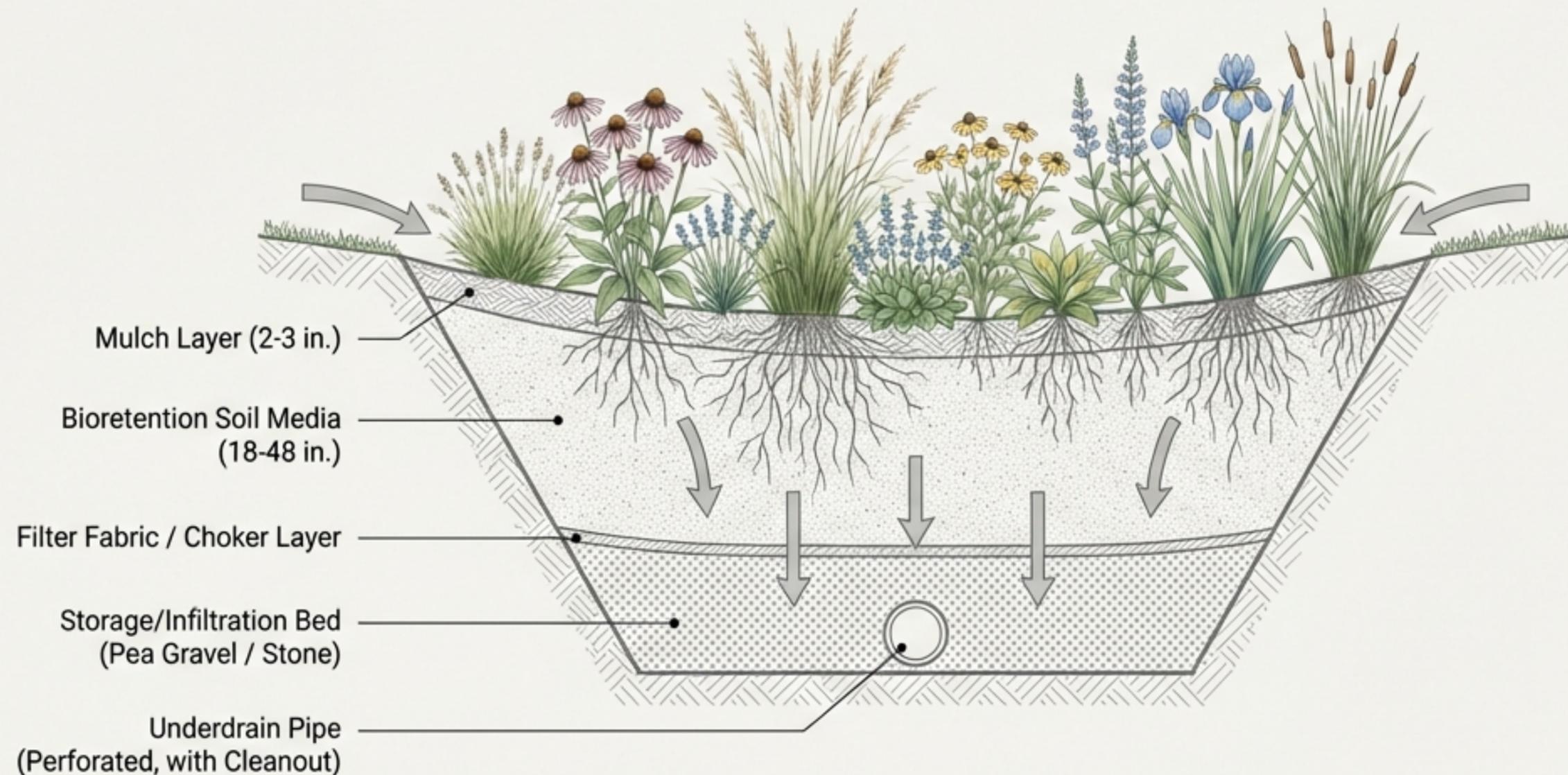


N.J.A.C. 7:8 Stormwater Management Rules

Integrating Ecological Design with Regulatory Compliance



Authority: N.J.S.A. 12:5-3, 13:1D-1 et seq.

Department: New Jersey Department of Environmental Protection (NJDEP)

Date Last Amended: January 20, 2026

Is this a Major Development?

Disturbance

1+ Acres of land
(Since Feb 2, 2004)

Regulated Impervious Surface

0.25+ Acres
(New or Collected)
(Since Feb 2, 2004)

Regulated Motor Vehicle Surface

0.25+ Acres
(Pervious or Impervious)
(Since Mar 2, 2021)

Reconstruction

0.25+ Acres of
Motor Vehicle or
Impervious Surface
(Since Jan 20, 2026)

Yes

N.J.A.C. 7:8 Rules Apply

Ecological Precision DEFINITIONS

Regulated Motor Vehicle Surface: Any surface intended for use by motor vehicles or aircraft directly exposed to precipitation.

Regulated Impervious Surface: Net increase in impervious surface OR total area collected by a new conveyance system.

The Nine Goals of Stormwater Management Planning

Subchapter 2.2



Flood Reduction:
Protect life & property.



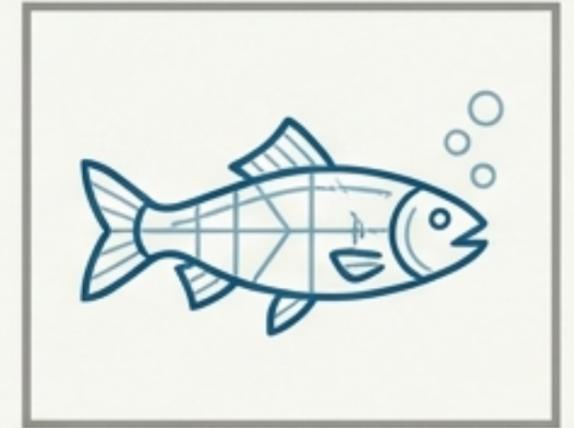
Impact Minimization:
Limit runoff increase.



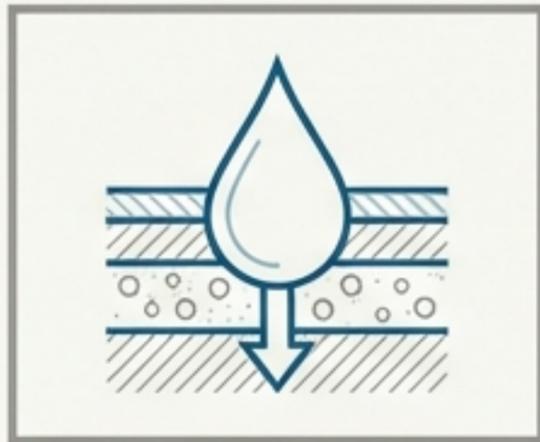
Erosion Control:
Reduce soil loss.



