State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
401-02B
Bureau of Nonpoint Pollution Control
Division of Water Quality
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CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

August 31, 2011

Ron Anderson
825 Steneri Way
Sparks, NV 89431

Re: MTD Field Test Certification for the StormVault by Jensen Precast

Effective Date: September 1, 2011
Expiration Date: December 1, 2016
TSS Removal Rate: 80%

Dear Mr. Anderson:

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 StormVault by Jensen Precast is consistent with the criteria under *B. Manufactured Treatment Devices with Field Certifications.* Therefore, **NJDEP certifies the use of the StormVault by Jensen Precast with an 80% TSS removal rate, provided that the project design is consistent with the following conditions:**

1. The various models and associated water quality flow capacities shall be sized for the peak flow of the New Jersey Water Quality Design Storm per N.J.A.C. 7:8-5.

2. The StormVault system provides a minimum 3-foot permanent pool equivalent to or greater than the total inflow volume of the NJ Water Quality Design Storm and must have a minimum length to width ratio of 3:1.

3. Beginning at the time of the peak storage in the basin for the Water Quality Design Storm, no more than 90% of the total peak storage volume is released over a 24 hour period. The minimum outlet diameter is one inch. If this minimum outlet does not allow for a 24 hour detention time, the 24 hour release period can be reduced to a minimum of

six hours. The use of an orifice less than one inch and / or a drawdown time of less than six hours is not in compliance with the conditions of this certification.

4. The StormVault is certified as an off-line system. Any flow above the New Jersey Water Quality Design Storm must be bypassed around the system. The product variation that includes the addition of an inlet chamber to provide bypass for the storm events larger than the New Jersey Water Quality Design Storm would satisfy the requirement of ensuring the off-line installation of this system.

5. This certification does not extend to the enhanced removal rates under N.J.A.C. 7:8 – 5.5 through the addition of settling chambers (such as hydrodynamic separators) or media filtration practices (such as a sand filter).

6. The maintenance plan for the sites using this device shall incorporate at a minimum, the maintenance requirements for the StormVault shown attached.

