

New Jersey's 2023 Municipal Separate Storm Sewer System (MS4) Permit

April 21, 2026

Woodbridge Township Municipal Training



RUTGERS UNIVERSITY

Water Resources Program

New Jersey Agricultural Experiment Station



Rutgers Cooperative Extension Water Resources Program
Christopher C. Obropta, Ph.D., P.E.

Summary of MS4 Requirements (January 1, 2023)

Section A: Stormwater Management Program

- Overview of MS4 Permit and SPPP

Section B: Minimum Standards for Public Involvement

- Public participation and published information of stormwater website

Section C: Minimum Standards for Local Public Education

- Complete 12 points of educational stormwater activities annually

Section D: Minimum Standards for Construction Site Stormwater Runoff

- Construction runoff covered by separate permit

Summary of MS4 Requirements

Section E: Minimum Standards for Post Construction Stormwater Management in New Development and Redevelopment

- Sets forth review requirements of development plans for stormwater management

Section F: Minimum Standards for Pollution Prevention/ Good Housekeeping for Municipal Operators

- Ordinances, community measures, inspection of stormwater facilities, maintain logs, municipal maintenance yards, trainings

Section G: Minimum Standards for MS4 Mapping, and Scouring, and Illicit Discharge Detection and Elimination

- Mapping requirements, stream scour inspection, illicit discharge detection and elimination from outfalls

Summary of MS4 Requirements

Section H: Watershed Improvement Plan

- Three phase document: Watershed Inventory Report (3rd year), Watershed Assessment Report (4th year), Watershed Improvement Plan Report (EDPA + 59 months)

Section I: Additional Measures and Optional Measures

- Allows additional measures/limits if desired

Section J: Recordkeeping

- Retain records of the permit for 5 years available on request

Section K: Annual Report and Certification

- Submit annual report to summarize compliance by May 1st annually

Section A: Stormwater Management Program

Overview of MS4 Permit and SPPP

The permittee shall develop, update, implement and enforce an MS4 stormwater program. A primary objective of the MS4 stormwater program shall be to implement best management practices and other measures that are designed to reduce the discharge of pollutants from the permittee's MS4, municipal maintenance yards and other ancillary operations, to the maximum extent practicable, to protect water quality, and to satisfy the applicable water quality requirements of the Clean Water Act.

Permittee shall ...

- develop, update, implement and maintain a Stormwater Pollution Prevention Plan (SPPP)
- designate a Stormwater Program Coordinator (SPC)
- ensure the MS4 Program and the SPPP is consistent with the Municipal Stormwater Management Plan (MSWMP)
- ensure the MSWMP is a component of the municipal master plan
- shall modify and update applicable ordinances and plan to reflect the MS4 Program including the Stormwater Control Ordinance



WOODBIDGE TOWNSHIP

TEN TOWNS, ONE COMMUNITY



TOWNSHIP OF WOODBRIDGE

MIDDLESEX COUNTY NEW JERSEY

Stormwater Pollution Prevention Plan

Municipality: Woodbridge

County: Middlesex

Permit Number NJG 0148857

Annual Review Date: Stormwater: January 29, 2024

Program Coordinator: Michael Gelin

Active Construction Projects +

Floodplain Management +

FEMA Flood Zones (FIRM Map Panels)

Stormwater Management

Construction Details

Sanitary Sewer

Floodplain Development Permit Application

Green Infrastructure

Thornall Street Culvert Replacement

[Home](#) / [Government](#) / [Departments](#) / [Division of Engineering](#) / [Stormwater Management](#)

Stormwater Management

Regulated by the State & Pollution Permit

Woodbridge Township operates and maintains its stormwater collection system in accordance with the rules and regulations promulgated by the New Jersey Department of Environmental Protection and in accordance with the terms and conditions of a New Jersey Pollution Discharge Elimination System.

Stormwater Quick Links

- [2019 Stormwater Pollution Prevention Plan \(PDF\)](#)
- [Animal Control Ordinance - Chapter 11](#)
- [Areas of Special Flood Hazard Ordinance - Chapter 150.82](#)

<https://www.twp.woodbridge.nj.us/195/Stormwater-Management>



Stormwater Literature

- [Stormwater Management Plan](#)
- [Stormwater Pollution Prevention Plan \(PDF\)](#)
- [Stormwater Management \(PDF\)](#)
- [Car Wash Brochure \(PDF\)](#)
- [Clean Water Ranger Booklet \(PDF\)](#)
- [Fertilizing Brochure \(PDF\)](#)
- [Ground Water Brochure \(PDF\)](#)
- [Motor Oil Brochure \(PDF\)](#)
- [Nonpoint Source Pollution Brochure \(PDF\)](#)
- [Pet Waste Brochure \(PDF\)](#)
- [Pick Up After Your Pet Brochure \(PDF\)](#)
- [Pond and Wetlands Maintenance Guide \(PDF\)](#)
- [Solutions to Stormwater Pollution \(PDF\)](#)
- [Stormwater Brochure \(PDF\)](#)
- [Urbanization Brochure \(PDF\)](#)
- [What's a Watershed? \(PDF\)](#)
- [Stormwater Public Education Cartoons \(PDF\)](#)
- [Woodbridge Spill Prevention Control and Countermeasure \(PDF\)](#)
- [Stormwater Public Education Cartoons \(PDF\)](#)
- [Woodbridge Spill Prevention Control and Countermeasure Pumping Station \(PDF\)](#)
- [How To Prevent Stormwater Pollution Pamphlet \(PDF\)](#)
- [Stormwater Discharge General Permit Authorization Renewal \(PDF\)](#)
- [Tier A Municipal Stormwater General Permit](#)
- [Land Use Ordinance - Chapter 150](#)
- [Water Pollution Control Regulations - Chapter 23](#)
- [Watershed Master Plan](#)

The Township Stormwater Network

- [Municipal Stormwater Control Ordinance](#)
- [New Jersey Department of Environmental Protection](#)
- [NJDEP Bureau of Nonpoint Pollution Control Supplemental Education Information](#)
- [Property Maintenance Ordinance - Chapter 18](#)
- [Sewers Ordinance - Chapter 28](#)
- [Solid Waste Management Ordinance - Chapter 27](#)
- [Stormwater: Best Practices for Homeowners](#)

[View All Links](#)

Form 1 – Team Members

Stormwater Program Coordinator (SPC)			
Name and Title		Michael Gelin Municipal Engineer	
Phone	732-602-6047	Email	michael.gelin@twp.woodbridge.nj.us
Individual(s) Responsible for Major Development Project Stormwater Management Review			
Name and Title		Michael Gelin Municipal Engineer	
Phone	732-602-6047	Email	michael.gelin@twp.woodbridge.nj.us
Name and Title			
Phone		Email	
Other Municipal Stormwater Team Members			
Name and Title		Terence Vogt, Principal, Regional Manager Remington & Vernick Engineers, Inc	
Phone	732-955-8000 ext. 1709	Email	terry.vogt@rve.com
Name and Title		Jason Cline, Associate Remington & Vernick Engineers, Inc	
Phone	732-955-8000 ext. 2815	Email	jason.cline@rve.com

Section B: Minimum Standards for Public Involvement and Participation

- Comply with applicable State and local public notice requirements
- Develop a municipal stormwater webpage
- Stormwater Pollution Prevention Plan (SPPP) (excluding inspection logs and other recordkeeping documents)
- Municipal Stormwater Management Plan (MSWMP)
- Stormwater Control Ordinance (SCO)
- Pet Waste Ordinance
- Wildlife Feeding Ordinance
- Litter Control Ordinance
- Improper Disposal of Waste Ordinance
- Containerized Yard Waste/Yard Waste Collection Program Ordinances
- Private Storm Drain Inlet Retrofitting Ordinance
- Illicit Connection Ordinance
- Tree Removal/Replacement Ordinance
- Privately-Owned Salt Storage Ordinance
- MS4 Outfall Pipe Map
- MS4 Infrastructure Map
- Watershed Improvement Plan

Active Construction Projects +

Floodplain Management +

FEMA Flood Zones (FIRM Map Panels)

Stormwater Management

GIS Information Viewer

Maps +

Road Opening Permit & Construction Details

Sanitary Sewer

Floodplain Development Permit Application

Green Infrastructure

Thornall Street Culvert Replacement

[Home](#) / [Government](#) / [Departments](#) / [Division of Engineering](#) / [Stormwater Management](#)

Stormwater Management

Regulated by the State & Pollution Permit

Woodbridge Township operates and maintains its stormwater collection system in accordance with the rules and regulations promulgated by the New Jersey Department of Environmental Protection and in accordance with the terms and conditions of a New Jersey Pollution Discharge Elimination System Permit. This webpage has been created in order to provide the public access to information associated with the Township's Stormwater Management Program.