Pollution Prevention:
Stop nonpoint sources.



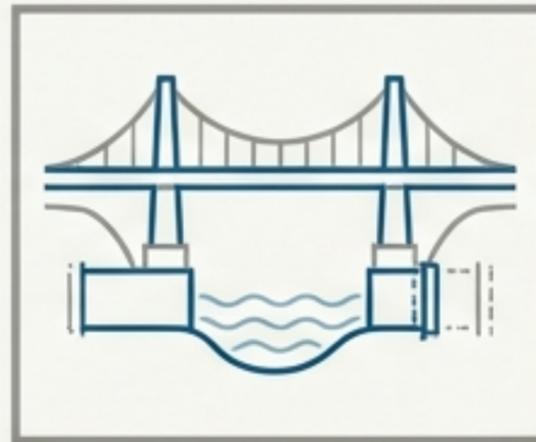
Biological Integrity:
Maintain stream function.



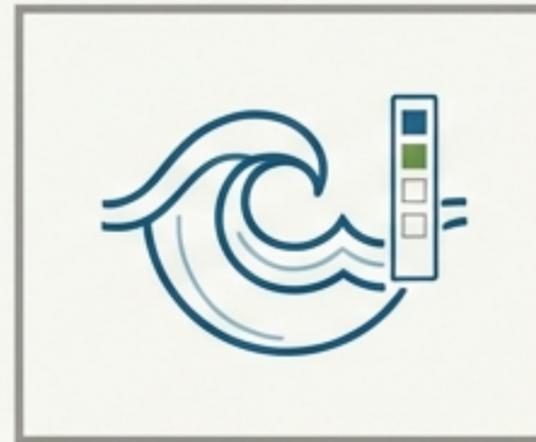
Groundwater:
Maintain recharge.



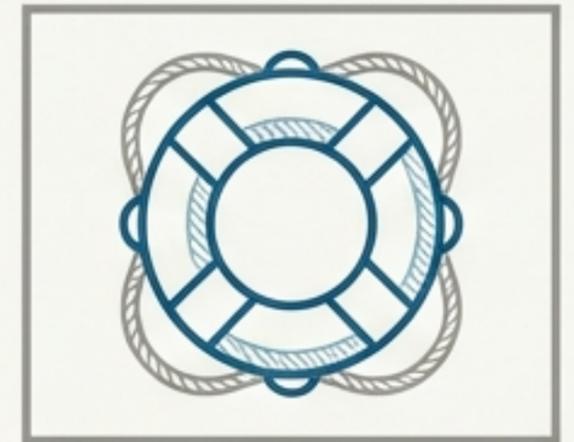
Pollution Prevention:
Stop nonpoint sources.



Infrastructure Assurance:
Ensure adequacy.

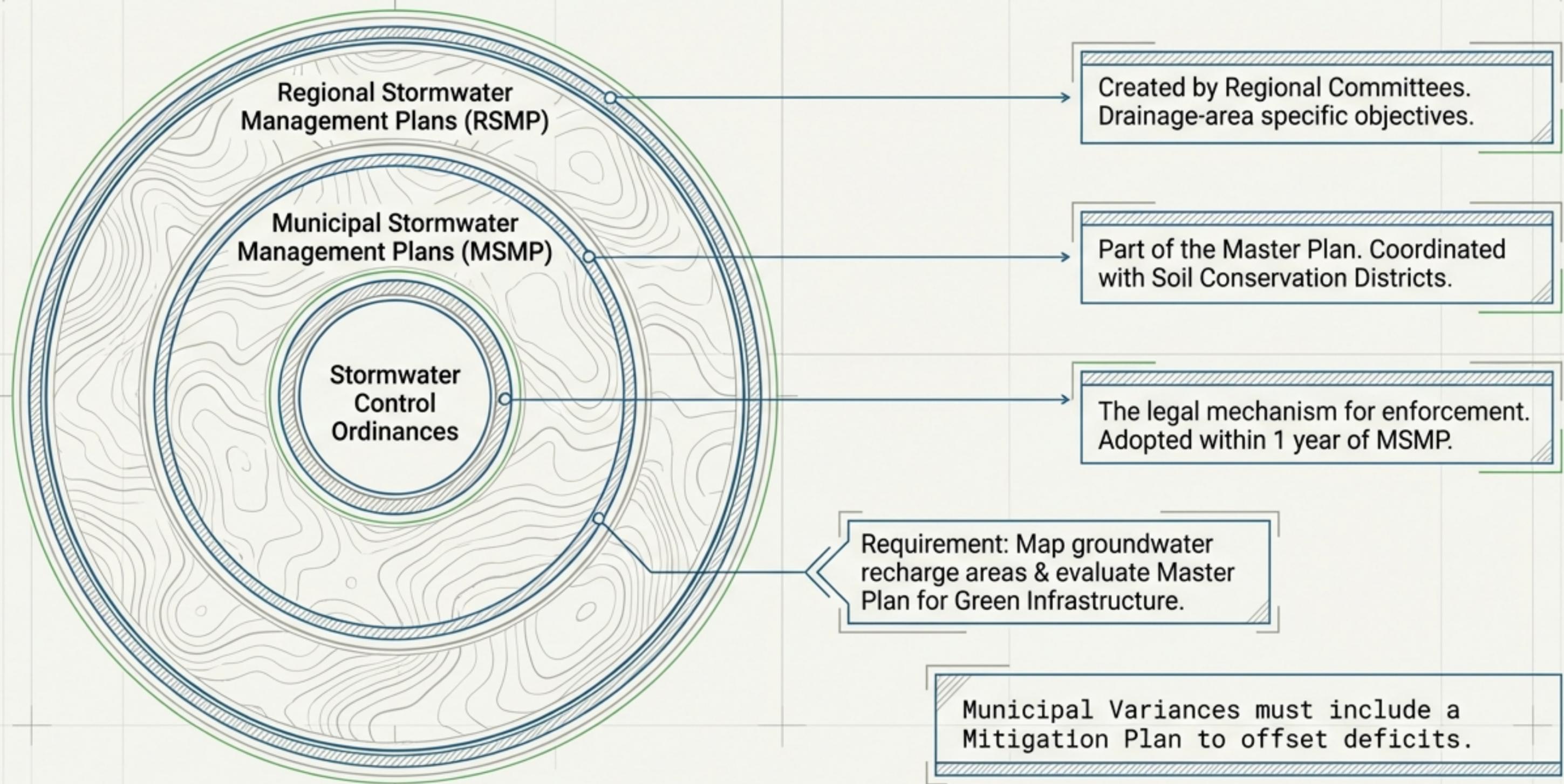


Water Quality:
Restore chemical/biological
integrity.



Public Safety:
Safe basin design.

