall incorporate, at a minimum, the maintenance requirements for the STSS-4 stormwater treatment device. A copy of the maintenance plan is attached to this certification. However, it is recommended to review the maintenance website at http://stormtrap.com/wp-content/uploads/2016/05/SiteSaver-OM.pdf for any changes to the maintenance requirements.

6. Sizing Requirement:

   The example below demonstrates the sizing procedure for the STSS-4 Stormwater Treatment Device:

   Example: A 0.25 acre impervious site is to be treated to 50% TSS removal using a SiteSaver Stormwater Treatment Device. The impervious site runoff (Q) based on the New Jersey Water Quality Design Storm was determined to be 0.79 cfs.

   Maximum Treatment Flow Rate (MTFR) Evaluation:

   The site runoff (Q) was based on the following:
   time of concentration = 10 minutes
   i = 3.2 in/hr (page 5-8, Fig. 5-3 of the NJ Stormwater BMP Manual)
   c = 0.99 (curve number for impervious)
   $Q = ciA = 0.99 \times 3.2 \times 0.25 = 0.79$ cfs

   Given the site runoff is 0.79 cfs and based on Table 1 below, the STSS-4 with a MTFR of 4.32 cfs could be used for this site to remove 50% of the TSS from the impervious area without exceeding the MTFR.

   The sizing table corresponding to the STSS-4 model is noted below. This information can also be found in the Verification Appendix of the NJCAT Verification Report. The sizing requirement for the STSS-4 model hydrodynamic separator is as follows:

Table A-1 STSS-4 Sizing Information

Model	NJDEP 50% TSS Maximum Treatment Flow Rate (cfs)	Treatment Area (ft^2)	Hydraulic Loading Rate (gpm/ft^2)	50% Maximum Sediment Storage Volume (ft^3)
STSS-4	4.32	84	23.1	28

A detailed maintenance plan is mandatory for any project with a Stormwater BMP subject to the Stormwater Management Rules, N.J.A.C. 7:8. The plan must include all of the items identified in the Stormwater Management Rules, N.J.A.C. 7:8-5.8. Such items include, but are not limited to, the list of inspection and maintenance equipment and tools, specific corrective and preventative maintenance tasks, indication of problems in the system, and training of maintenance personnel. Additional information can be found in Chapter 8: Maintenance and Retrofit of Stormwater Management Measures.

If you have any questions regarding the above information, please contact Mr. Shashi Nayak of my office at (609) 633-7021.

Sincerely,

James J. Murphy, Chief
Bureau of Nonpoint Pollution Control

Attachment: Maintenance Plan

cc: Chron File
Richard Magee, NJCAT
Vince Mazzei, NJDEP - DLUR
Ravi Patraju, NJDEP - BES
Gabriel Mahon, NJDEP - BNPC
Shashi Nayak, NJDEP - BNPC