Stormwater Literature

- [Stormwater Management Plan](#)
- [Stormwater Pollution Prevention Plan \(PDF\)](#)
- [Stormwater Management \(PDF\)](#)
- [Car Wash Brochure \(PDF\)](#)
- [Clean Water Ranger Booklet \(PDF\)](#)
- [Fertilizing Brochure \(PDF\)](#)
- [Ground Water Brochure \(PDF\)](#)
- [Motor Oil Brochure \(PDF\)](#)
- [Nonpoint Source Pollution Brochure \(PDF\)](#)
- [Pet Waste Brochure \(PDF\)](#)
- [Pick Up After Your Pet Brochure \(PDF\)](#)
- [Pond and Wetlands Maintenance Guide \(PDF\)](#)
- [Solutions to Stormwater Pollution \(PDF\)](#)
- [Stormwater Brochure \(PDF\)](#)
- [Urbanization Brochure \(PDF\)](#)
- [What's a Watershed? \(PDF\)](#)
- [Stormwater Public Education Cartoons \(PDF\)](#)
- [Woodbridge Spill Prevention Control and Countermeasure \(PDF\)](#)
- [Stormwater Public Education Cartoons \(PDF\)](#)
- [Woodbridge Spill Prevention Control and Countermeasure Pumping Station \(PDF\)](#)
- [How To Prevent Stormwater Pollution Pamphlet \(PDF\)](#)
- [Stormwater Discharge General Permit Authorization Renewal \(PDF\)](#)
- [Tier A Municipal Stormwater General Permit](#)
- [Land Use Ordinance - Chapter 150](#)
- [Water Pollution Control Regulations - Chapter 23](#)
- [Watershed Master Plan](#)

Stormwater Quick Links

- [2019 Stormwater Pollution Prevention Plan \(PDF\)](#)
- [Animal Control Ordinance - Chapter 11](#)
- [Areas of Special Flood Hazard Ordinance - Chapter 150.82](#)
- [Clean Water New Jersey](#)
- [Environmental Commission](#)
- [Flood Damage Prevention Ordinance - Chapter 22](#)
- [GIS Information Viewer: To View the Township Stormwater Network](#)
- [Municipal Stormwater Control Ordinance](#)
- [New Jersey Department of Environmental Protection](#)
- [NJDEP Bureau of Nonpoint Pollution Control: Supplemental Education Information](#)
- [Property Maintenance Ordinance - Chapter 18](#)
- [Sewers Ordinance - Chapter 28](#)
- [Solid Waste Management Ordinance - Chapter 27](#)
- [Stormwater: Best Practices for Homeowners](#)

[View All Links](#)

Section C Further Details: Minimum Standards for Local Public Education

Implement a Public Education and Outreach Program

- Earn 12+ points each year from three of the five categories



Points system for public education and outreach activities

Category 1: General Public Outreach

- Social Media (3)
- Newspaper Ad (1)
- Radio/Television (2)
- Green Infrastructure Signage (5)
- Mural (2)
- Billboard/Sign (2)
- Stormwater Facility Signage (5)

Category 2: Targeted Audiences Outreach

- Stormwater Display (1)
- Promotional Item (2)
- Private Stormwater Facilities Education (3)
- Mailing or e-mailing Campaign (2)
- Ordinance Education (3)

Category 3: School/Youth Education and Activities

- School Presentations (5)
- Water Education Workshops (2)
- Storm Drain Labeling (3)
- Educational Contest for Schools (3)
- AmeriCorps Event (4)
- Clean-up (3)

Category 4: Watershed/Regional Collaboration

- Regional Stormwater Collaboration (3)
- Green Infrastructure Workshop (3)
- Community Activity (3)

Category 5: Community Involvement Activities

- Volunteer Stormwater Assessment or Stream Monitoring (3)
- Rain Barrel Workshop (3)
- Rain Garden Workshop (3)
- Community Event (3)
- Community Involvement (5)

Section D: Minimum Standards for Construction Site Stormwater Runoff

Permit for construction site stormwater runoff activities

- A General NJPDES Permit NJ0088323: Stormwater Discharge Master General Permit (from NJDEP)
- Soil Erosion and Sediment Control Permit (from local Soil Conservation District)

**Section E: Minimum Standards for
Post Construction Stormwater
Management in New Development and
Redevelopment**

N.J.A.C. 7:8 - Stormwater Management Regulations

Goal is to minimize the adverse impact of stormwater runoff on water quality and water quantity and loss of groundwater recharge in receiving water bodies.

New Jersey Stormwater Management Rules

Rules apply to any “Major Development” defined as a project disturbing more than 1 acre or increasing impervious surfaces by $\frac{1}{4}$ acre or more

Design and Performance Standards established in NJAC 7:8-5, for:

- Stormwater Quantity

- Groundwater Recharge

- Stormwater Quality

- Stormwater Maintenance Plan

Water Quantity Performance Standards

- Demonstrate that post-development 2, 10, and 100-year storm event hydrographs do not exceed pre-development hydrographs
or
- Demonstrate that hydrograph peaks will not increase and that increase in volume or change in timing won't increase flood damage downstream
or
- Design BMPs so that 2, 10, and 100-year pre-development hydrographs are reduced to 50%, 75%, and 80%, respectively
 - ✓ 2-year rainfall
 - ✓ 10-year rainfall
 - ✓ 100-year rainfall

Groundwater Recharge Performance Standards

- Maintain 100% of average annual groundwater recharge volume

or

- Infiltrate increase in the post development runoff volume for the 2-year storm

Water Quality Performance Standards

- Install BMPs to reduce at least 80% of total suspended solids (TSS) loads
- Install BMPs to provide nutrient removal to maximum extent feasible

<u>BMP</u>	<u>TSS Removal Rate</u>
Bioretention	90%
Constructed Wetlands	90%
Forested Buffers	70%
Extended Detention Basin	40-60%
Infiltration Structure	80%
Sand Filter	80%
Vegetative Filter Strip	50%
Wet Pond	60-90%

SOURCE: NJ Stormwater Management Rules
and BMP Manual

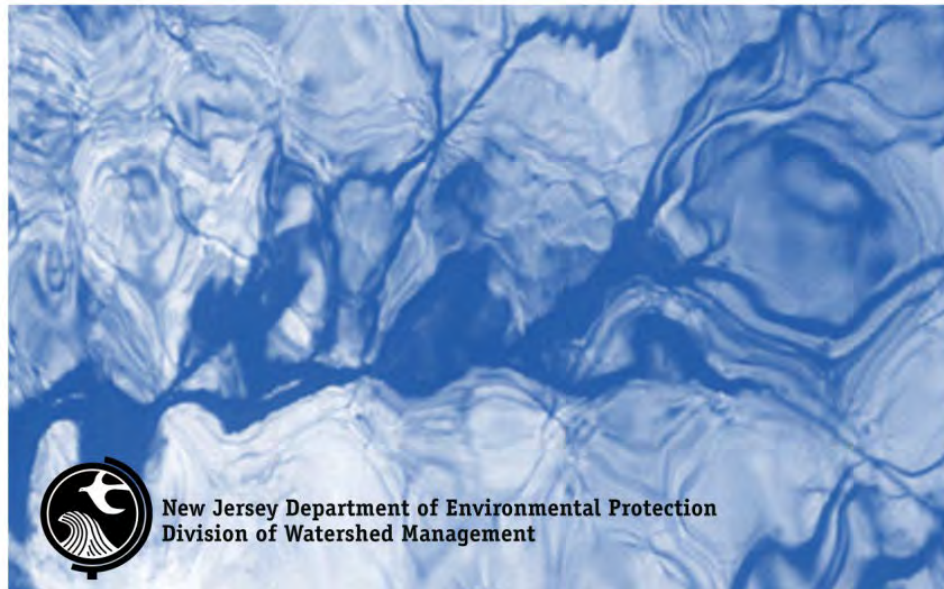
NJ Stormwater Guidance



New Jersey

Stormwater

Best Management Practices Manual



2019 Revisions

1. The current requirement that major developments incorporate nonstructural stormwater management strategies to the “maximum extent practical” to meet groundwater recharge standards, stormwater runoff quantity standards, and stormwater runoff quality standards, with a requirement that green infrastructure be utilized to meet these same standards.
2. Total suspended solids (TSS) removal only applies to runoff from motor vehicle surfaces

NJDEP Green Infrastructure Definition

A stormwater management measure that manages stormwater close to its source by:

1. Treating stormwater runoff through infiltration into subsoil
2. Treating stormwater runoff through filtration by vegetation or soil
3. Storing stormwater runoff for reuse



Green Infrastructure Standard

- Green infrastructure best management practices (BMP) must be used to satisfy recharge, quantity, and quality
- Three tables identifying the performance of each BMP in meeting the three standards
 - ✓ Water Quality & Recharge – BMPs in Table 1
 - ✓ Quantity – BMPs in Table 1 or Table 2
 - ✓ If received a variance – BMPs in Table 1, Table 2, or Table 3
- Maintain existing ability to propose an alternative stormwater design
 - ✓ Alternative design must meet green infrastructure definition and must meet drainage area limitation if similar to BMP with limit

Table 1

Best Management Practice	Quality TSS removal rate (%)	Quantity	Recharge	Minimum separation from seasonal high-water table (ft)
Bioretention Systems	80 or 90	Yes	Yes	2
			No	1
Cisterns	0	Yes	No	-
Dry Wells	0	No	Yes	2
Grass Swales	50 or less	No	No	2
Green Roofs	0	Yes	No	-
Infiltration Basins	80	Yes	Yes	2
Manufactured Treatment Device	50 or 80	No	No	Dependent upon the device
Pervious Paving Systems	80	Yes	Yes	2
			No	1
Sand Filters	80	Yes	Yes	2
Vegetative Filter Strips	60-80	No	No	-

- Table 1 BMPs shall be used for recharge, quantity, and quality
- Drainage area limitation applies to bioretention basins, dry wells, infiltration basins, manufactured treatment devices, and sand filters

Table 2

Best Management Practice	Quality TSS removal rate (%)	Quantity	Recharge	Minimum separation from seasonal high water table (ft)
Bioretention Systems	80 or 90	Yes	Yes	2
			No	1
Infiltration Basins	80	Yes	Yes	2
Standard Constructed Wetlands	90	Yes	No	N/A
Wet Ponds	50-90	Yes	No	N/A

Table 2 BMPs may only be used for quantity

Table 3

Best Management Practice	Quality TSS removal rate (%)	Quantity	Recharge	Minimum separation from seasonal high water table (ft)
Blue Roofs	0	Yes	No	N/A
Extended Detention Basins	40-60	Yes	No	1
Manufactured Treatment Device	50 or 80	No	No	Dependent upon the device
Sand Filters	80	Yes	No	1
Subsurface Gravel Wetlands	90	No	No	1
Wet ponds	50-90	Yes	No	N/A