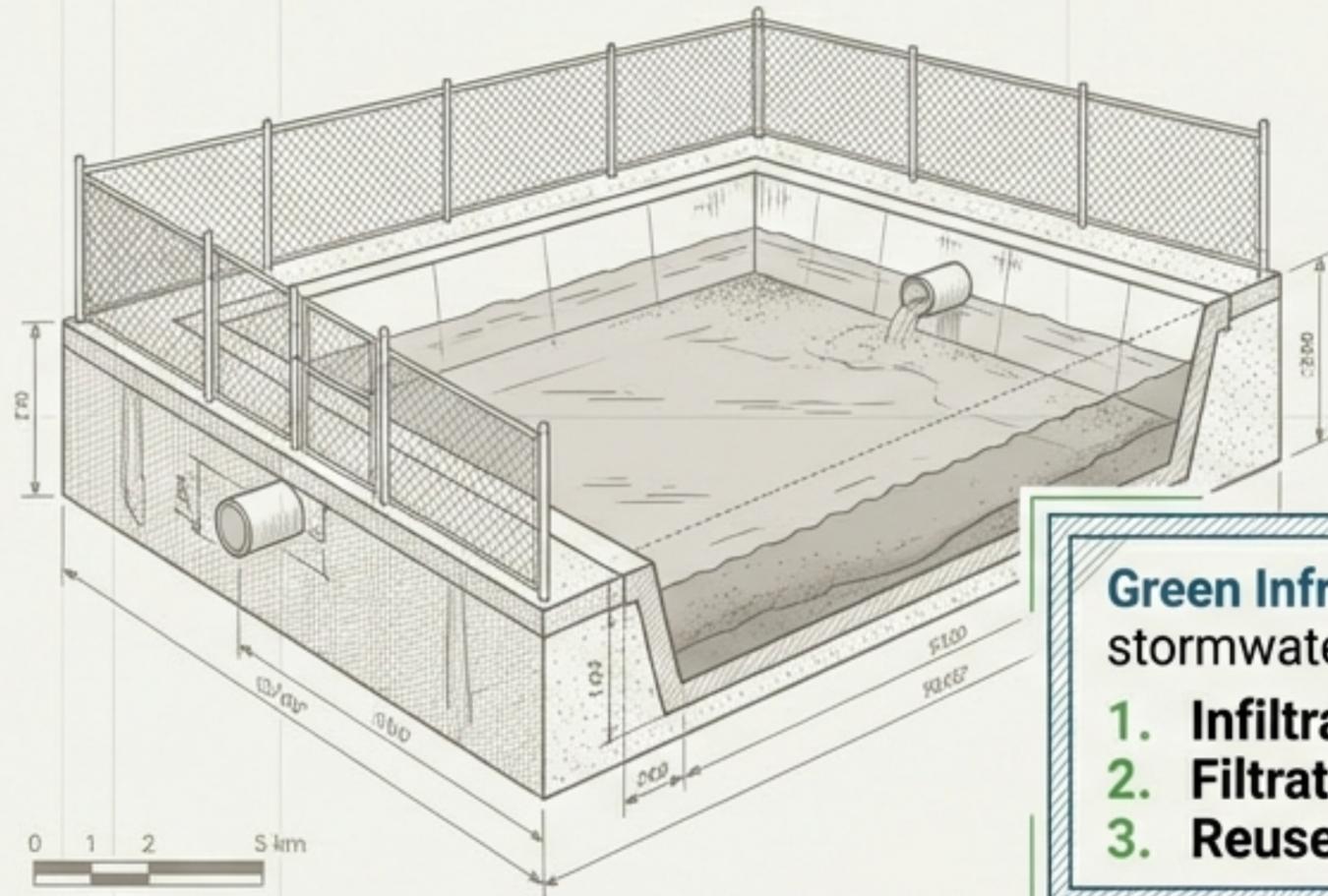
The Planning Ecosystem



The Core Design Shift: Green Infrastructure (GI)

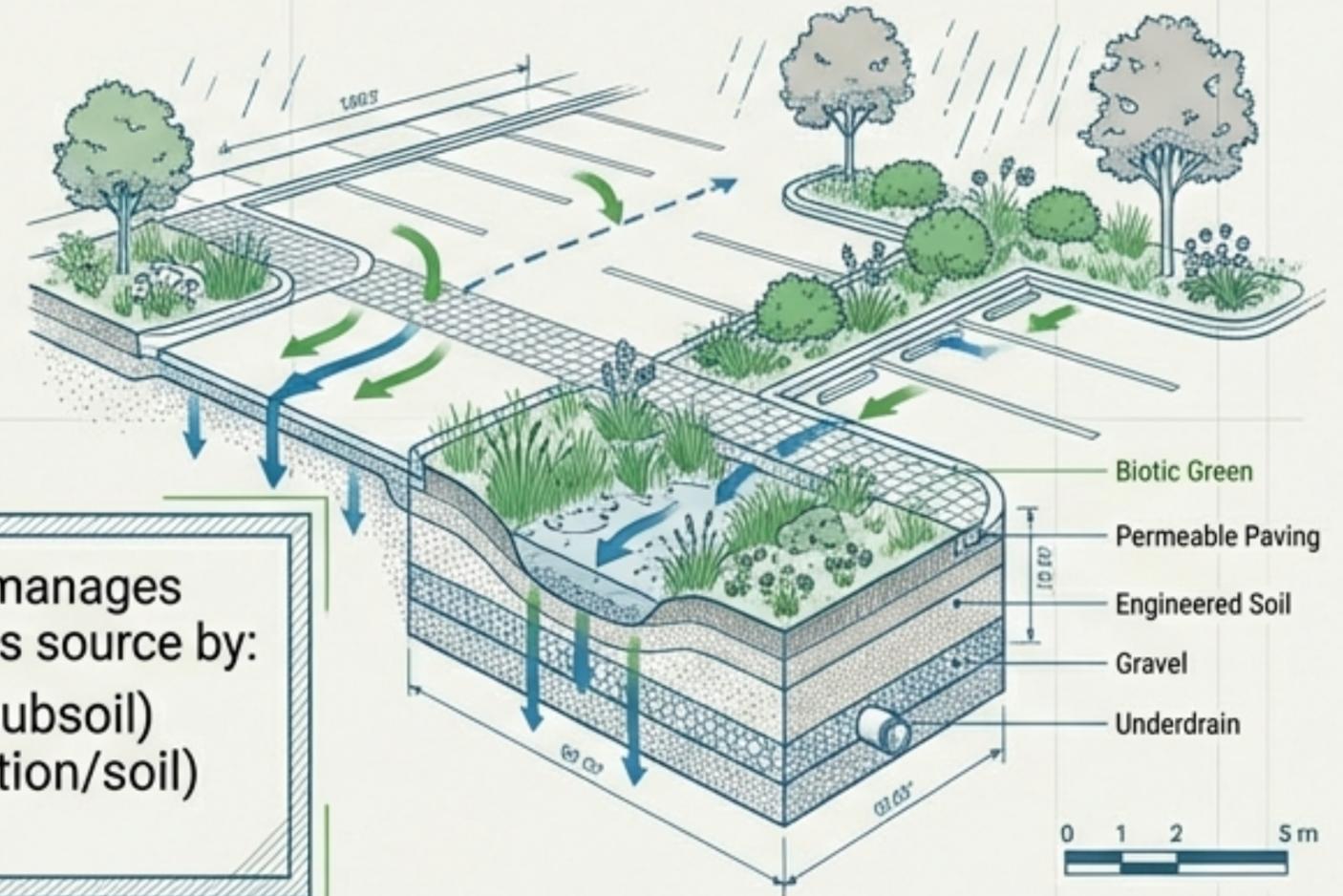
From Detention to Retention

The Old Standard



End-of-Pipe Management

The Current Standard



Manage at Source

Green Infrastructure manages stormwater close to its source by:

