

STORMWATER BMP UPDATE



UPDATED / NEW BMPS

- Chapter 9.1 Bioretention Systems (Revised 02/09)
- Chapter 9.2 Standard Constructed Wetlands ***UPDATED***
- Chapter 9.3 Standard for Dry Wells
- Chapter 9.4 Extended Detention Basins ***UPDATED***
- Chapter 9.5 Standard for Infiltration Basins
- Chapter 9.6 Standard for Manufactured Treatment Devices
- Chapter 9.7 Standard for Pervious Paving Systems
- Chapter 9.8 Standard for Rooftop Vegetated Cover (reserved)
- Chapter 9.9 Sand Filters ***UPDATED***
- Chapter 9.10 Vegetative Filter Strips ***UPDATED***
- Chapter 9.11 Wet Ponds ***UPDATED***
- Chapter 9.12 Grass Swales ***NEW***
- Chapter 9.13 Subsurface Gravel Wetlands ***NEW***

http://www.njstormwater.org/bmp_manual2.htm

BMPS TO BE UPDATED/DEVELOPED

Bioretention Systems

Dry Wells

Infiltration Basins

Pervious Paving

Blue Roofs

Green Roofs

Cisterns

Updated BMP SUMMARY PAGE





Section and Title

9.2 STANDARD CONSTRUCTED WETLANDS



Standard constructed wetlands are stormwater management systems designed to maximize the removal of pollutants from stormwater runoff. Flow is directed through an engineered, open marsh system where pollutants are removed through settling and vegetative uptake/filtration. The total suspended solids (TSS) removal rate is 90%.

N.J.A.C. 7:8 Stormwater Management Rules - Design and Performance Standards

	Nonstructural Strategy	Assist with #7
	Water Quantity	When designed to receive runoff from all storm events (on-line)
	Groundwater Recharge	No
	Water Quality	90% TSS

Water Quality Mechanisms and Corresponding Criteria

Settling	
Minimum Length to Width Ratio	1:1
Sinuuous Flow Pathway	Recommended
Presence of a Permanent Pool	Required
Vegetative Uptake and Filtration	
Minimum Density of Vegetation	85%
Appropriate Species Selection	See Chapter 7: Landscaping
Minimum Inflow Drainage Area	Pond Category: 25 acres Marsh Category: 25 acres Extended Detention: 10 acres

Introduction

- Illustration
- Function
- Brief Definition
- % TSS Removal

Rule Compliance

- Nonstructural Strategies
- Numerical Requirements

Functionality

- Summary of Mechanism Specific Design Criteria
- Additional Reference to Key Information as Needed

MANUFACTURED TREATMENT DEVICES

[Municipal Stormwater Regulation](#)
[General Stormwater Permits](#)
[Individual Stormwater Permits](#)
[Permit Applications and Checklists](#)

NOTICE (January 25, 2013)

MTDs that are set to expire on September 1, 2013 have been issued a new expiration date of January 25, 2015.

[Click here](#) to link to NJCAT Verification Database

Program Links

- NJ Stormwater.org Contacts
- Bureau of Nonpoint Pollution Control
- Division of Water Quality
- Clean Water NJ

Stormwater Management- Manufactured Treatment Devices Certified by NJDEP	MTD Laboratory Test Certifications	Field Test Certifications	Superseded Certifications	Certified TSS Removal Rate	Maintenance Plan
AquaFilter Filtration Chamber by AquaShield, Inc.		Certification	Superseded	80%	Plan
Aqua-Swirl Concentrator By Aqua-Shield, Inc.		Certification	Superseded	50%	Plan
Bayfilter by BaySaver Technologies, Inc.			Superseded	80%	Plan
BaySeparator by BaySaver Technologies, Inc.			Superseded	50%	Appendix A
Continuous Deflective Separator (CDS) Unit by CONTECH Stormwater Solutions, Inc.	Certification	Certification	Superseded	50%	Plan
Downstream Defender by Hydro International, Inc.	Certification		Superseded	50%	Plan
Filtrerra Bioretention System by Filtrerra Bioretention Systems	Certification			80%	Plan

<http://njstormwater.org/treatment.html>

VERIFICATION APPENDIX


Introduction

- Manufacturer – Filtrerra® Bioretention Systems, A Division of Americast Inc., 11352 Virginia Precast Road, Ashland, VA 23005
- MTD - Filtrerra®
- TSS Removal Rate – 80%
- Specialized bioretention filtration media (Filtrerra proprietary blend)
- On-line installation with Terraflume up to 250 gpm (New Jersey 10-year storm event)

