

MS₄ Tier A Permit Renewal and Green Infrastructure Requirements



Green
Infrastructure
Amendments
to the
Stormwater
Management
rules



Green Infrastructure Definition N.J.A.C. 7:8-1.2

Means 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; or
3. Storing stormwater runoff for reuse.

Green Infrastructure Standard N.J.A.C. 7:8-5.3

GI BMPs must be used to satisfy recharge, quantity, and quality

- Small-scale (limited drainage area) for recharge and quality

3 Tables identifying the performance of each BMP in meeting the 3 standards

- Table 5-1: Recharge, Quality, and Quantity Control
- Table 5-2: Quantity Control
- Table 5-3: Recharge, Quality, and Quantity Control ONLY with Waiver or Variance

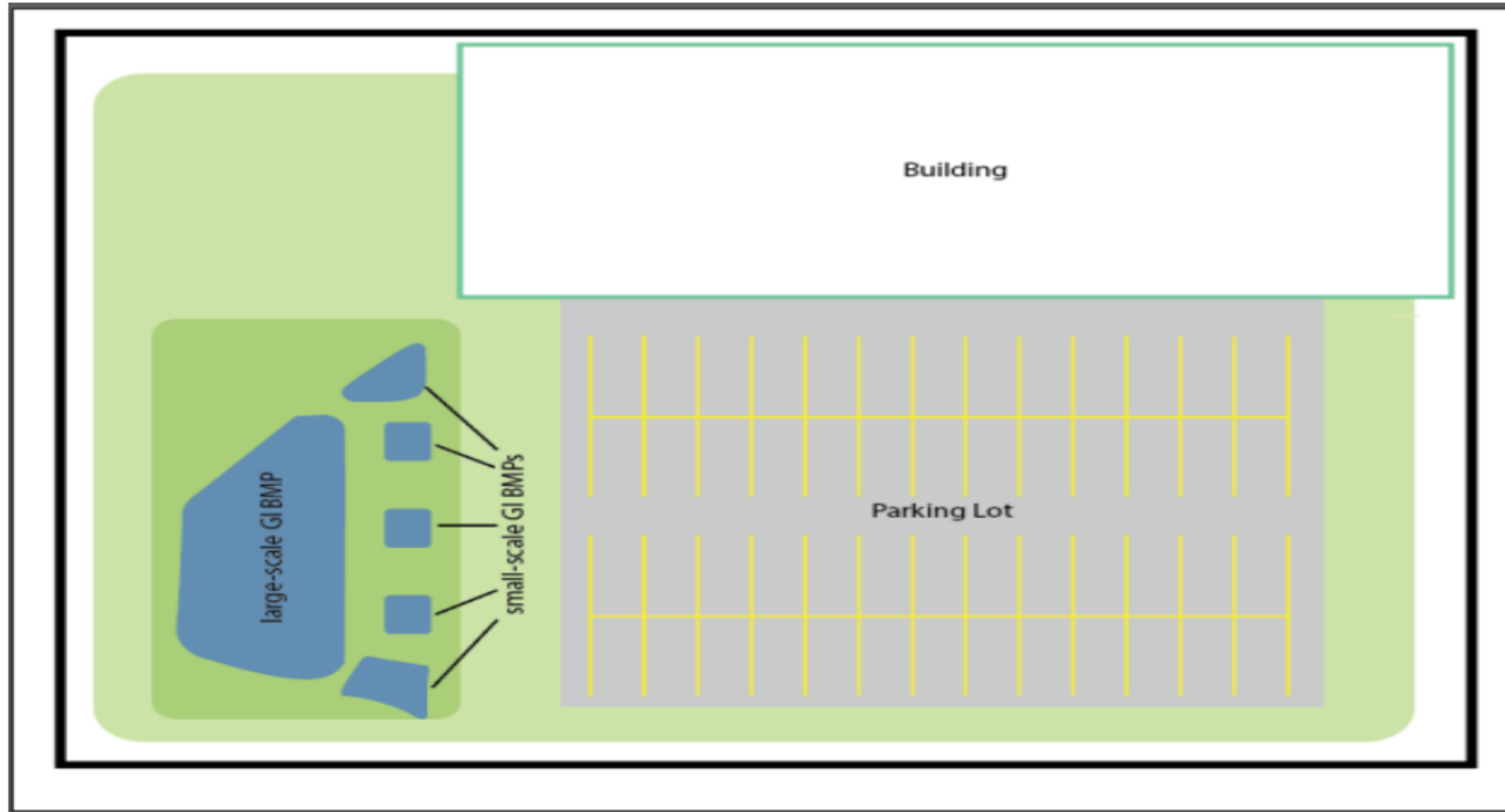
Maintain existing ability to propose an alternative stormwater design. Alternative design must meet GI definition and must meet drainage area limitation if similar to BMP with limit.

