



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

401-02B

Bureau of Nonpoint Pollution Control

Division of Water Quality

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August 31, 2011

CHRIS CHRISTIE

Governor

KIM GUADAGNO

Lt. Governor

BOB MARTIN

Commissioner

Mark B. Miller, P.G.
2705 Kanasita Drive
Chattanooga, Tennessee 37343

Re: MTD Laboratory Test Certification for the Aqua-Swirl by AquaShield, Inc.

Effective Date: September 1, 2011

Expiration Date: September 1, 2013

TSS Removal Rate: 50%

Dear Mr. Miller:

The Stormwater Management Rules at N.J.A.C. 7:8 allow the use of manufactured treatment devices (MTDs) for compliance with the design and performance standards provided that the pollutant removal rates have been verified by New Jersey Corporation for Advanced Technology, NJCAT, and certified by the New Jersey Department of Environmental Protection (NJDEP).

The certification process was revised through the "Transition for Manufactured Treatment Devices," dated July 15, 2011. NJDEP has determined that Aqua-Swirl by AquaShield, Inc. is consistent with the criteria under *A. Manufactured Treatment Devices with Interim Certifications*. Therefore, **NJDEP certifies the use of the Aqua-Swirl by AquaShield, Inc. with a 50% TSS removal rate, provided that the project design is consistent with the following conditions:**

1. The model selected for the project design must be sized in accordance with Table 1 and based on the peak flow of the New Jersey Water Quality Design Storm as specified in N.J.A.C. 7:8-5.
2. The Aqua-Swirl can only be used off-line. Any flow above the New Jersey Water Quality Design Storm must utilize an external bypass around the system.

3. A hydrodynamic separator, such as the Aqua-Swirl, cannot be used in series with another hydrodynamic separator to achieve an enhanced removal rate for total suspended solids (TSS) removal under N.J.A.C. 7:8-5.5.
4. The maintenance plan for the sites using this device shall incorporate at a minimum, the maintenance requirements for the Aqua-Swirl, attached.

Table 1

Aqua-Swirl® Model	Swirl Chamber Diameter (ft)	Maximum Stub-out Offline Pipe Outer Diameter (in)	Water Quality Treatment Flow (cfs) ¹	Oil/Debris Storage Capacity (gal)	Sediment Storage Capacity (ft ³)
AS-2	2.50	8	0.6	37	10
AS-3	3.25	10	0.9	110	20
AS-4	4.25	12	1.6	190	32
AS-5	5.00	12	2.2	270	45
AS-6	6.00	14	3.2	390	65
AS-7	7.00	16	4.3	540	90
AS-8	8.00	18	5.6	710	115
AS-9	9.00	20	7.1	910	145
AS-10	10.0	22	8.8	1,130	180
AS-12	12.0	24	12.6	1,698	270
AS-XX*	Custom/Multiple		>13		

* Higher water quality treatment flow can be designed with multiple swirl chambers.

In addition to the attached, any project with a Stormwater BMP subject to the Stormwater Management Rules, N.J.A.C. 7:8, must include a detailed maintenance plan. The detailed maintenance plan must include all of the items identified in 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 of the New Jersey Stormwater Best Management Manual.

NJDEP anticipates proposing further adjustments to this process through the readoption of the Stormwater Management Rules. Additional information regarding the implementation of the Stormwater Management Rules N.J.A.C. 7:8 are available at www.njstormwater.org. If you have any questions regarding the above information, please contact Ms. Sandra Blick of my office at (609) 633-7021.

Sincerely,



Ed Frankel, P.P., Acting Bureau Chief
Bureau of Nonpoint Pollution Control

C: Richard S. Magee, NJCAT
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