1. **Infiltration** (into subsoil)
2. **Filtration** (vegetation/soil)
3. **Reuse** (cisterns)

The Contributory Rule: Use small-scale BMPs. E.g., Dry Wells capped at 1 acre drainage; Small-scale Bioretention capped at 2.5 acres.

Selecting the Right BMP: The Regulatory Tables

Organized by Green Infrastructure and Waiver Requirements

Biotic Green

Table 5-1: Green Infrastructure Recharge, Quality, & Quantity

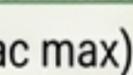
Cisterns 

Dry Wells (1 ac max) 

Grass Swales 

Green Roofs 

Pervious Paving 

Small-Scale Bioretention (2.5 ac max) 

Small-Scale Infiltration Basins 

Reservoir Blue

Table 5-2: GI for Quantity Only Quantity Control (Recharge/Quality requires waiver)

→ Bioretention Systems 

→ Infiltration Basins 

→ Sand Filters 

→ Standard Constructed Wetlands 

→ Wet Ponds 

Sediment Grey

Table 5-3: The Waiver List Only permitted with Variance/Waiver

Blue Roofs 

Extended Detention Basins 

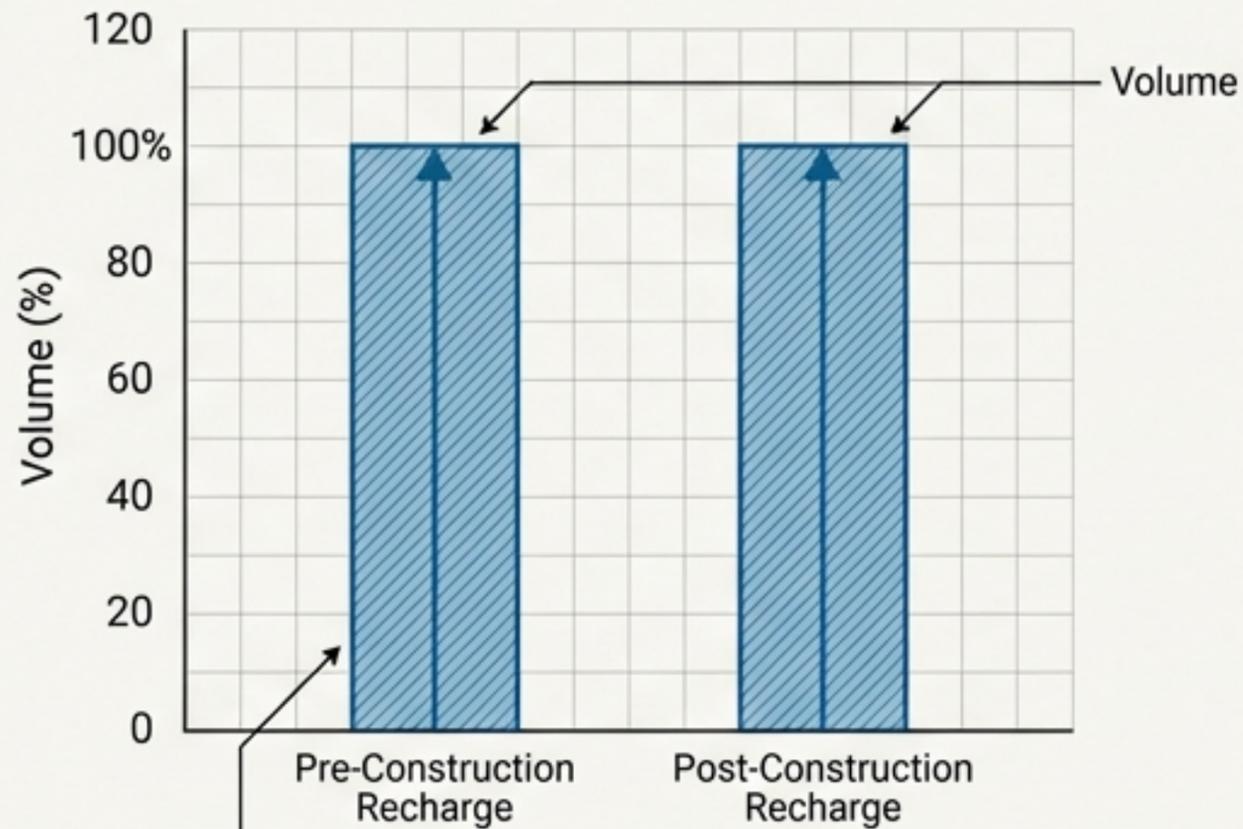
Subsurface Gravel Wetlands 

Manufactured Treatment Devices (MTDs) must be verified by NJ CAT and certified by the Department.