How to evaluate compliance?

1. Is the stormwater managed close to its source?
2. Are the BMPs distributed throughout the site?
3. Are the drainage area limitations met?

If the answer to any of the questions above is no, then the design does not comply with the requirements.

What doesn't meet the requirements?



Does it meet the 3 questions?

1. Is the stormwater managed close to its source?

Mostly no. Since the BMPs are concentrated in one corner, runoff from the other side of the property is not managed close to its source.

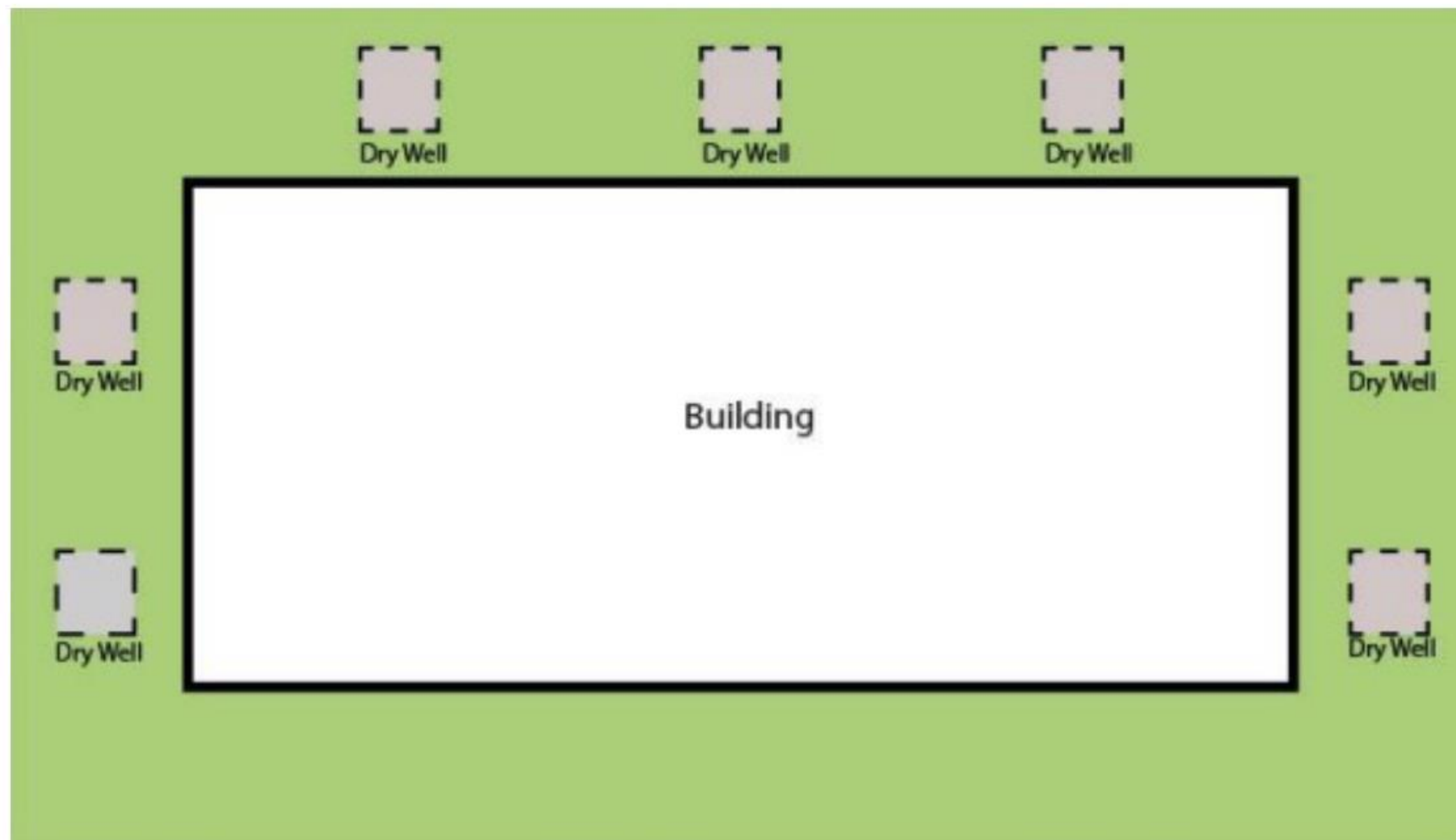
2. Are the BMPs distributed throughout the site?