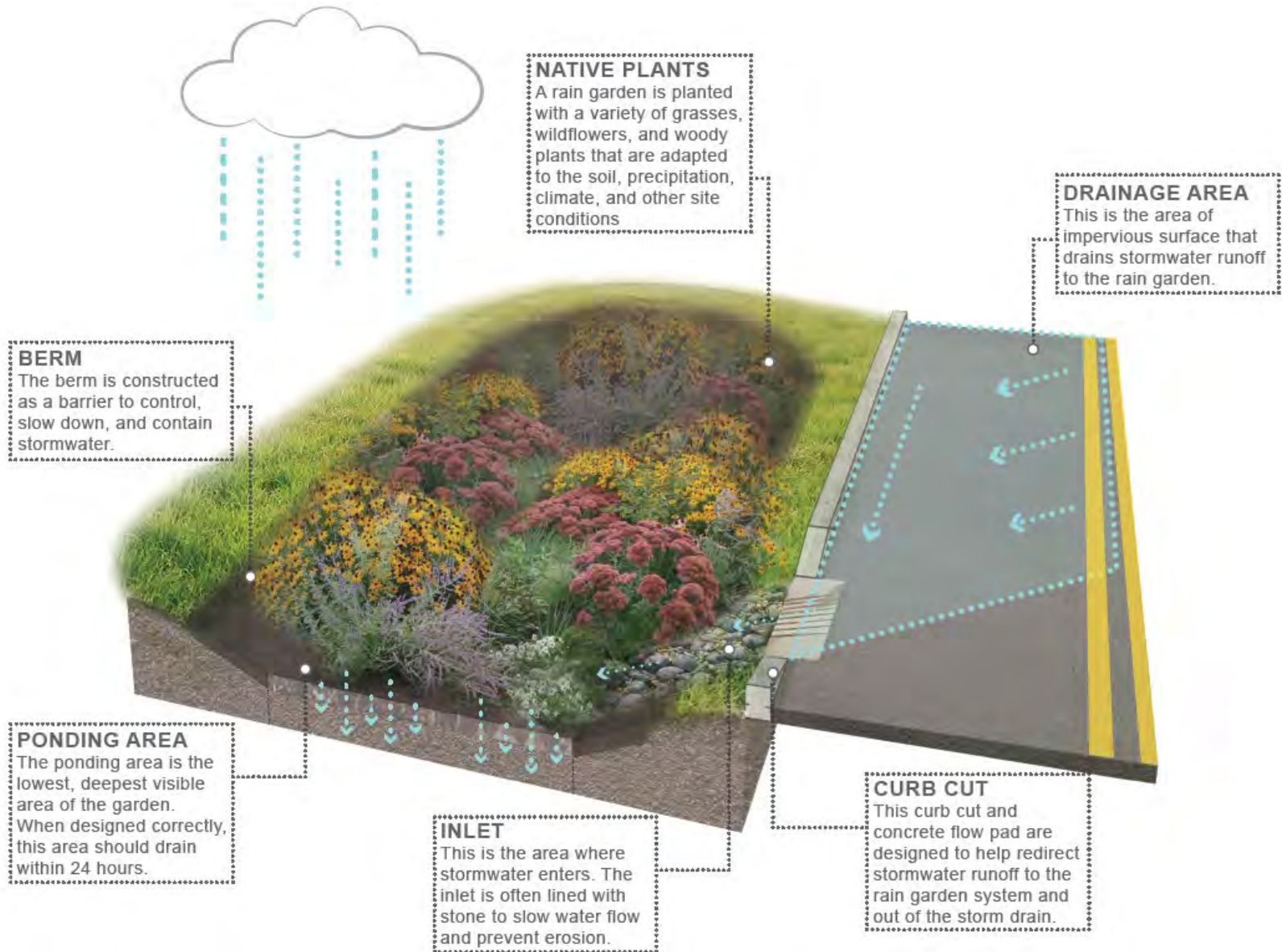
Table 3 BMPs may only be used if a variance is granted

**Let's talk about the practicality of these
new regulations**

Table 1

Best Management Practice	Quality TSS removal rate (%)	Quantity	Recharge	Minimum separation from seasonal high-water table (ft)
Bioretention Systems	80 or 90	Yes	Yes	2
			No	1
Cisterns	0	Yes	No	-
Dry Wells	0	No	Yes	2
Grass Swales	50 or less	No	No	2
Green Roofs	0	Yes	No	-
Infiltration Basins	80	Yes	Yes	2
Manufactured Treatment Device	50 or 80	No	No	Dependent upon the device
Pervious Paving Systems	80	Yes	Yes	2
			No	1
Sand Filters	80	Yes	Yes	2
Vegetative Filter Strips	60-80	No	No	-