Performance Standard 1: Groundwater Recharge

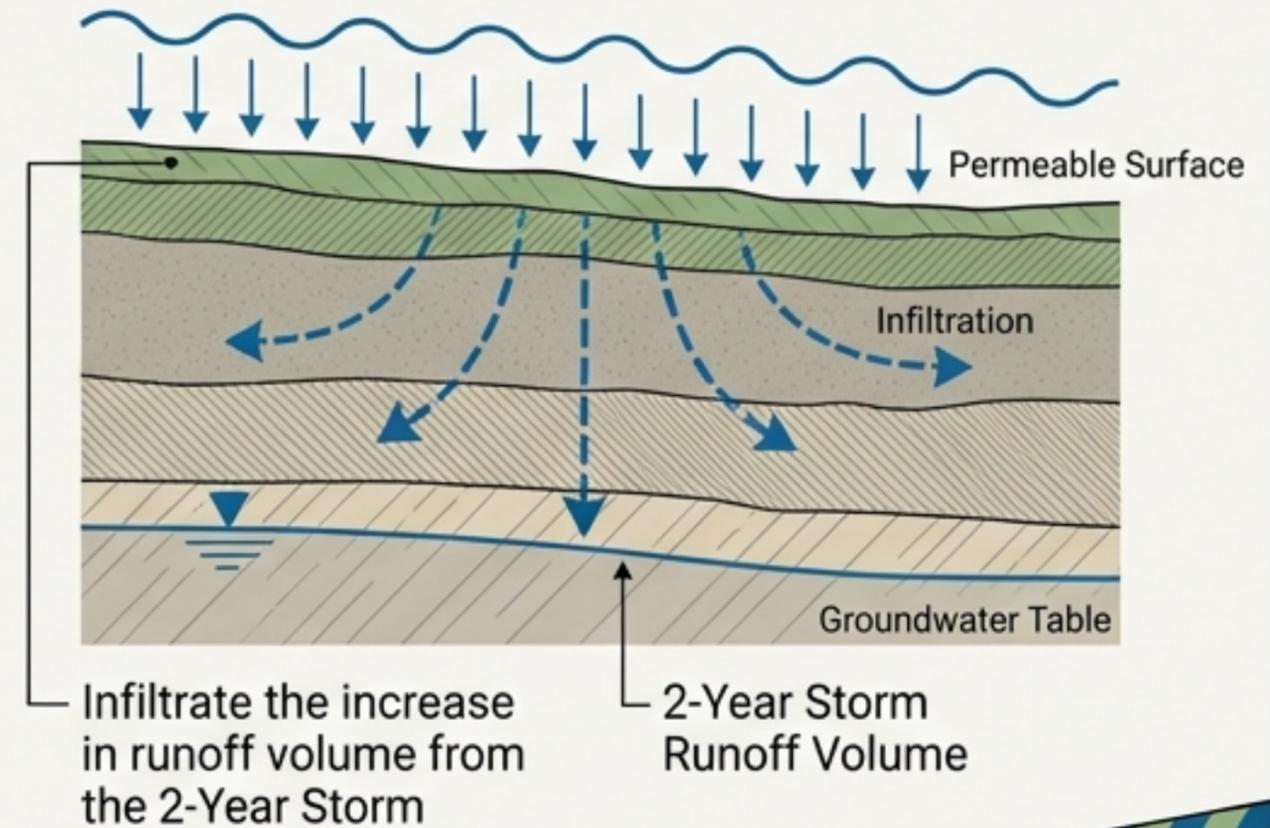
Mandate: Maintain 100% of average annual pre-construction recharge volume.

Method A



Hydrologic analysis demonstrating 100% maintenance of average annual volume.

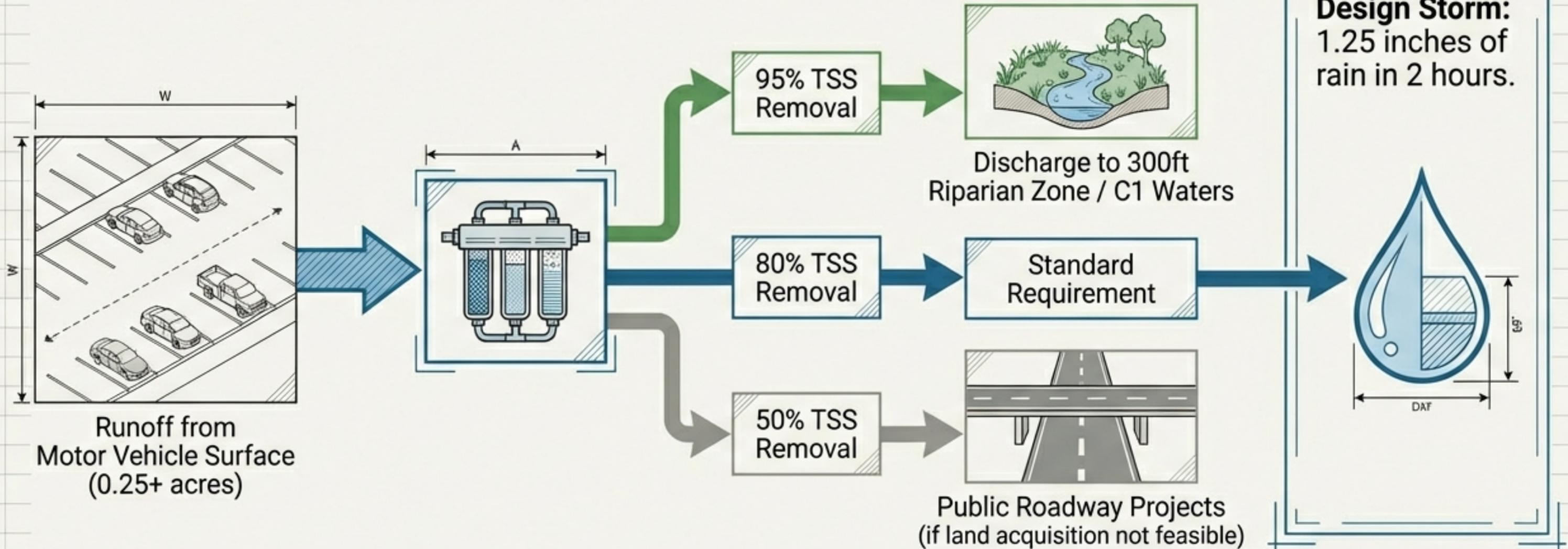
Method B



DO NOT RECHARGE: High pollutant loading areas (Gas Stations, Industrial Storage) or Urban Redevelopment Areas

Performance Standard 2: Stormwater Runoff Quality

Target: Total Suspended Solids (TSS) Removal.



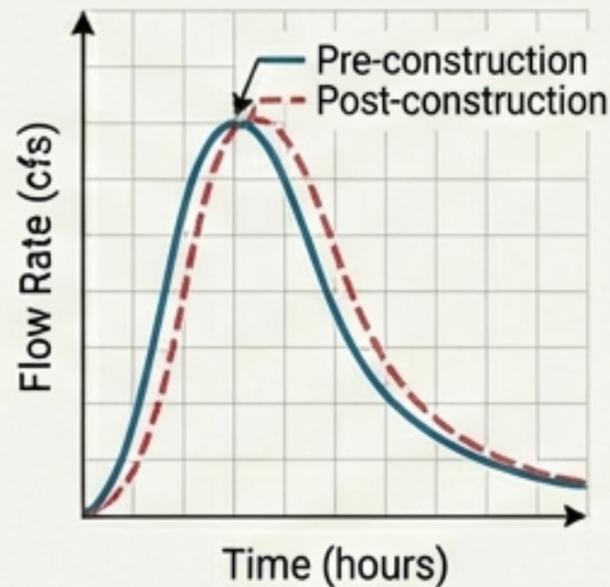
Calculation for BMPs in Series: $R = A + B - (A \times B) / 100$