No, they are concentrated in one part of the site.

3. Are the drainage area limitations met?

They may be met, but since the answer was no to the other 2 questions, this design does not meet the requirements.

Can BMPs be near one another?



Does it meet the 3 questions?

1. Is the stormwater managed close to its source?

Yes. The dry wells are located adjacent to the building, which is the source of the stormwater.

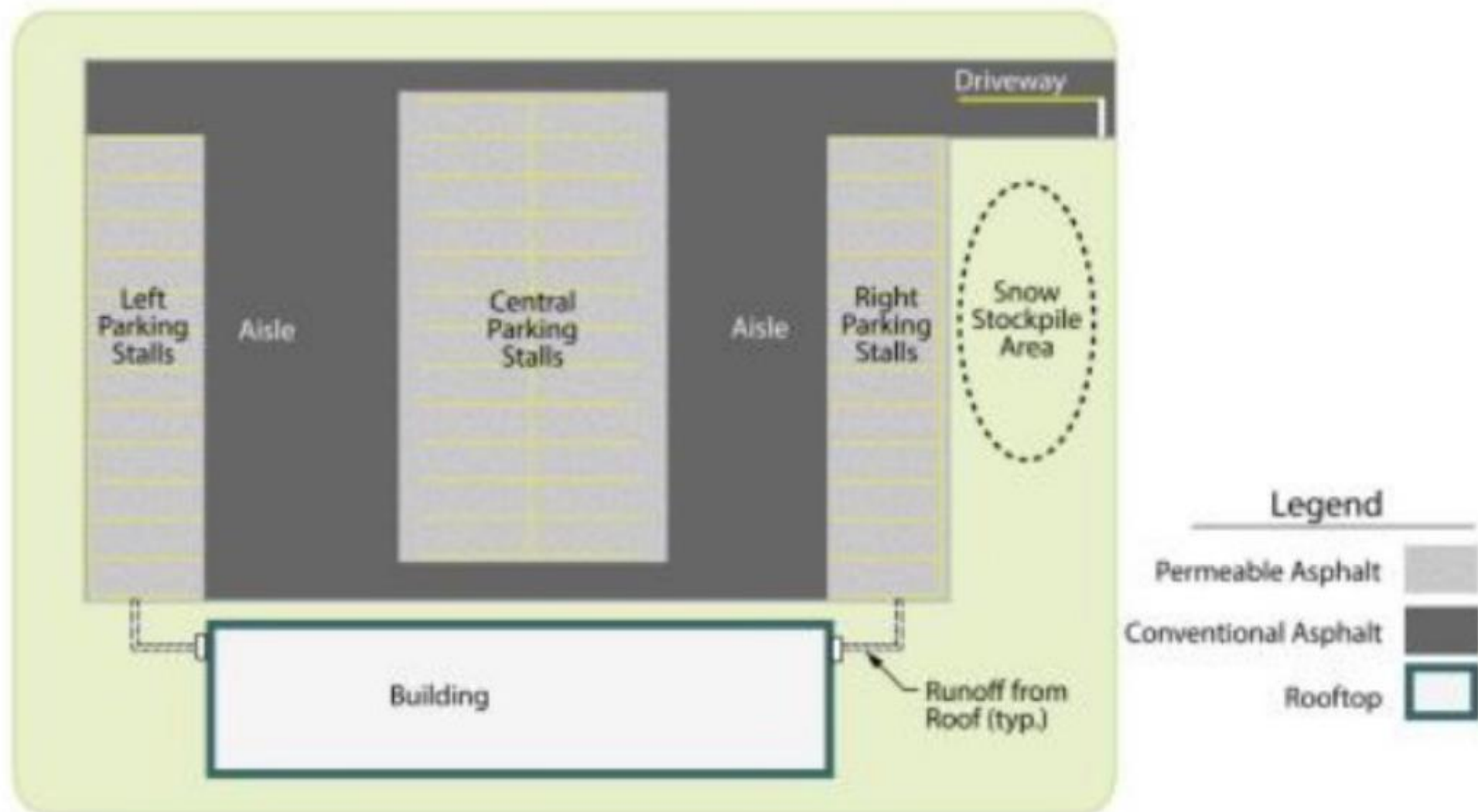
2. Are the BMPs distributed throughout the site?