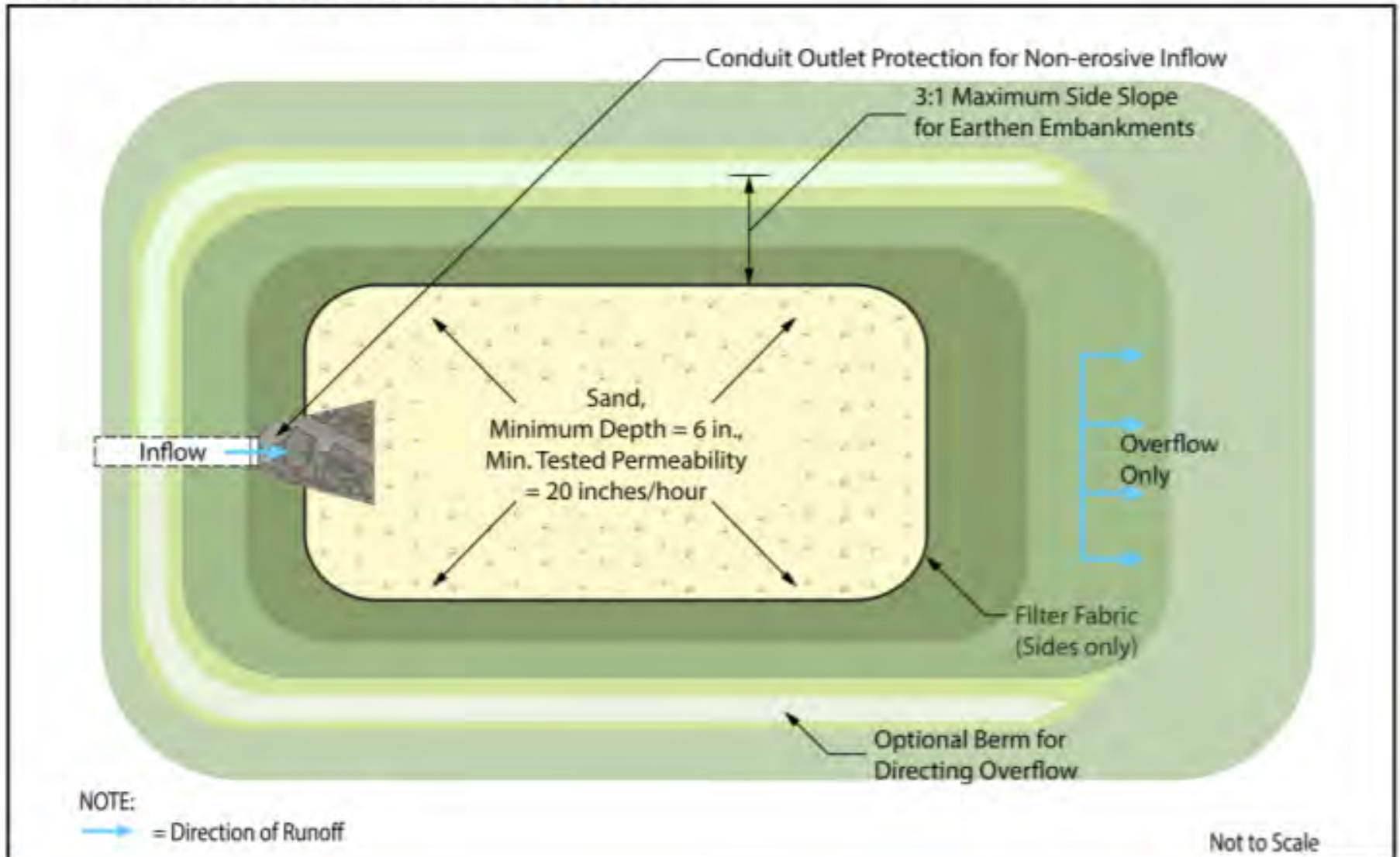
Bioretention Systems



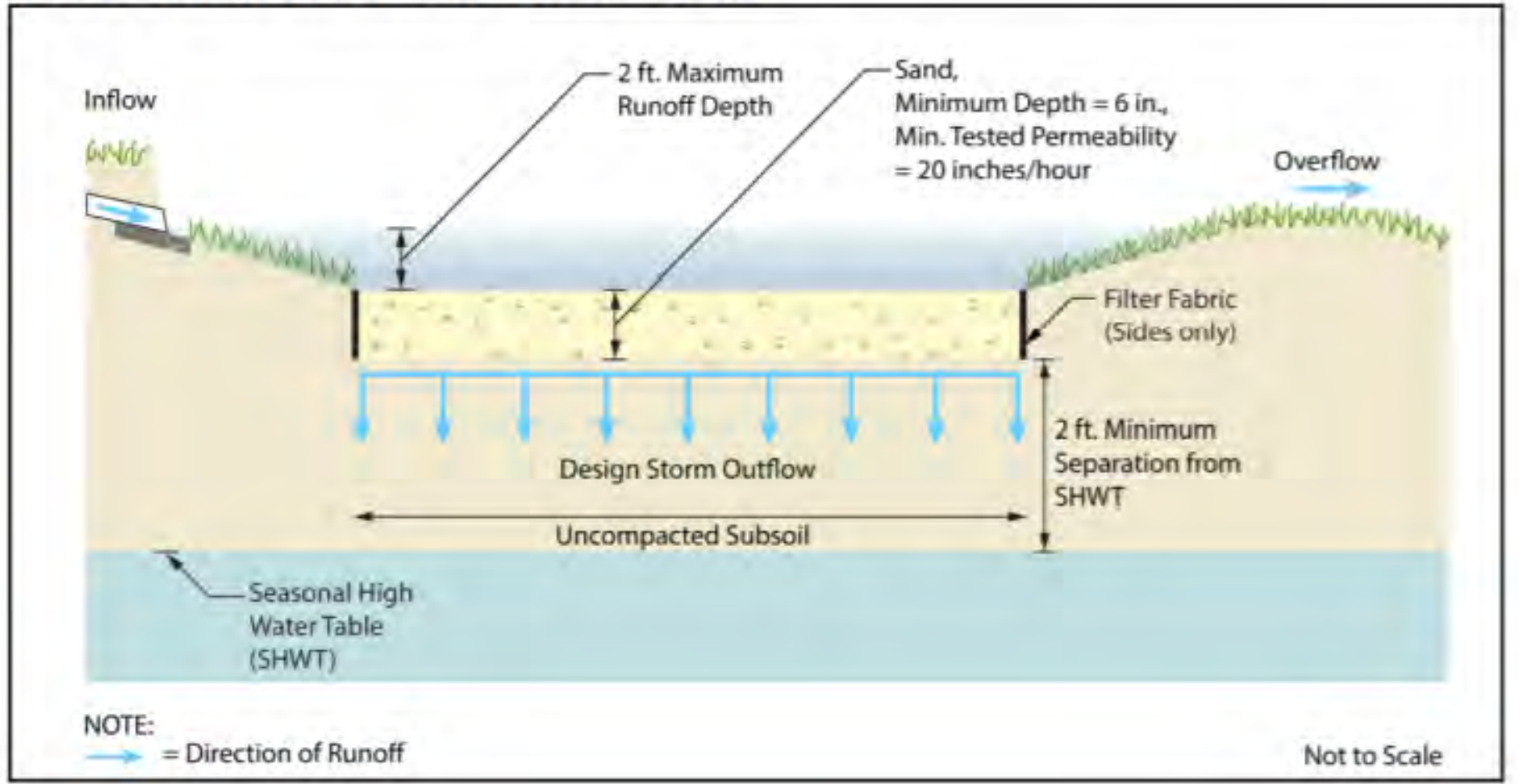


Infiltration Systems

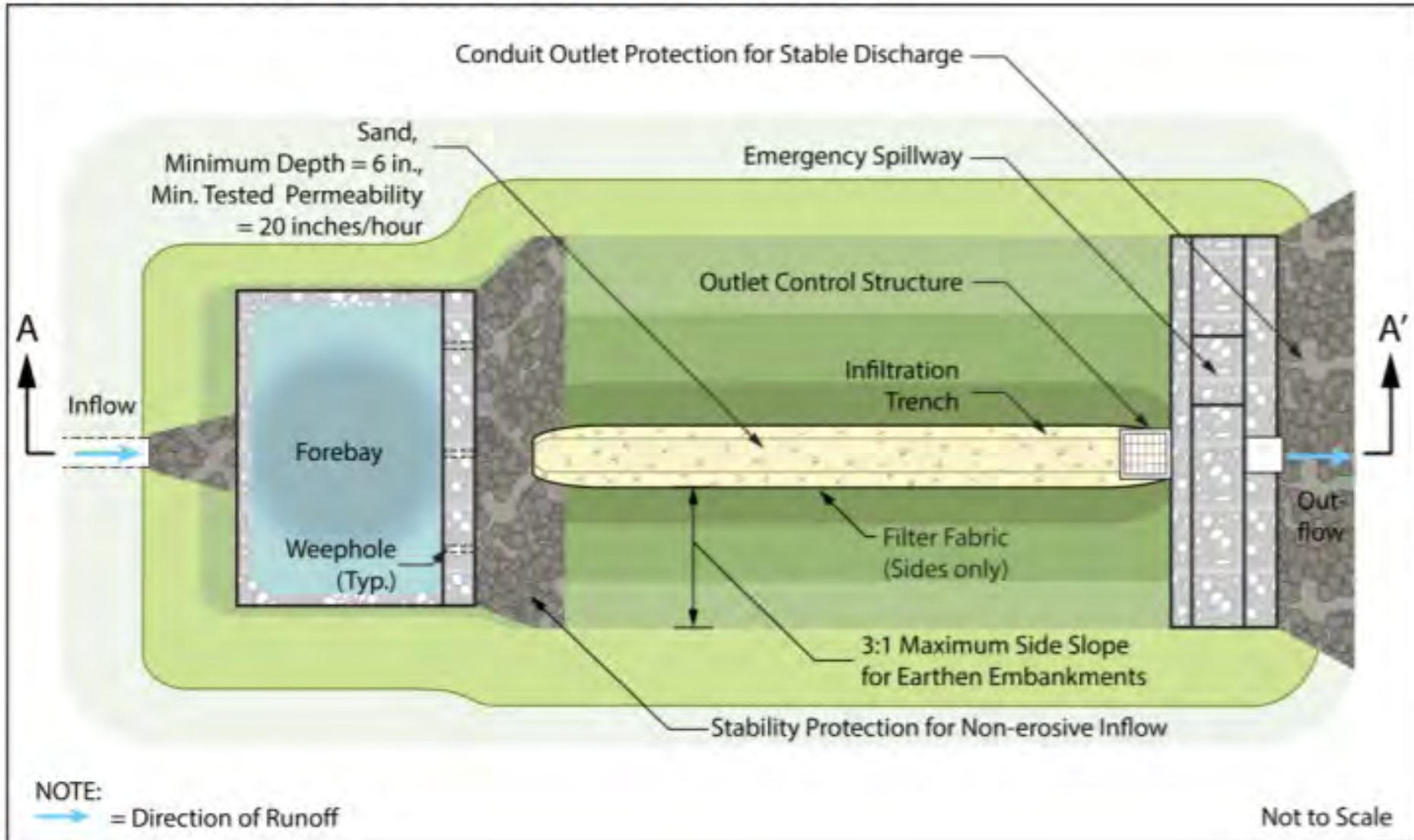
Surface Infiltration Basin – Plan View



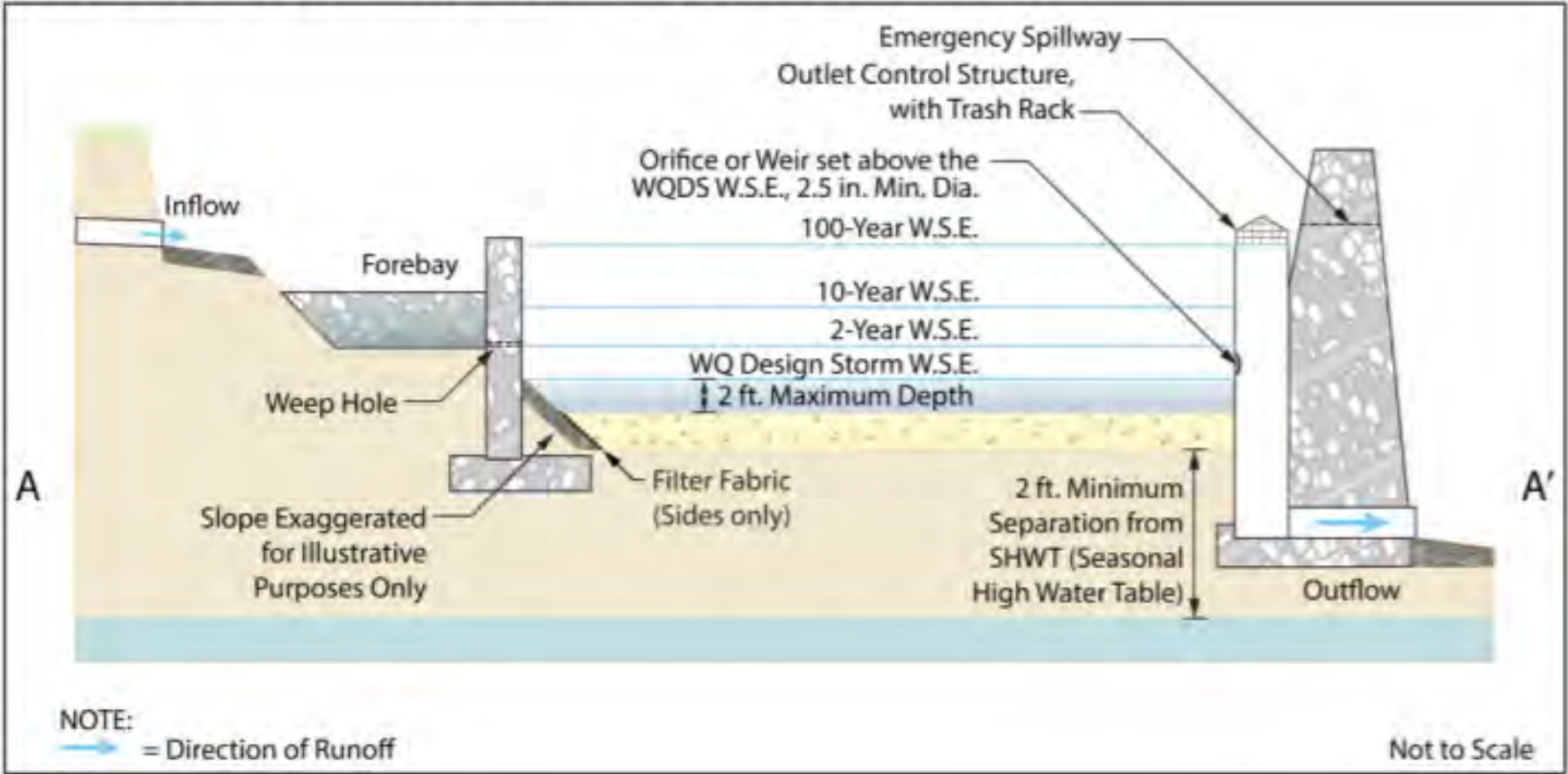
Surface Infiltration Basin – Profile View