Detailed Specification

- NJDEP sizing tables attached (Table A-1 and Table A-2)
- Maximum inflow drainage area
 - NJDEP sizing tables attached (Table A-1 and Table A-2) are for **approximate** initial sizing only and that final sizing must be determined by the design engineer based on the maximum tested hydraulic loading rate, or MTR of 140 in/hr.
 - Maximum inflow drainage area
 - <0.09 acres (based on New Jersey Water Quality Design Storm NJAC 7:8-5.5(a)) and certain assumed site conditions (e.g. CN=0.95) for 4'x4' unit (see Table A-1 and Table A-2 for larger units)

<http://www.njcat.org/verification-process/technology-verification-database.html>



State of New Jersey
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 Bureau of Nonpoint Pollution Control
 Division of Water Quality
 Mail Code 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/bnpe_home.htm

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner


May 27, 2014

Chris French
Filtrerra® Bioretention Systems,
A Division of Americast, Inc.
11352 Virginia Precast Road
Ashland, Virginia 23005

Re: MTD Lab Certification for the
Filtrerra Bioretention System
by Americast, Inc.

TSS Removal Rate: 80%

Dear Mr. French:


Promoting Emerging Energy and Environmental Technology

- About Us
- Verification Process
- Education
- Events Calendar
- Success Stories

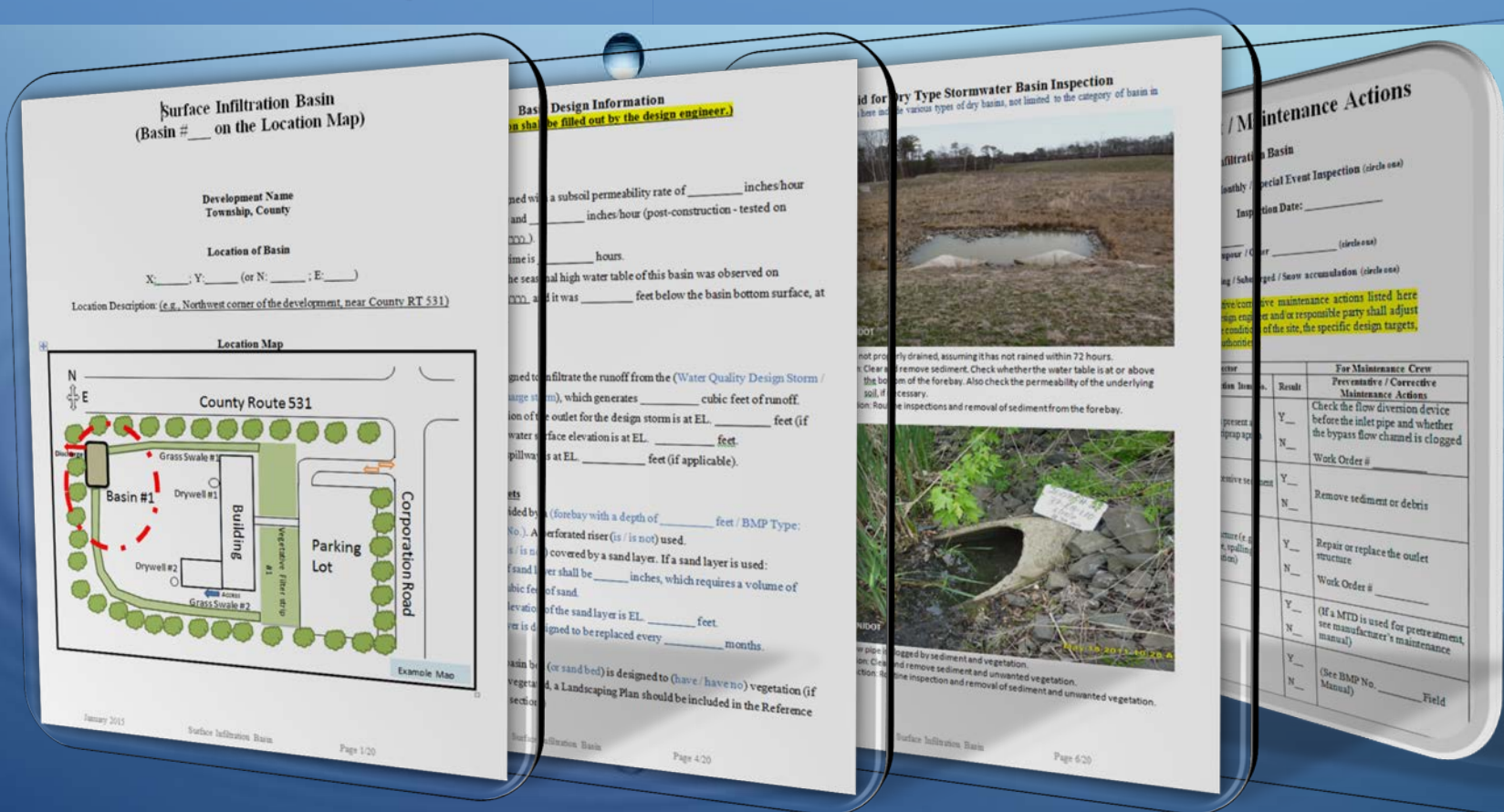
Stormwater Technologies: Laboratory Verified