Yes. The BMPs are not concentrated in any one location and are distributed around 3 sides of the building.

3. Are the drainage area limitations met?

Yes, assuming the building is less than 7 acres in size and no more than 1 acre of runoff is directed to any individual drywell.

What DOES meet the requirements?



NOTE:

→ = Direction of Runoff

Not to Scale

Does it meet the 3 questions?

1. Is the stormwater managed close to its source?

Yes. The pervious paving systems are located adjacent to the building and parking areas, which are the sources.

2. Are the BMPs distributed throughout the site?

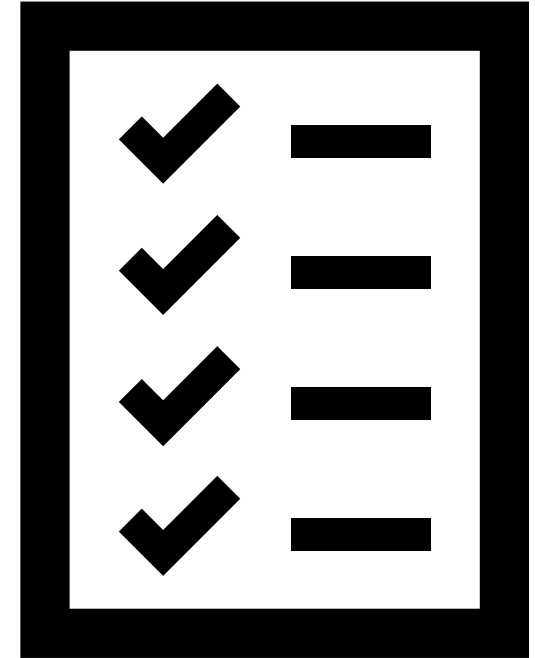
Yes. The BMPs are not concentrated in any one location and are distributed throughout the site.

3. Are the drainage area limitations met?

Yes. Each pervious paving system does not exceed the 3:1 ratio of additional inflow to pervious paving area.