Performance Standard 3: Stormwater Runoff Quantity

Controlling Peak Flow & Flood Damage

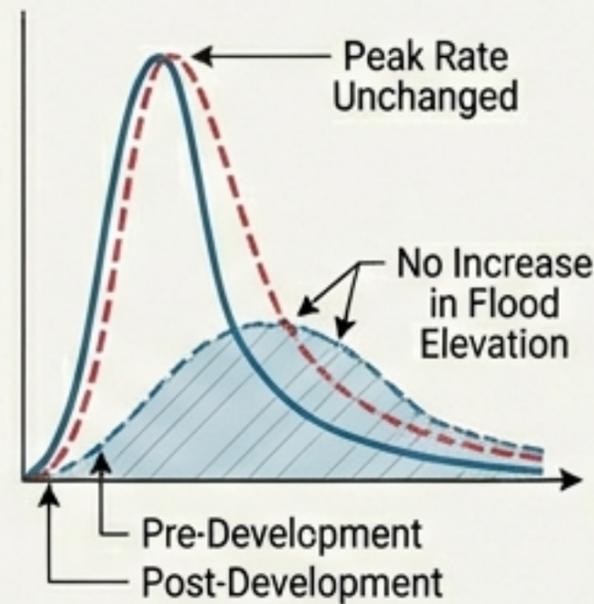
Hydrograph Match

Post-construction never exceeds Pre-construction.



No Peak Increase

No increase in peak rates + No increase in flood damage.



Peak Reduction (Standard)

Reduce Post-Construction Peak Rates to:



50%
for 2-Year Storm



75%
for 10-Year Storm



80%
for 100-Year Storm

Tidal Exception:

No analysis required if discharging directly to ocean/bay/inlet downstream of first control structure.



Calculation Methodologies & Climate Adjustment



Methodology

USDA NRCS (TR-55).
Pre-construction land use
presumed "Wooded /
Good Condition".



Precipitation Source

NOAA Atlas 14 Point
Precipitation Frequency
Estimates.

Climate Change Factors (Table 5-6)

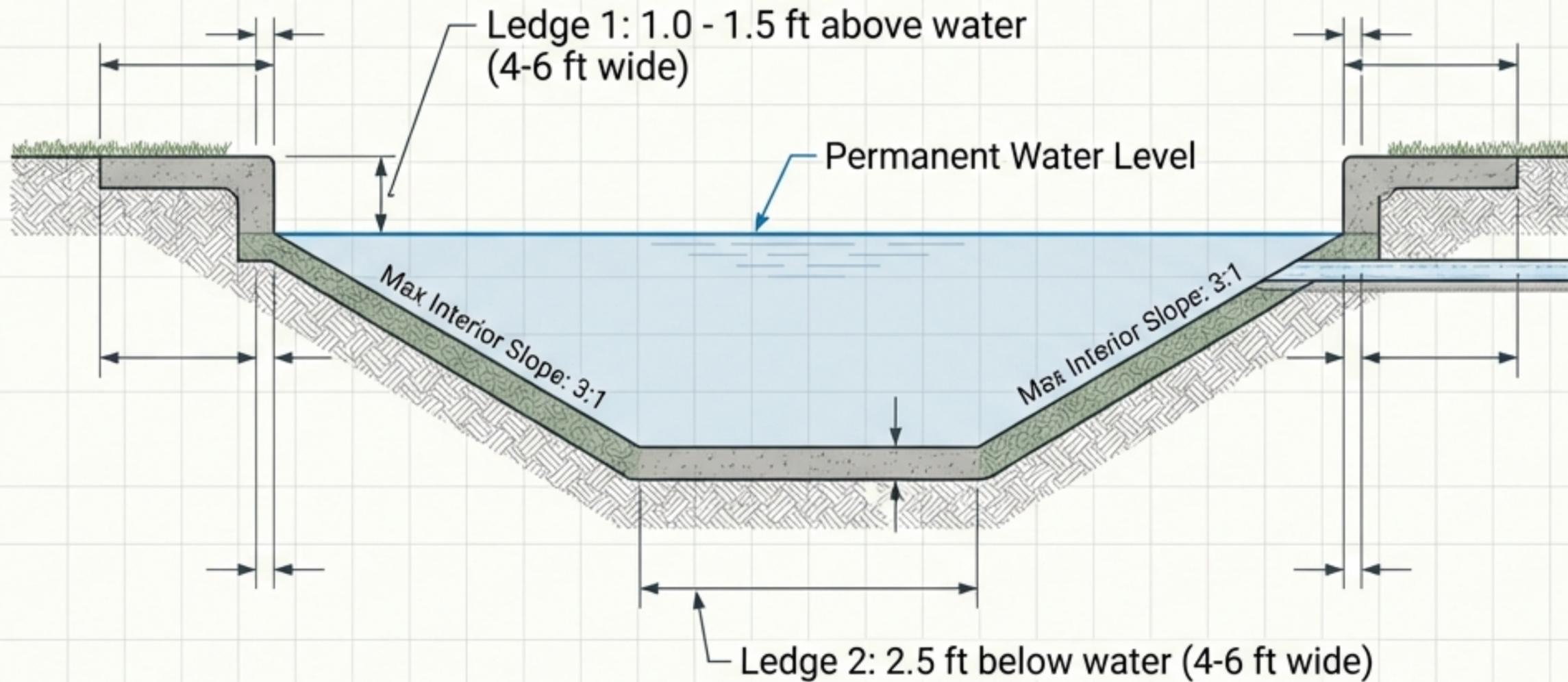


Current data must be multiplied
by future adjustment factors.

100-Year Storm Adjustment Factors

County	Factor
Passaic County	1.50x
Atlantic County	1.39x
Mercer County	1.36x
Hudson County	1.23x