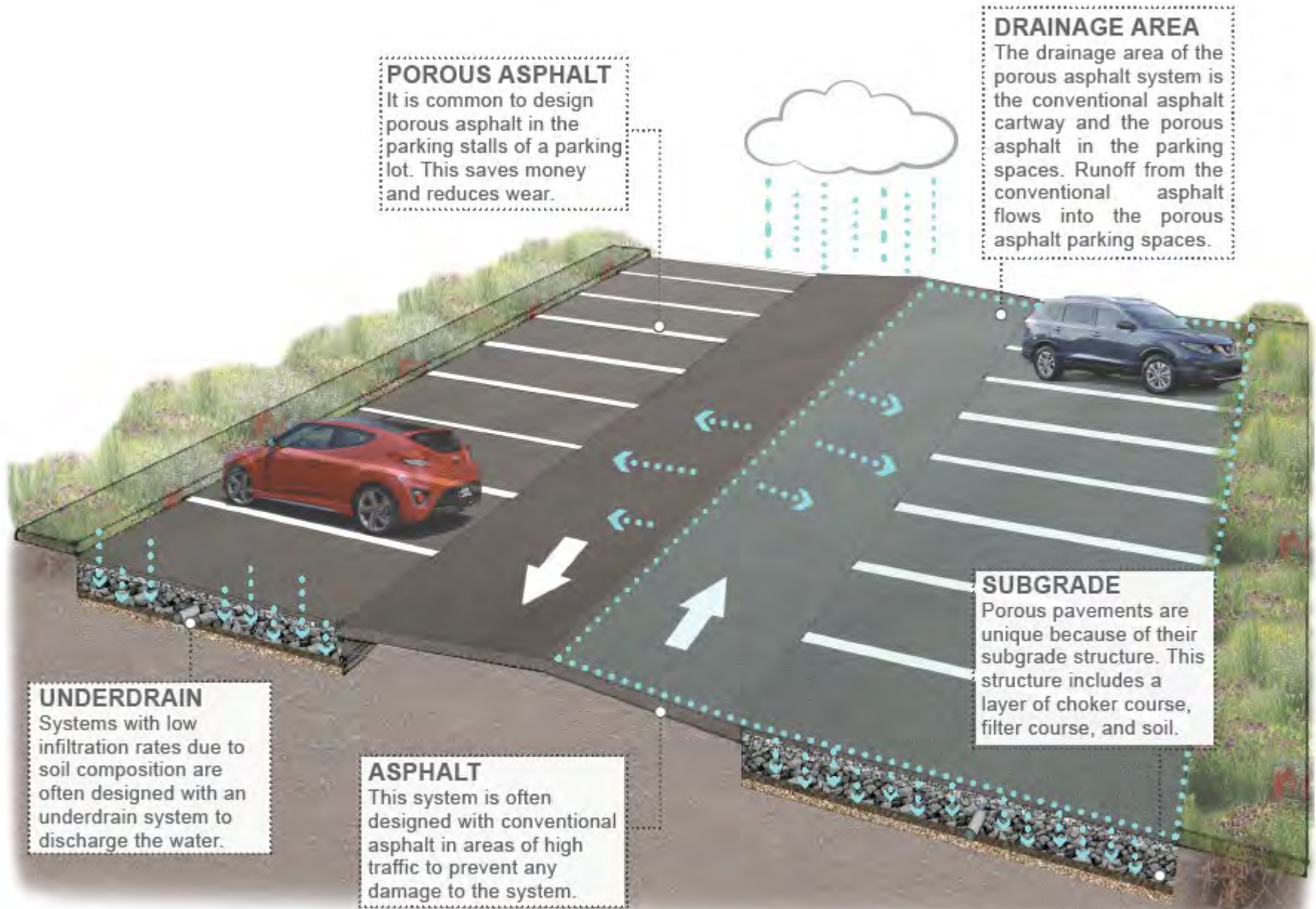
Infiltration - Extended Detention Basin: Plan View



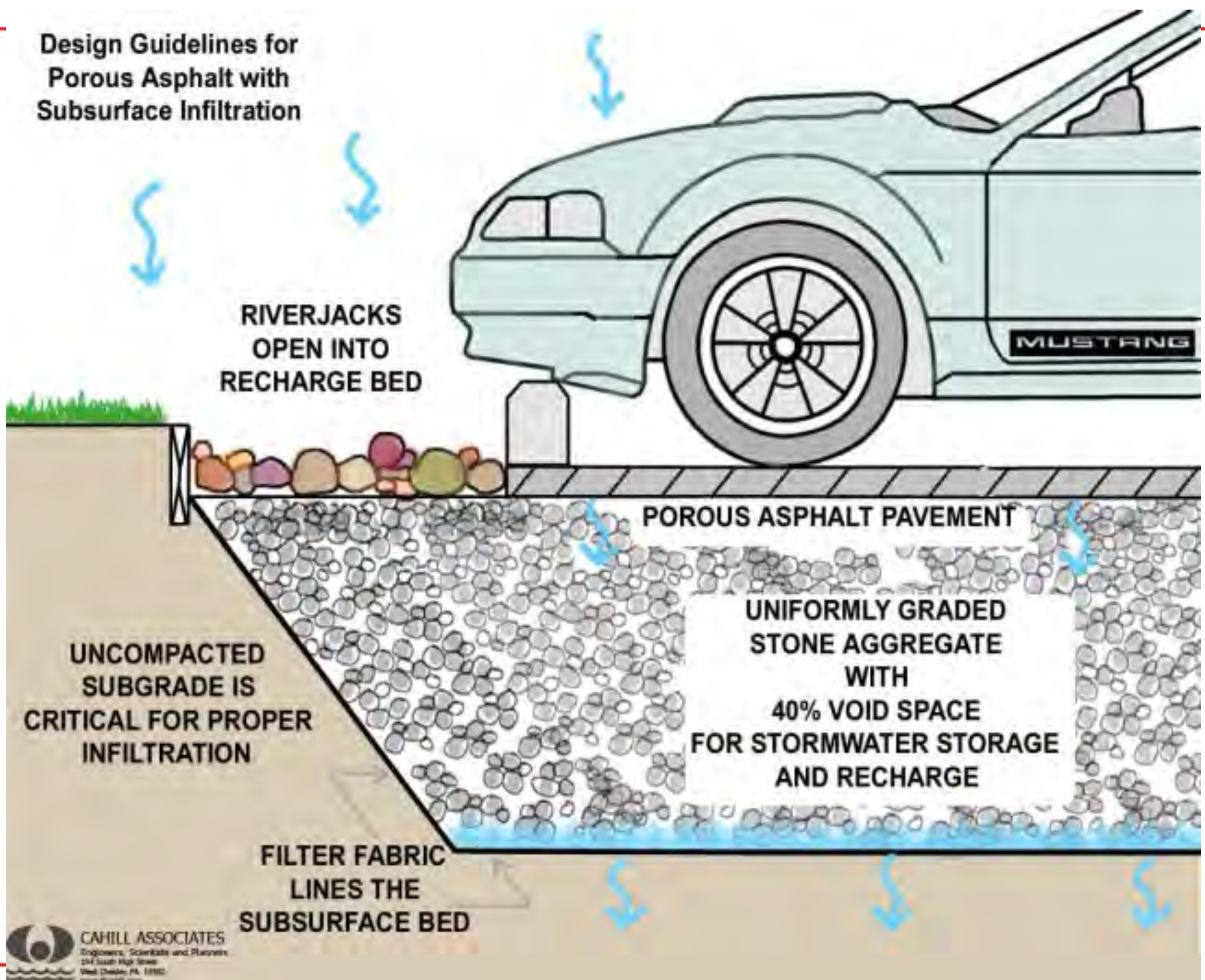
Infiltration – Extended Detention Basin: Profile View