Overview of The Tier A Renewal Permit

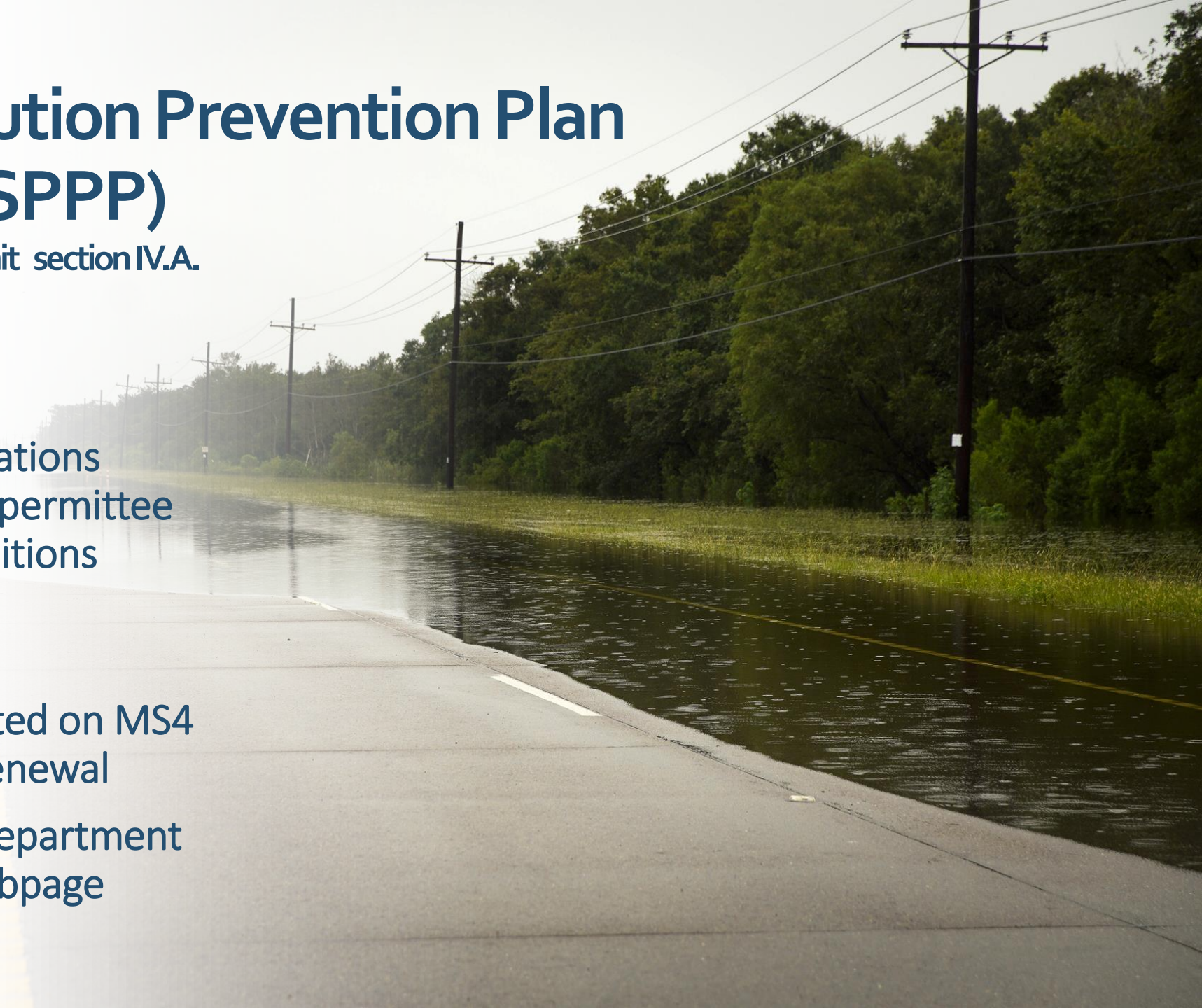
(2023 Renewal)



Stormwater Pollution Prevention Plan (SPPP)

Permit section IV.A.

- ❖ Essentially a stormwater operations handbook to reflect what the permittee does to meet the permit conditions
 - ❖ Must be kept current
 - ❖ Include town specifics
- ❖ Fillable template will be updated on MS4 webpage to reflect the final renewal
- ❖ Submit electronically to the Department and post on dedicated SW webpage





Municipal Stormwater Webpage

Permit section IV.B.2.

- ❖ Dedicated SW webpage for materials required to be posted
- ❖ HTML template is available from the Department
- ❖ Materials required to be posted:
 - ❖ Stormwater Pollution Prevention Plan
 - ❖ Municipal Stormwater Management Plan
 - ❖ Stormwater Control Ordinance
 - ❖ Community Wide Ordinances
 - ❖ MS4 Outfall Map
 - ❖ MS4 Infrastructure Map
 - ❖ Watershed Improvement Plan

Post Construction Stormwater Management in New Development and Redevelopment

Permit section IV.E. and IV.F.8.