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

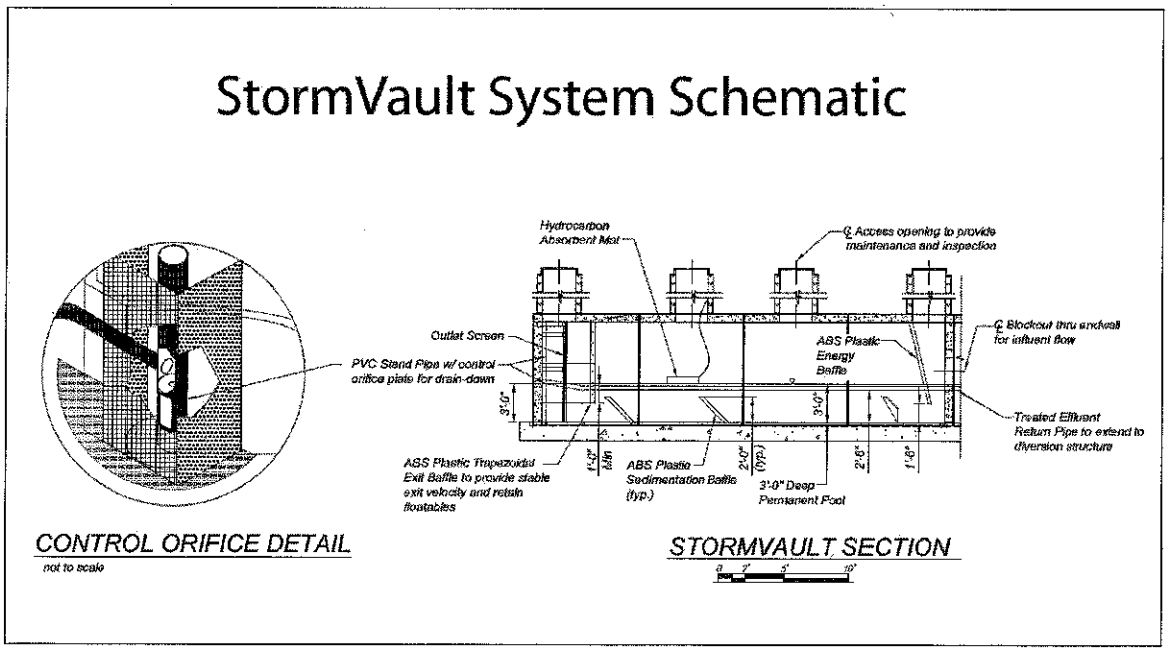
C: Richard S. Magee, NJCAT
Chron file

Appendix A: Maintenance Requirements for StormVault System by Jensen Precast

Effective performance of stormwater management best management practices requires regular and proper maintenance. Chapter 8 of the New Jersey Stormwater Best Management Practices Manual and N.J.A.C. 7:8-5.8 of the Stormwater Management rules provides additional information and requirements for preparing a maintenance plan for stormwater management facilities. Specific maintenance requirements for the StormVault System manufactured treatment device by Jensen Precast are presented below. These requirements must be included in the stormwater management system's maintenance plan in order to achieve the TSS removal rate associated with this manufactured treatment device.

A. General Maintenance

Any and all stormwater management system components expected to receive and/or trap debris and sediment must be inspected for clogging and excessive debris, sediment, and oil accumulation at least four times annually as well as after every storm exceeding 1 inch of rainfall. Such components may include bottoms, trash racks, low flow channels, outlet structures, riprap or gabion aprons, and cleanouts. Disposal of debris, trash, sediment, and other waste material should be done at suitable disposal/recycling sites and in compliance with all applicable local, state, and federal waste regulations. An analysis of the materials may be required prior to disposal.



All maintenance plans incorporating the StormVault system must indicate that sediment be removed at or before the average depth of sediment reaches six (6) inches.

B. Equipment and Training Requirements

Inspections are performed from the ground surface through access ports are located in the top of the manhole to facilitate inspection and maintenance. Equipment for the inspection (such as a flashlight, gloves, manhole hook, safety cones and probes to measure the depths of oil and sediment) and for the removal of sediment must be specified by the design engineer in the maintenance plan.

Maintenance of the StormVault chambers are performed by lowering a hose and nozzle into each chamber and pumping the collected material into a vacuum truck. During vacuuming, the permanent pool of water must remain when the sediment is removed. This will minimize the amount of material to be disposed of. Captured sediment resuspends easily; therefore, great care must be taken to prevent turbulence that may cause mixing and resuspension of settled materials. It is recommended that a professional pumping contractor, trained and licensed to remove and dispose of captured sediment material, perform this task.

The StormVault System is a confined space. Enter only when necessary and with the proper equipment, following OSHA confined space entry regulations.

C. Structural Components

All structural components must be inspected for cracking, subsidence, spalling, erosion, and deterioration at least annually.

D. Replacement Parts

Certain components of this device are only available through the manufacturer in order to achieve the TSS removal certified by the Department. If damage is noted on any components, replacement parts must be obtained from Jensen Precast

E. Additional Requirements

Where hydrocarbon mats are part of the approved plan, the following maintenance information must also be incorporated under the appropriate section:

A: General Maintenance

Hydrocarbon mats, which float on the surface of the permanent pool, are designed to remove free oils and greases. The mats are attached to the manhole accesses using a lanyard. These mats will be a granular solid white when initially installed and will turn darker as they absorb free oils and greases. Hydrocarbon mats must be replaced once the mat becomes a solid dark color uniformly throughout the granular medium.

B: Equipment and Training Requirements

To remove the mats, pull out the lanyard attached to the inside of the access cover. Care should be taken in lifting the mats out through the manholes, as the saturated mats can weigh up to five times as much as new mats. The used mats should be disposed of as directed by the local authority. Generally this is in a similar manner used to dispose of drain oil or similar materials. Replace the mats in like fashion by clipping the new mats to the keeper lines.

D. Replacement Parts

Hydrocarbon mats can be obtained by contacting Jensen Precast.