Pervious Paving Systems

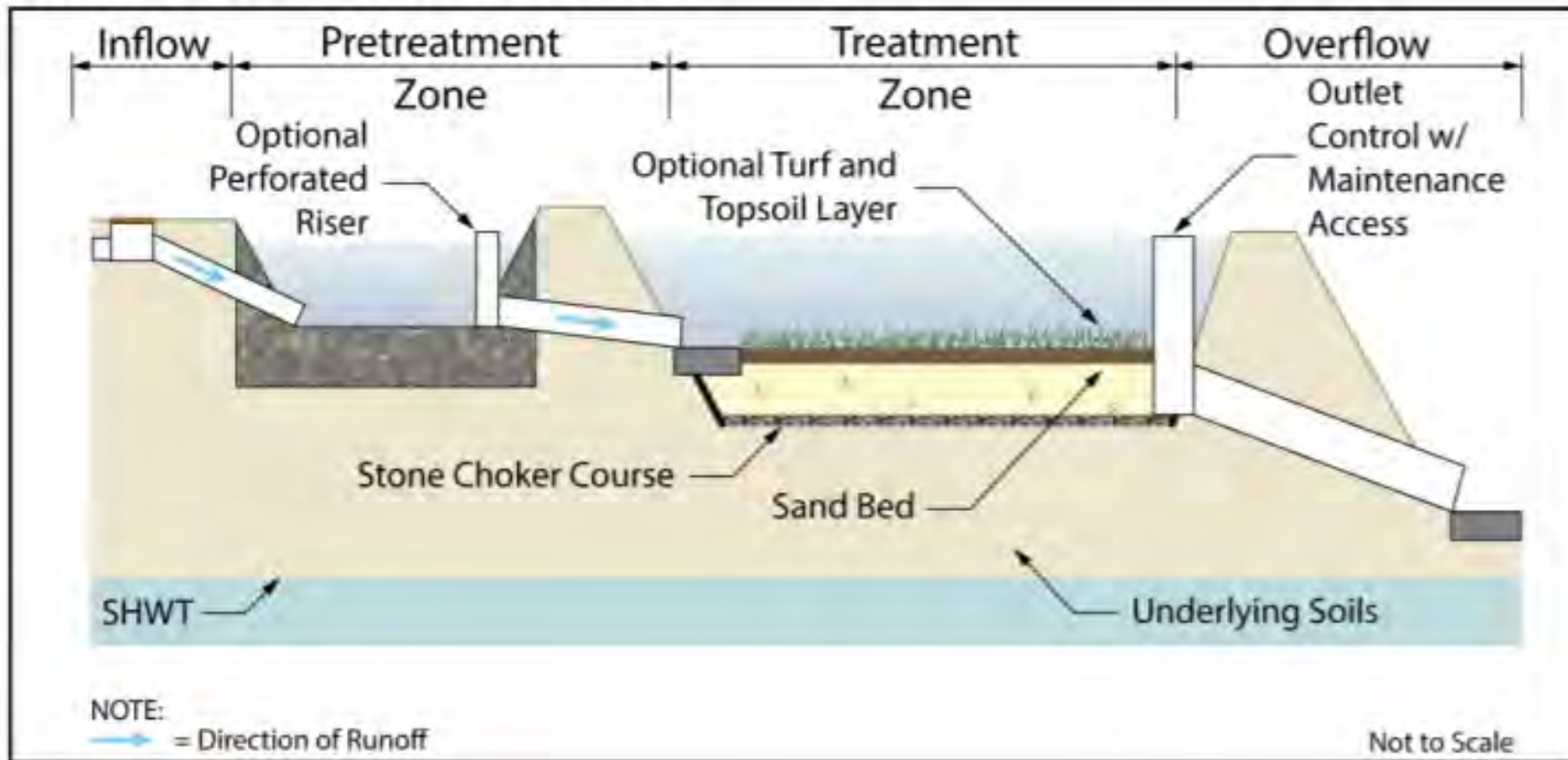


Design Guidelines for Porous Asphalt with Subsurface Infiltration

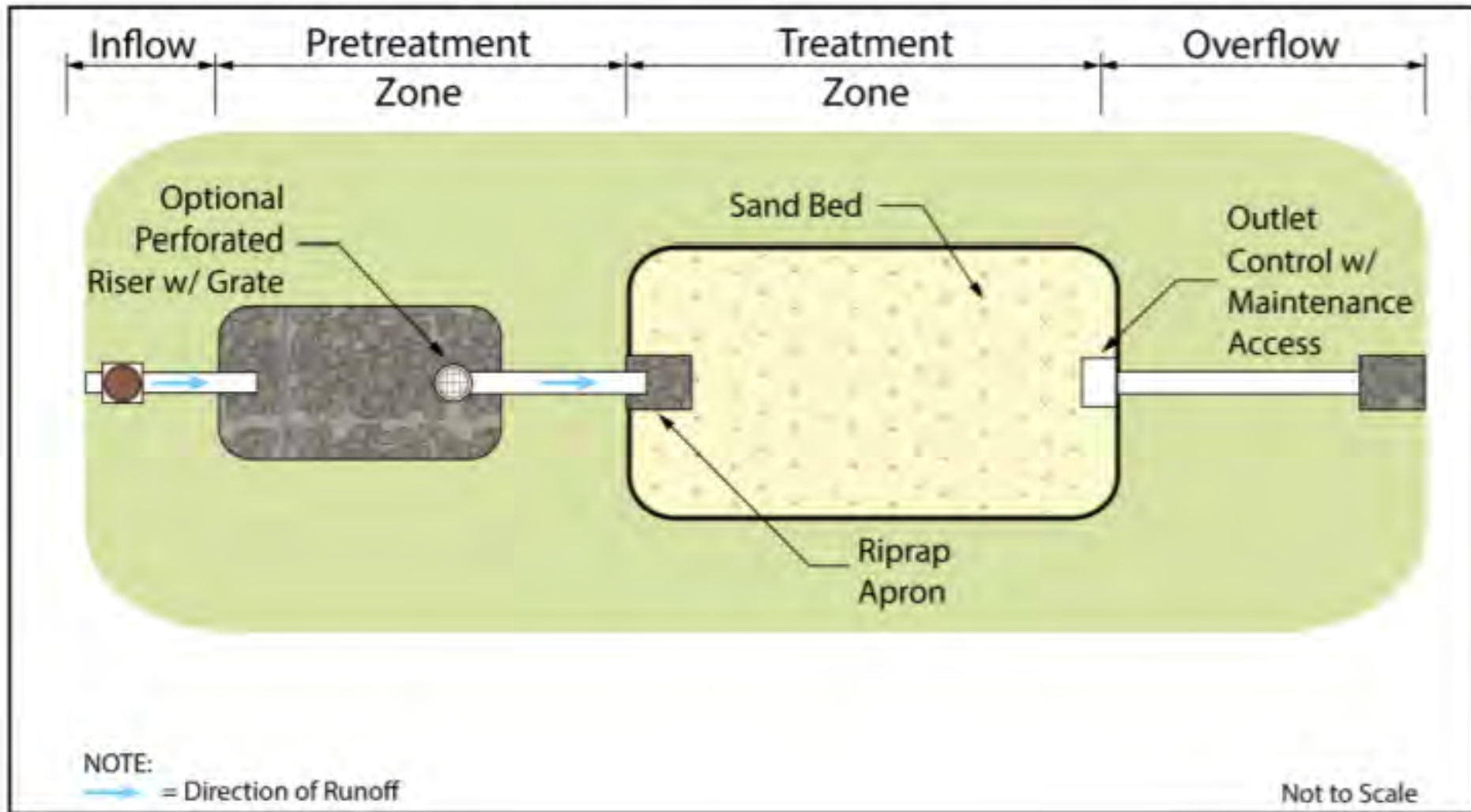


Sand Filter

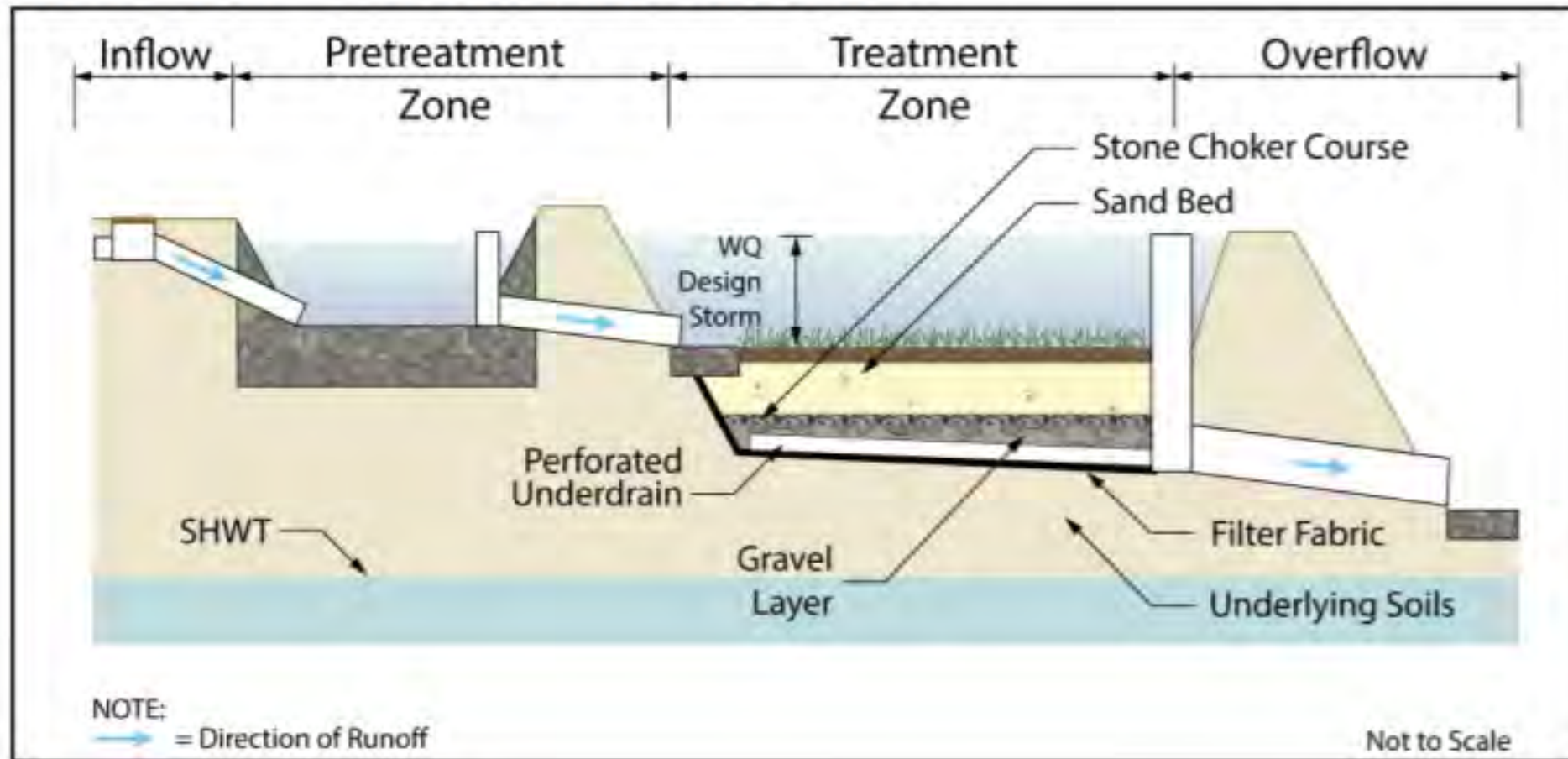
Profile View – Sand Filter Basics



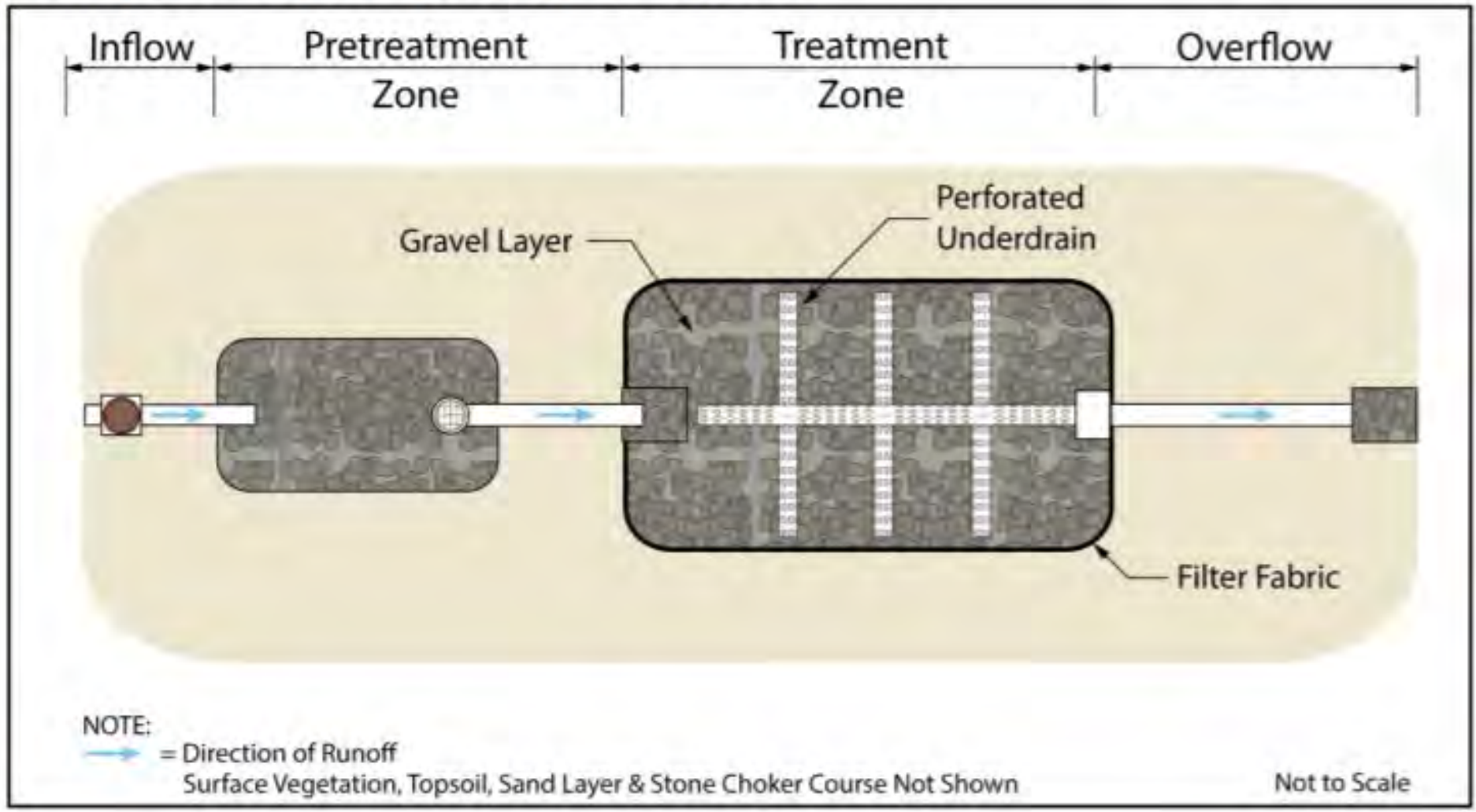
Plan View – Sand Filter Basics



Profile View – Sand Filter with Underdrain



Plan View – Sand Filter with Underdrain



**On July 17, 2023, NJDEP revised
Stormwater Management Rules
Flood Hazard Area Control Act
Rules**

2100 Projection

Future Precipitation Change Factors

County	2-year Design Storm	10-year Design Storm	100-year Design Storm
Atlantic	1.22	1.24	1.39
Bergen	1.20	1.23	1.37
Burlington	1.17	1.18	1.32
Camden	1.18	1.22	1.39
Cape May	1.21	1.24	1.32
Cumberland	1.20	1.21	1.39
Essex	1.19	1.22	1.33
Gloucester	1.19	1.23	1.41
Hudson	1.19	1.19	1.23
Hunterdon	1.19	1.23	1.42
Mercer	1.16	1.17	1.36

Future Precipitation Change Factors

County	2-year Design Storm	10-year Design Storm	100-year Design Storm
Middlesex	1.19	1.21	1.33
Monmouth	1.19	1.19	1.26
Morris	1.23	1.28	1.46
Ocean	1.18	1.19	1.24
Passaic	1.21	1.27	1.50
Salem	1.20	1.23	1.32
Somerset	1.19	1.24	1.48
Sussex	1.24	1.29	1.50
Union	1.20	1.23	1.35
Warren	1.20	1.25	1.37

2020 Projection

Current Precipitation Adjustment Factors			
County	2-year	10-year	100-year
Atlantic	1.01	1.02	1.03
Bergen	1.01	1.03	1.06
Burlington	0.99	1.01	1.04
Camden	1.03	1.04	1.05
Cape May	1.03	1.03	1.04
Cumberland	1.03	1.03	1.01
Essex	1.01	1.03	1.06
Gloucester	1.05	1.06	1.06
Hudson	1.03	1.05	1.09
Hunterdon	1.02	1.05	1.13
Mercer	1.01	1.02	1.04

Current Precipitation Adjustment Factors			
County	2-year	10-year	100-year
Middlesex	1.00	1.01	1.03
Monmouth	1.00	1.01	1.02
Morris	1.01	1.03	1.06
Ocean	1.00	1.01	1.03
Passaic	1.00	1.02	1.05
Salem	1.02	1.03	1.03
Somerset	1.00	1.03	1.09
Sussex	1.03	1.04	1.07
Union	1.01	1.03	1.06
Warren	1.02	1.07	1.15

Section F Further Details: Minimum Standards for Pollution Prevention/ Good Housekeeping for Municipal Operators

1. Community-wide Ordinances

- Pet Waste, Wildlife Feeding, Litter Control, Improper Waste Disposal, Yard Waste, Private Inlet Retrofitting, Privately-Owned Salt Storage, Tree Removal/Replacement

2. Community-wide Measures

- Street Sweeping (triannual w/ inlets, annual w/o inlets)
- Storm drain labeling and retrofitting
- Herbicide Management (don't apply near storm drains or steep ground)
- Excess De-Icing Material (remove within 72 hours excess salt piles)