- ❖ SW design reviewers must attend FREE NJDEP training every 5 years
- ❖ Check www.njstormwater.org/training.htm to verify that your SWM design reviewer(s) has attended training within the last 5 years
 - If not, send email to stormwatermanager@dep.nj.gov for information about upcoming courses
- ❖ The Department will email you if/when there is training for rule amendments
- ❖ The same person cannot design AND approve their own SWM designs

Community Wide Ordinances, etc

Permit section IV.F.1.

- ❖ Pet Waste
- ❖ Wildlife Feeding
- ❖ Litter Control
- ❖ Improper Disposal of Waste
- ❖ Yard Waste
- ❖ Private Storm Drain Inlet Retrofitting
- ❖ Prohibition of Illicit Connections
- ❖ Stormwater Control Ordinance
- ❖ Privately-owned Salt Storage
- ❖ Tree Removal/Replacement



Picture taken in August 2021



Street Sweeping

Permit section IV.F.2.a.i. and ii.

- ❖ Sweep paved asphalt and concrete roads (not required for dirt, gravel, or tar and chip roads)
 - ❖ We will clarify this in final renewal permit
- ❖ Triannual Sweeping – Every 4 months, sweep segments of municipal roads that have storm drain inlets that discharge to surface water
- ❖ Annual Sweeping – Every year, sweep segments of paved municipal roads that do NOT have storm drain inlets that discharge to surface water

Storm Drain Inlets

Permit section IV.F.2.a.iii., iv., and v.



- ❖ Label inlets that do not have permanent wording cast into the structure
- ❖ Retrofit ALL municipal storm drain inlets to prevent solids and floatables from entering the MS4
 - Apply a bolt-on plate to curb openings or replace old storm drain inlets with DOT bicycle safe grates
- ❖ Installation of new storm drains that discharge to surface water must include a catch basin or other BMP designed for solids collection

Herbicide Application Management

Permit section IV.F.2.a.vi.

- ❖ Prohibit unnecessary spraying of herbicides (e.g., medians, inlets)
- ❖ Avoid de-vegetation that may result in erosion caused by stormwater



Excess Deicing Material Management

Permit section IV.f.2.a.vii.

- ❖ Remove piles of excess salt and deicing materials that have been deposited during spreading operations on all municipal roads and parking areas
- ❖ Remove within 72 hours after the end of storm events, conditions permitting



Roadside Vegetative Waste Management

Permit section IV.F.2.a.viii.

- ❖ Proper pickup, handling, storage, and disposal of wood waste and yard trimmings (grass clippings) generated during municipal work activities
- ❖ Goal is to keep materials out of the MS4