Company	Product	Verification Date	Link to Report
Americast Inc.	Filtrerra Bioretention System	May 2014	Download
AquaShield Inc.	Aqua-Filter	Sept. 2005, Updated December 2005, Addendum 2007	Download
AquaShield Inc.	Aqua-Swirl	Sept. 2005, Updated December 2005	Download
BaySaver Technologies	BayFilter	June 2008	Download
BaySaver Technologies	BaySeparator	December 2004	Download
CONTECH Stormwater Solutions	Continuous Deflective Separator (CDS)	September 2014	Download
CONTECH Stormwater Solutions	VortSentry	December 2005	Download
Environment 21 LLC	StormPro Stormwater Treatment Device	October 2014	Download
Environment 21 LLC	V2B1	March 2009	Download
Hydro International Inc.	Up-Flo Filter	November 2008	Download
Hydro International Inc.	Downstream Defender	January 2015	Download
Hydroworks LLC	Hydroguard	July 2009	Download
Imbrinium Systems	Stormceptor DSR	August 2007	Download
Imbrinium Systems	Stormceptor STC	September 2004, Addendum June 2010	Download
Kristar Enterprises Inc.	FloGard Dual-Vortex	July 2009	Download
Suntree Technologies Inc.	NSBB - Evaluation with 100 micron Particles	June 2013	Download
Suntree Technologies Inc.	Nutrient Separating Baffle Box	November 2008, Addendum October 2013	Download
Terre Hill Stormwater Systems	Terre Kleen Separator	August 2007	Download

Stormwater Technologies: Field Verified

Company	Product	Verification Date	Link to Report
AquaShield Inc.	Aqua-Filter	November 2013	Download
AquaShield Inc.	Aqua-Swirl	November 2012	Download
CONTECH Stormwater Solutions	Continuous Deflective Separator (CDS)	January 2010, Amended August 2012	Download

FIELD MANUAL



STORMWATER TRAINING

Governor Chris Christie • Lt. Governor Kim Guadagno
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STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NJ STORMWATER.ORG
Stormwater in New Jersey



[NJStormwater.org Home](#) | [DEP Home](#) | [DEP Online](#)

Stormwater Management

- Green Infrastructure in NJ
- Stormwater Management Rule
- Stormwater Management Rule FAQs
- NJ Stormwater BMP Manual
- Tech Manual Chapters for Comment
- MTD Certifications and Guidance
- Additional Guidance Documents

Stormwater Permitting

- Municipal Stormwater Regulation
- General Stormwater Permits
- Individual Stormwater Permits
- Permit Applications and Checklists

Program Links

- NJ Stormwater.org Contacts
- Stormwater Training
- Bureau of Nonpoint Pollution Control
- Division of Water Quality
- Clean Water NJ

Stormwater Training

This page contains presentations, videos, and links to reference material that will aid in the implementation of a Stormwater Management Program.

Maintenance of Stormwater Management Measures

- [Narrated Video Part 1](#)
- [Narrated Video Part 2](#)
- [Powerpoint Parts 1 & 2 \(with notes\)](#)

[NJDEP Stormwater Employee led training through Rutgers](#)

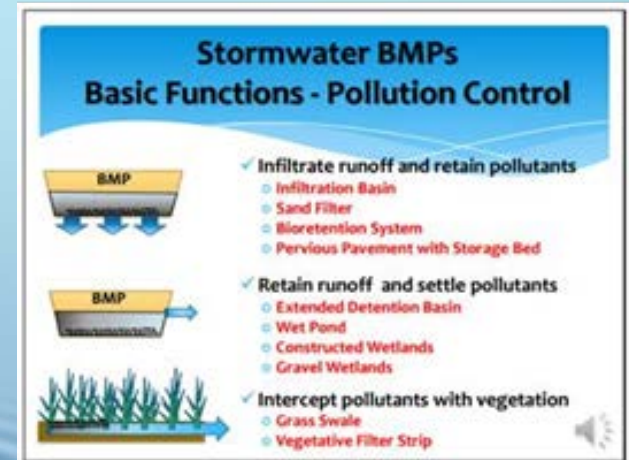
[Municipal Employee Training Video](#)

US EPA

- [Stormwater Training Courses and Workshops Website](#)
- [Green Infrastructure Webcast and Training](#)

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www.njstormwater.org/training.htm