- Roadside Vegetative Waste management (proper disposal of yard waste)
- Roadside Erosion Control (inspect municipal roads annually for erosion)

3. Inspection and Maintenance of Stormwater Facilities Owned and Operated

- See future slides

4. Inspection and Maintenance of Stormwater Facilities Not Owned and Operated

- Certify annually that facilities not owned or operated by the town constructed after February 7, 1984 are adequately cleaned and maintained

Section F Further Details

5. Municipal Maintenance Yards

- Many requirements in this section that should be reviewed. Focus on identifying possible sources of contamination to stormwater discharge on maintenance yards and how materials are stored.

6-10. Trainings

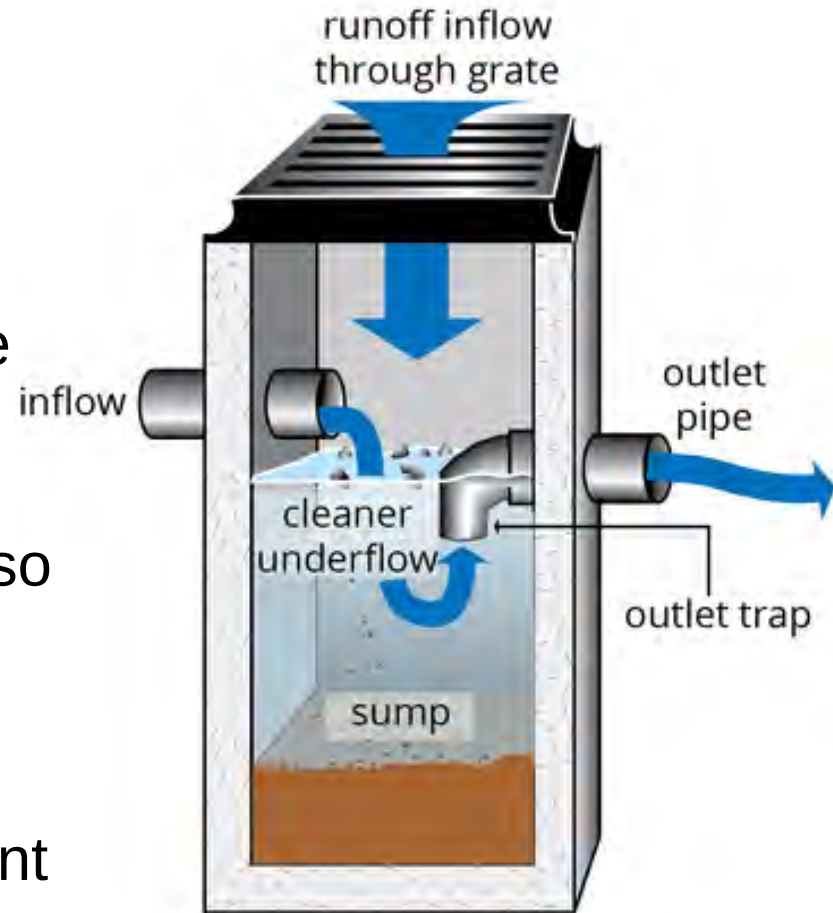
6. Stormwater Program Coordinator Training (participate in Department free training webinar within EDPA + 36 months and once per permit cycle thereafter)
7. Annual Employee Training (individual responsible for implementation of MS4 permit receive annual training, i.e. governing body members, municipal employees in public works, engineering, etc.)
8. Stormwater Management Design Review Training (those that review and approve stormwater management designs for major development complete required Department Training, once every 5 years)
9. Stormwater Management Rule Amendment Training (if permit amended complete training as require within a year of adoption)
10. Municipal Board and Governing Body Member Training (Complete “Asking the Right Question” Tool, to be completed once per term of service)

Section F: Inspection and Maintenance of Stormwater Facilities Owned and Operated by Permittee

- i. Storm drain inlet inspection
- ii. Storm drain inlet cleaning and maintenance
- iii. Catch basin inspection
- iv. Catch basin cleaning
- v. MS4 conveyance inspection and cleaning
- vi. Stormwater infrastructure inspection
- vii. Stormwater infrastructure maintenance
- viii. Inspection and maintenance logs
- ix. Annual report

Tier A MS4 Permit Definitions

- "Catch Basin" means a cistern, vault, chamber or well that is typically built along a street and below an inlet grate as part of the storm sewer system that is designed to capture and retain sediment, debris, and pollutants so those particles do pass on to the stormwater sewer system.
- "Storm drain inlet" means the point of entry into the storm drain system and is, where a catch basin is present, the uppermost portion (or cover) of a catch basin.