Roadside Erosion Control Program

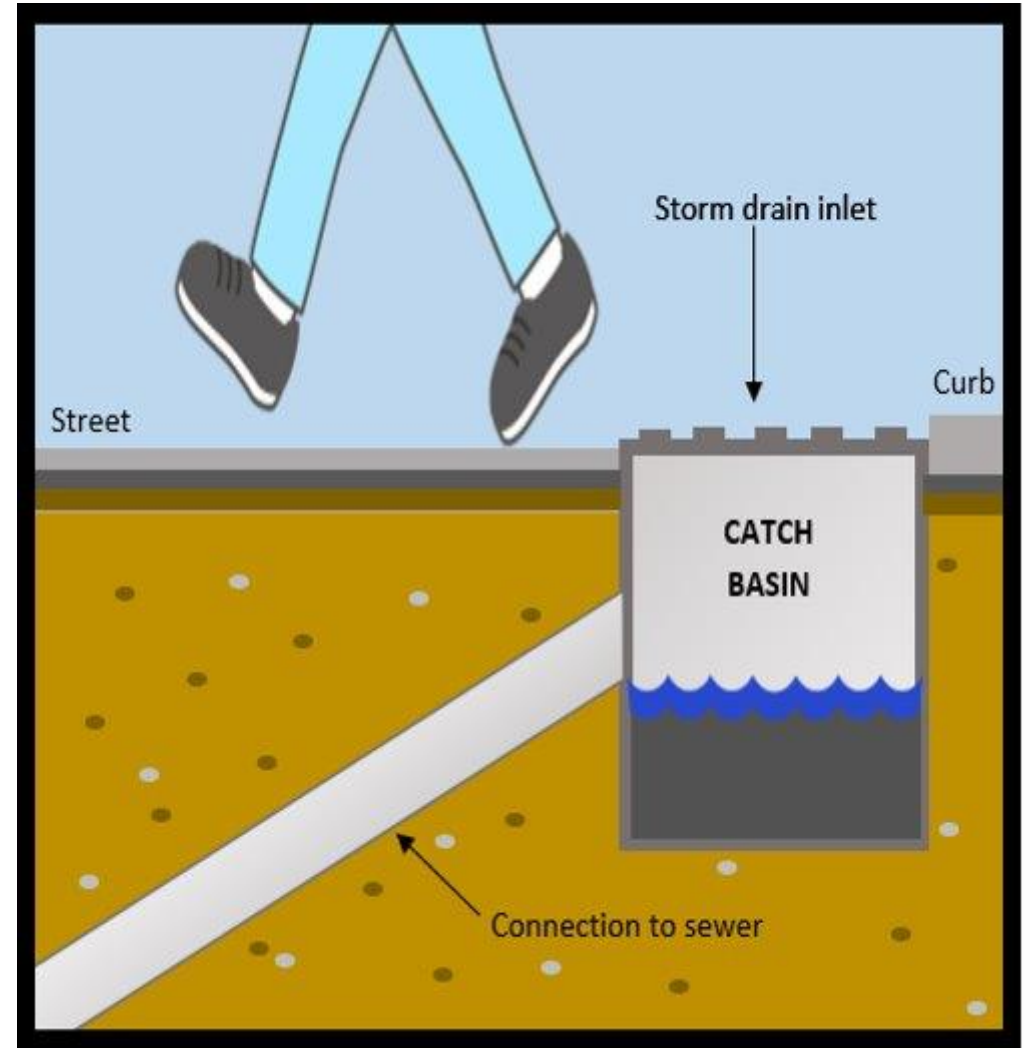
Permit section IV.F.2.a.ix.

- ❖ Inspect municipal roads for stability
 - ❖ Check for evidence of stormwater causing erosion of shoulders, embankments, ditches, and soils along roads
 - ❖ may cause sedimentation of receiving waters
 - ❖ Can be done in tandem with other municipal inspections
- ❖ Repair problems within 90 days of discovery

Storm Drain Inlets & Catch Basins

Permit section IV.F.3.a.i. -iv.

- Storm Drain Inlets
 - Inspect ALL every year
- Catch Basins
 - Up to 1,000 municipal catch basins, inspect ALL every year
 - 1,000+ catch basins, inspect 1,000 or 20% of the total (whichever is more) every year on rotation





MS₄ Conveyance Inspection & Cleaning

Permit section IV.F.3.a.v.

- ❖ Identify all stormwater conveyance features, e.g., ditches and pipes
- ❖ Inspect, clean, and maintain as needed

Stormwater Infrastructure Inspection

Permit section IV.F.3.a.vi - x.

- ❖ Identify any MS4 infrastructure that does not already have a specific permit condition, e.g., stormwater management basins
- ❖ Inspect at least 4x annually and after rainstorms exceeding 1", clean and maintain as needed



Stormwater Facilities Not Owned or Operated by the Municipality

Permit section IV.F.4.

- ❖ Ensure that SWF not owned or operated by the permittee are inspected/maintained by the owner
- ❖ Owners must perform annual inspections
- ❖ Maintenance = structural repairs and removal of solid and floatable materials: trash, litter, excess leaves, branches, excess growth, etc.



BMPs at Maintenance Yards & Ancillary Operations

Permit section IV.F.5.