Safety Standards for Stormwater Basins



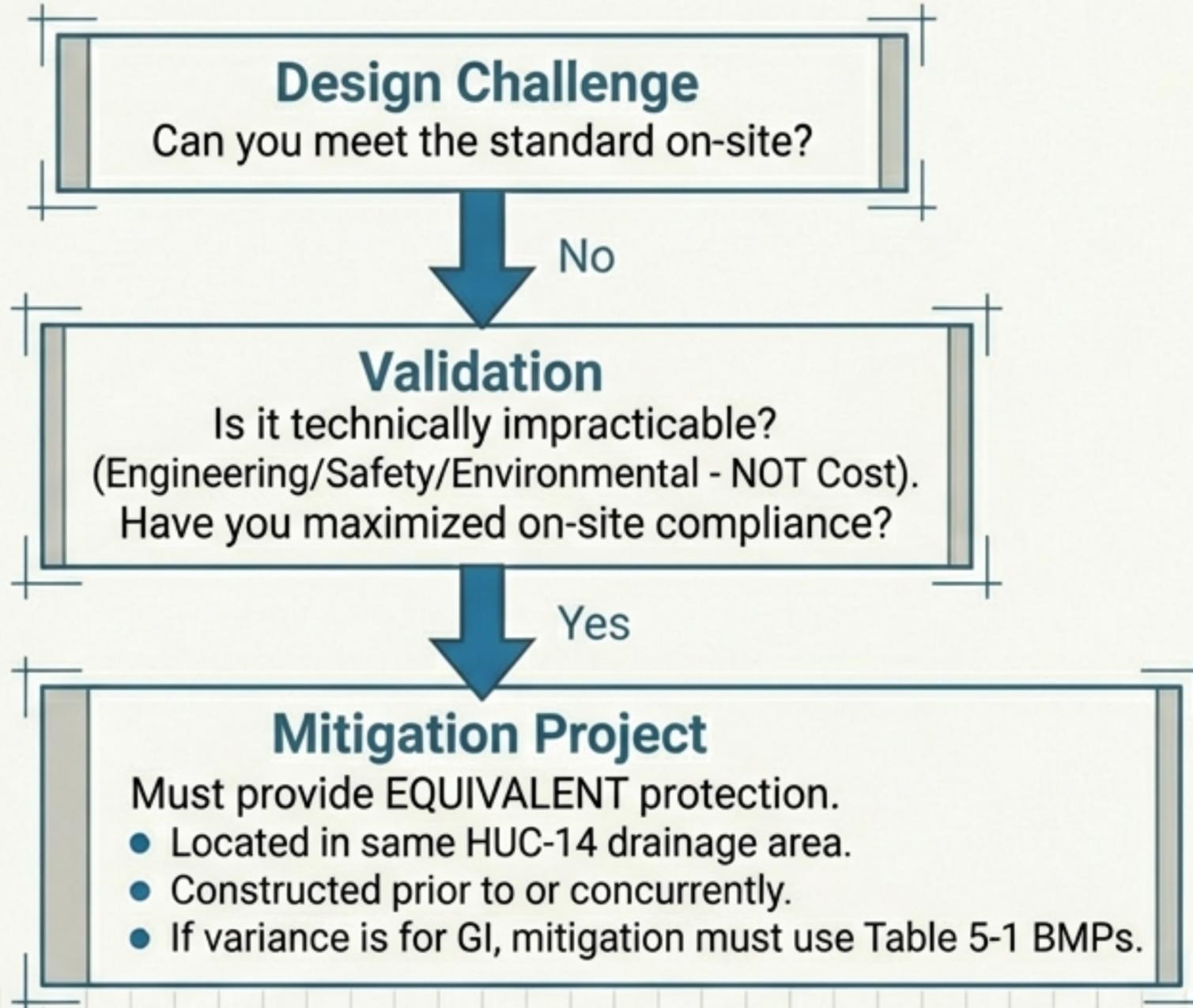
Reservoir Blue

Outlet Protection:

- **Trash Racks:** 
Max 6-inch spacing.
Max velocity 2.5 ft/sec.
- **Overflow Grates:** 
Max 2-inch spacing.
- **Escape Provisions:** 
Ladders/steps required at outlet.

Variances and Mitigation Plans

The path when on-site compliance is impossible.



Special Considerations: Public Roads & Railroads

For Public Transportation Entities Only

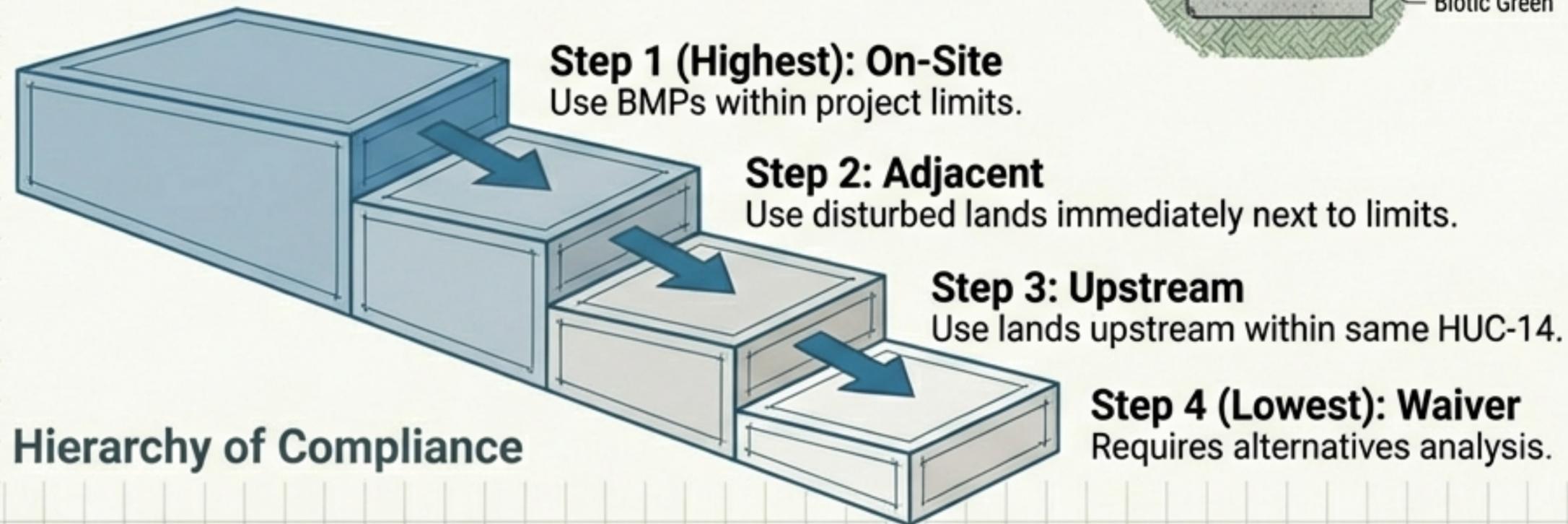


Reservoir Blue

Restriction

New public roadways/railroads are NOT eligible for waivers.

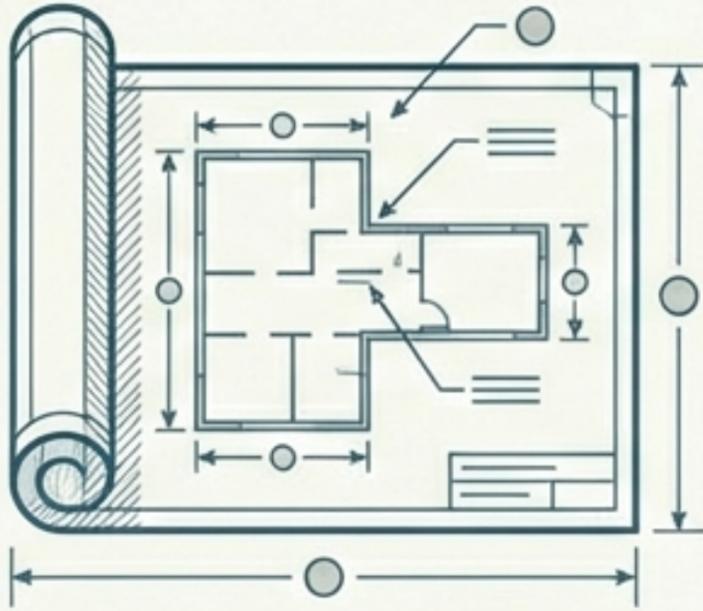
Waivers apply only to enlargements or improvements.