Summary of MS4 Requirements

Inspect storm drain inlets once per year

- Clean and maintain as frequently as necessary

Inspect catch basins once every 5 years

- Clean catch basins as needed, about 1/3 of basin filled with sediment

Inspect Conveyance structures

- Clean and maintain on as needed basis

Summary of MS4 Requirements

Stormwater Infrastructure inspected according to approved maintenance plan

- Stormwater basins and other structures, i.e. underground storage systems, green stormwater infrastructure
- Maintain as needed according to maintenance plan
- If there is no approved maintenance plan, inspect at least 4 times per year and after each rainstorm exceeding 1 inch of total rainfall

Summary of MS4 Requirements

For Stormwater Infrastructure not owned and operated by the Permittee:

- The permittee shall develop, update, implement and enforce a program to ensure adequate long-term cleaning, operation and maintenance of stormwater facilities not owned or operated by the permittee.

Summary of MS4 Requirements

- Log activities to show compliance
- Correct maintenance and repairs within 90 day of discovery, unless authorized by DEP
- Certify in the MSRP Annual Report if facilities have been inspected, maintained, and properly function

Section F: Municipal Maintenance Yards

- a. Document best management practices
- b. Site inspections (monthly wet and dry weather)
- c. Inventory list (material and machinery)
- d. Container labels
- e. Spill kits
- f. Bulk liquid storage (secondary containment)
- g. Fueling operations*
- h. Discharge of stormwater from secondary containment
- i. Vehicle/Equipment maintenance and/or repair
- j. Wash wastewater containment
- k. Salt and other granular de-icing material storage and handing*

Section F: Municipal Maintenance Yards

- l. Aggregate material, wood chips, and finished leaf compost storage*
- m. Cold patch asphalt storage
- n. Street sweeping and storm sewer clean out material storage*
- o. Construction and demolition waste, wood waste, and yard trimming storage*
- p. Scrap tires
- q. Inoperable vehicle or equipment
- r. Outdoor refuse containers and dumpsters

More on Fueling Operations

- i. Place drip pans under all hose and pipe connections and other leak-prone areas during bulk transfer of fuels
- ii. Block storm sewer inlets, or contain tank trucks used for bulk transfer, with temporary berms or temporary absorbent booms during the transfer process. If temporary berms or booms are being used instead of blocking the storm sewer inlets, all hose connection points associated with the transfer of fuel shall be within the temporarily bermed or boomed area during the loading/unloading of bulk fuels. A trained employee shall be present to supervise the bulk transfer of fuel
- iii. Clearly post, in a prominent area of the facility, instructions for safe operation of fueling equipment that include all the following:
“Topping off of vehicles, mobile fuel tanks, and storage tanks is strictly prohibited”; “Stay in view of fueling nozzle during dispensing”; and the contact information for the person(s) responsible for spill response;
- iv. Immediately repair or replace any equipment, tanks, pumps, piping, and fuel dispensing equipment found to be leaking or in disrepair.

More on Salt and other granular de-icing material storage and handling

- i. Preventing the exposure of stored salt and other granular de-icing material to rain, snow, or stormwater run-on. Stormwater runoff containing de-icing material from a material storage and handling area is not authorized for discharge under this permit
- ii. Preventing and/or minimizing spillage; iii. Minimizing tracking of materials from loading and unloading operations, which shall be conducted during dry weather, when possible
- iii. Minimizing loader travel distance between storage area and spreading vehicle
- iv. Sweeping (or clean using other dry cleaning methods), after loading and unloading, the areas surrounding the de-icing storage structure to eliminate the contact of de-icing materials with stormwater that were tracked away from storage areas. The permittee may reuse or properly discard materials collected during cleanup

More on Salt and other granular de-icing material storage and handing

vi. Restricting the temporary outdoor storage of salt and other granular de-icing materials. The temporary outdoor storage of salt and other granular de-icing materials is permitted only under the following conditions:

- 1) A permanent structure is under construction, repair, or replacement;
- 2) Stormwater run-on and de-icing material run-off is minimized;
- 3) Materials in temporary storage are tarped when not in use;
- 4) All the BMPs for de-icing materials in a permanent structure above are met; and
- 5) Temporary outdoor storage shall not exceed 30 days unless otherwise approved in writing by the Department.

More on Aggregate material, wood chips, and finished leaf compost storage

- i. Stored a minimum of 50 feet from surface water bodies, storm sewer inlets, and/or ditches or other stormwater conveyance channels
- ii. Stored in a manner as to minimize stormwater run-on and aggregate run-off via surface grading, dikes and/or berms (which may include sandbags, hay bales and curbing, among others) or three-sided storage bays. Where possible the open side of storage bays shall be situated on the upslope. The area in front of storage bays and adjacent to storage areas shall be swept clean after loading/unloading
- iii. Removed within six (6) months of placement into storage; and
- iv. Not Being Processed (i.e., chipping, grinding, screening, and/or size reducing). The discharge of stormwater from the processing of these materials is not authorized under this permit. Facilities conducting processing activities shall contact the Industrial Stormwater Permitting Unit at industrialstormwaterpermitting@dep.nj.gov for information regarding obtaining the applicable stormwater permit.

More on Street sweeping and storm sewer clean out material storage

- i. Stored in leak-proof containers or on an impervious surface and covered with a waterproof material (i.e., tarpaulin or 10-mil plastic sheeting) and is contained (e.g., contained by berms) to control leachate and stormwater run-on or run-through
- ii. Removed for disposal within six (6) months of placement into storage.

More on Construction and demolition waste, wood waste, and yard trimming storage

- i. Stored a minimum of 50 feet from surface water bodies, storm sewer inlets, and/or ditches or other stormwater conveyance channels
- ii. Stored in a manner as to minimize stormwater run-on and aggregate run-off via surface grading, dikes and/or berms (which may include sandbags, hay bales and curbing, among others) or three-sided storage bays. Where possible the open side of storage bays shall be situated on the upslope. The area in front of storage bays and adjacent to storage areas shall be swept clean after loading/unloading
- iii. Removed within six (6) months of placement into storage

More on Construction and demolition waste, wood waste, and yard trimming storage

- iv. Not Being Processed (i.e., composting, chipping, grinding, screening, and or size reducing). The discharge of stormwater from the processing of these materials is not authorized under this permit. Facilities conducting processing activities shall contact the Industrial Stormwater Permitting Unit at industrialstormwaterpermitting@dep.nj.gov for information regarding obtaining the applicable stormwater permit.

Section F: Training

- Stormwater Program Coordinator (SPC) Training (once per permit cycle)



Annual Employee Training

- i. SPPP
- ii. Construction Site Stormwater Runoff
- iii. Post-Construction Stormwater Management in New Development and Redevelopment
- iv. Community-wide Ordinances
- v. Community-wide Measures
- vi. Stormwater Facility Maintenance
- vii. Municipal Maintenance Yard Operations and other ancillary operations
- viii. MS4 Mapping
- ix. Outfall stream scouring detection and control
- x. Illicit Connection Elimination
- xi. Watershed Improvement Plan

Section F: Training

- Stormwater Management Design Review Training (once per permit cycle)
- Stormwater Management Rule Amendment Training (within one year after rule amendment)
- Municipal Board and Governing Body Member Training (once per term)

Section G: MS4 Mapping, and Scouring, and Illicit Discharge Detection Elimination

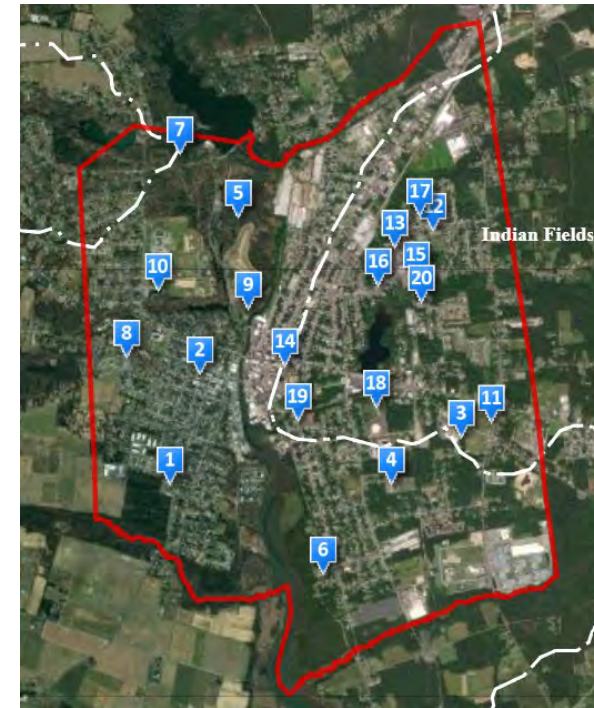
- MS4 Mapping including:
 - i. MS4 outfalls
 - ii. MS4 groundwater discharge points
 - iii. MS4 interconnections
 - iv. Storm drain inlets
 - v. MS4 manholes
 - vi. MS4 conveyance
 - vii. MS4 pump stations
 - viii. Stormwater facilities
 - ix. Property boundaries of maintenance yards
- Stream Scouring (inspect each outfall once every five years)

Section G: MS4 Mapping, and Scouring, and Illicit Discharge Detection Elimination

- Illicit Discharge Detection and Elimination (dry weather inspections once every five years)
 - i. Detect source within 30-days
 - ii. Eliminate within one year

Watershed Improvement Plan

- Designed to improve water quality problems
- Focused on reducing the MS4 contribution of pollutants to waterbodies with listed impairments and TMDLs
- Reducing or eliminating flooding with priority given based on human health and safety, environmental impacts, and frequency of occurrence
- Plan shall be developed with input from residents, businesses, neighboring towns, other dischargers



Three phases of watershed improvement plans

Phase 1 – Prepare and submit the Watershed Inventory Report; conduct outreach (*December 31, 2025*)

- Summarize/map required information, some is available from the Department's GIS database

Phase 2 – Prepare and submit the Watershed Assessment Report; conduct outreach (*December 31, 2026*)

- Assess potential projects with estimates of the reduction in pollutant loading & funding need

Phase 3 – Prepare and submit the Watershed Improvement Plan Report; conduct outreach (*December 1, 2027*)

- Summarize proposed projects with improvement expected, comments received, costs, coordination with other regulatory programs, and implementation schedule

QUESTIONS?

Rutgers Cooperative Extension Water Resources Program

Chris Obropta

Email: obropta@envsci.rutgers.edu

www.water.rutgers.edu