

NJDEP STORMWATER OVERHAUL UPDATE

PRESENTED TO
MUNICIPAL OFFICIALS & STORMWATER
COORDINATORS

October 15, 2014

PRESENTED BY:
BUREAU OF NONPOINT POLLUTION CONTROL
NJDEP, DIVISION OF WATER QUALITY

Agenda

- ▣ Stormwater Overhaul Activities
- ▣ Tier A Permit Overview
- ▣ MS4 Annual Report Data Summary
- ▣ Revisions – Tier A Annual Report
- ▣ Tier A Permit Stormwater Audits
- ▣ Update on the MS4 Tier A Permit Renewal
- ▣ Mapping Demonstration
- ▣ Funding Stormwater Projects
- ▣ Questions and Wrap up

Stormwater Overhaul Activities

- ▣ Revised Annual Report*
- ▣ Tier A Audit Program*
- ▣ Renewed MS4 Tier A Permit*
 - Renewals of Tier B, HW Agency, Public Complex
- ▣ Updated BMP Chapter
- ▣ Nonstructural Management Strategies – NJAC 7:8-5.3
- ▣ Education and Outreach
- ▣ Green Infrastructure
- ▣ Basin Assessment

Best Management Practices (BMP) Guidance Update

- ▣ Updated BMP Guidance Manual-Chapter 9
 - Finalize 7 draft BMPs
 - Ensure consistent format
 - “Fact Sheets” for each BMP
 - Make it more “User Friendly”
- ▣ Focus Group Feedback
- ▣ NJDEP web page updated:
www.njstormwater.org/bmp_manual2.htm

BMPs Updated

- ▣ Grass Swale
- ▣ Constructed Stormwater Wetlands
- ▣ Gravel Wetlands
- ▣ Vegetative Filters
- ▣ Sand Filters
- ▣ Wet Ponds
- ▣ Extended Detention Basins

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 <i>Chapter 7: Landscaping</i>
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

BMPs Finalized

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

- 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*****

Nonstructural Point System Spreadsheet (NSPS) Update

- ▣ Used to evaluate “Maximum Extent Practicable” under rule at NJAC 7:8-5.3
- ▣ Nonstructure Stormwater Management Strategies
- ▣ “Protect” – “Minimize” – “Maximize”
- ▣ Court Ruling: NSPS and Guidance need to undergo Rulemaking Process
- ▣ NJDEP Work Group Meetings (April-Sept 2014)
- ▣ Stakeholder Meetings - October 2014
- ▣ Draft Regulation Proposal Sept 2015

Education and Outreach

- ▣ Outreach
- ▣ Rutgers-Development of Training Modules
 - Municipal Engineers, Planning & Zoning Boards
 - Elected Officials
 - Stormwater Coordinators
- ▣ Sustainable New Jersey
 - Model Stormwater Ordinance Committee
 - Education and Outreach Committee
 - Public/Private Partnership Committee

Green Infrastructure

- ▣ Non-structural Regulations – Pending modification
- ▣ CSO Permits – Evaluate Use of GI
- ▣ Meeting with CSO towns/POTWs and local environmental groups
- ▣ Share info and Leverage opportunities
- ▣ Incentives-NJ Env. Infrastructure Financing Program
 - Principal Forgiveness (\$6M) for GI projects in CSO areas and Barnegat Bay

NJDEP GREEN WEBPAGE: WWW.NJ.GOV/DEP/GI/



GREEN INFRASTRUCTURE in New Jersey



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Green Stormwater Practices

- [Rain Gardens/ Bioretention Basins](#)
- [Cisterns](#)
- [Grass Swales](#)
- [Green Roofs](#)
- [Pervious Pavement](#)
- [Street Tree Trench](#)
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Green Infrastructure can benefit businesses as well as the environment. Runoff occurs when there is more precipitation than the soil and vegetation can absorb. Water on parking areas can freeze and cause hazards to customers in parking lots. Permeable pavement can be used in parking lots instead of regular pavement because it is porous and will inhibit ponding and freezing. Cisterns or Rain barrels can also be used to collect rain water from the gutter for irrigation. Rain gardens can also collect and store water

from rooftop runoff, providing improved aesthetics as well as enhanced environmental benefits. Green roofs intercept some rainfall to prevent it becoming runoff, reducing the flow to the existing storm sewer system.

Useful Links

- [Raritan Basin Rain Barrel Rebate Program](#)
- [NJ Tree Foundation](#)
- [NJ Water Savers](#)
- [EPA Green Infrastructure](#)
- [EPA Green Funding Opportunities](#)
- [ASLA](#)

Infiltration Basin Assessment

- ▣ NJDEP, NJ Dept. of Ag., and Builders Association
- ▣ Assessing BMPs that have an infiltration component
- ▣ First step: Identify Infiltration Basin Universe
 - BMPs approved after September 2009 and currently built.
 - Requested Soil Conservation District Data Sheets
- ▣ Inspect ~50 Basins using Basins Assessment Forms
- ▣ Questions to be Addressed:
 - Are the Basins Functioning as Designed
 - Designed per the BMP Manual
 - Built in accordance with the design

Stormwater Overhaul Update

Questions?

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