- ❖ Monthly site inspections
- ❖ Outdoor inventory of potential pollutants
- ❖ Container labels
- ❖ Spill kits
- ❖ 2° containment around bulk liquid containers
- ❖ SW discharge from 2° containment
- ❖ Fueling operations
- ❖ Vehicle/equipment maintenance/repair
- ❖ Wash wastewater containment
- ❖ Salt and Other Solid Deicers
- ❖ Aggregate Materials, Wood Chips, and Finished Leaf Compost (no processing)
- ❖ Cold Patch Asphalt
- ❖ Street Sweeping & Storm Sewer Clean-out Materials*
- ❖ Construction & Demolition Waste, Wood Waste, and Yard Trimmings
- ❖ Scrap Tires
- ❖ Inoperable Vehicles/Equipment
- ❖ Outdoor Refuse Containers & Dumpsters



Employee Training

Permit section IV.F.6. through 9.

- ❖ Stormwater Program Coordinator Training
 - ❖ Attend NJDEP training every 5 years (each permit cycle)
- ❖ Municipal Employees
 - ❖ Annual training on SPPP, BMPs, ordinances, etc.
- ❖ Municipal Board and Governing Body Members
 - ❖ Watch one of six stormwater management training videos each term
- ❖ Stormwater Management Design Reviewers
 - ❖ Attend NJDEP training every 5 years
 - ❖ Attend NJDEP training on SWM rule amendment training as directed

MS4 Mapping

Permit section IV.G.1.

- ❖ Create a map of all MS4 infrastructure
- ❖ Submit to NJDEP electronically as a georeferenced shapefile, geodatabase, or AutoCAD file with non-applicable data stripped out
 - If DEP Mapping Application is used, data submittal is automatic
 - https://www.nj.gov/dep/dwq/msrp_map_aid.htm
- ❖ Post on dedicated stormwater webpage





MS₄ Outfall Inspection:

Stream Scouring

Permit section IV.G.2.

- ❖ Inspect all MS₄ outfalls at least once every 5 years
 - ❖ Up to 100 municipal outfalls, inspect ALL every year
 - ❖ 100+ municipal outfalls, inspect 100 or 20% of the total (whichever is more) every year on rotation
- ❖ Inspect new/newly identified outfalls w/in 30 days
- ❖ Investigate complaints and reports of scouring within 30 days and remediate within 12 months

MS4 Outfall Inspection:

Illicit Discharge Detection and Elimination

Permit section IV.G.2.

- ❖ Inspect MS4 outfalls at least once every 5 years
 - ❖ Up to 100 municipal outfalls, inspect ALL every year
 - ❖ 100+ municipal outfalls, inspect 100 or 20% of the total (whichever is more) every year on rotation
- ❖ Inspect new or newly identified outfalls within 30 days
- ❖ Investigate dry weather flows within 30 days
- ❖ Remediate within 12 months OR request an extension from the Department by month 11





Watershed Improvement Plan

Permit section IV.H.

- ❖ Improve water quality by reducing MS4 contribution of pollutants to waterbodies with listed impairments and TMDLs
- ❖ Reduce/eliminate flooding with priority given based on human health and safety, environmental impacts, and frequency of occurrence
- ❖ Develop plan with input from residents, businesses, neighboring towns, other dischargers

Watershed Improvement Plan

Permit section IV.H.

- ❖ Phase 1 – Prepare and submit the Watershed Inventory Report; conduct outreach
 - ❖ Summarize/map required information, some is available from the Department's GIS database
- ❖ Phase 2 – Prepare and submit the Watershed Assessment Report; conduct outreach
 - ❖ Assess potential projects with estimates of the reduction in pollutant loading & funding need
 - ❖ Solicit public comments by posting the Watershed Assessment Report with a 60-day public comment period
- ❖ Phase 3 – Prepare and submit the Watershed Improvement Plan Report; conduct outreach
 - ❖ Summarize proposed projects with improvement expected, comments received, costs, coordination with other regulatory programs, and implementation schedule





❖ Recordkeeping (section IV.J.)

- ❖ Retain copies of related records for at least 5 years & make available upon request

❖ Annual Report (section IV.K.)

- ❖ Submit online by May 1st every year
- ❖ Attach Supplemental Questionnaire
- ❖ Attach current Stormwater Pollution Prevention Plan
- ❖ Attach Illicit Discharge Detection and Elimination Reports (if applicable)

❖ Attachment A –

- ❖ listing of activities & points for Public Education & Outreach

❖ Attachment B –

- ❖ design standards for Storm Drain Inlets

Thank You!

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