Hierarchy of Compliance

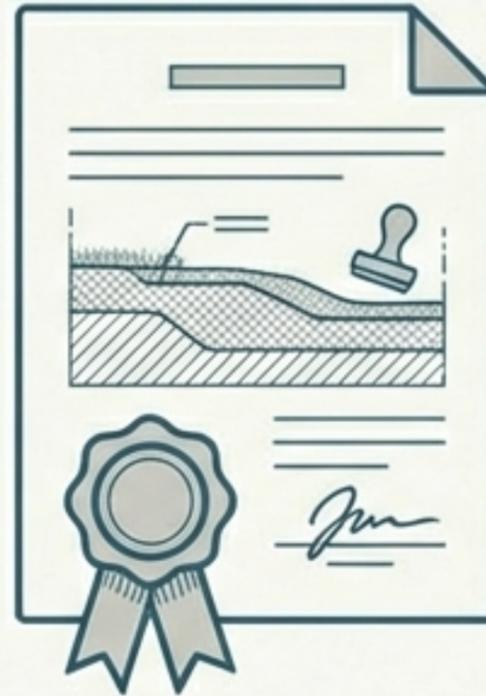
Long-Term Responsibility

Design. Construct. Record. Maintain.



Maintenance Plan

Specific tasks, schedules, cost estimates, and contact info for responsible party.



Deed Notice

Recorded with County Clerk. Describes BMPs and references the maintenance plan. Required for private developments.



Maintenance Logs

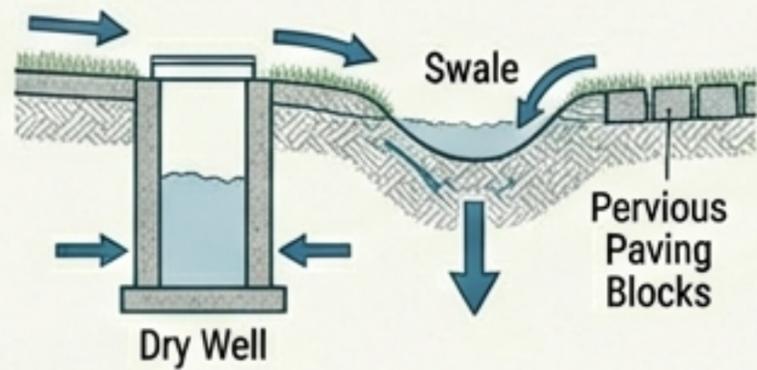
Detailed records of inspections and work. Must be available for public review.

Responsibility cannot be assigned to individual homeowners unless they own the entire project.

Summary Checklist: The 4 Pillars of Compliance

Biotic Green

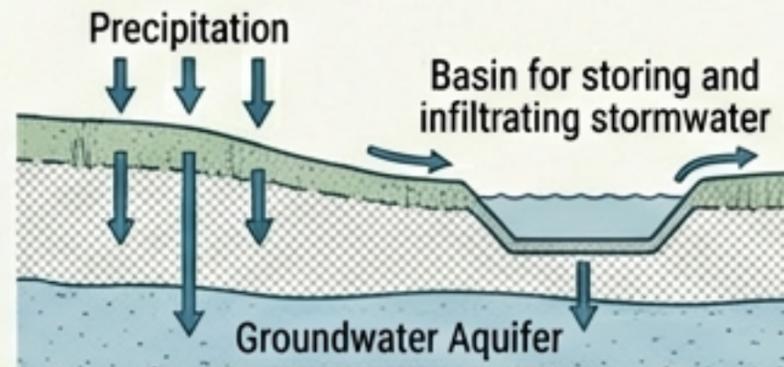
1. Green Infrastructure



Use Table 5-1 BMPs (Dry Wells, Swales, Pervious Paving) for Recharge, Quality, & Quantity. Adhere to drainage area caps.

Reservoir Blue

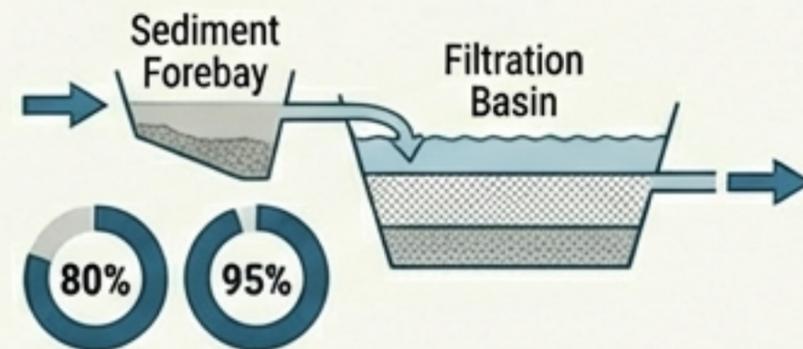
2. Groundwater Recharge



Maintain 100% pre-construction average annual volume OR infiltrate 2-year storm increase.

Reservoir Blue

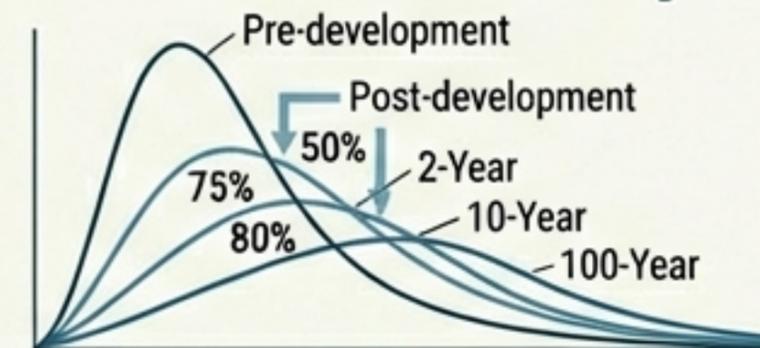
3. Runoff Quality



80% TSS Removal (Standard).
95% TSS Removal (Riparian Zones).
Manage 1.25 inch Water Quality Storm.

Reservoir Blue

4. Runoff Quantity



Reduce peak flows:
2-Year (50%),
10-Year (75%),
100-Year (80%).

Compliance requires integrating these pillars into the earliest phases of site design.