NEW JERSEY'S REGULATORY RESPONSE TO A CHANGING CLIMATE

NJPACT REAL
NJ Protecting Against Climate Threats
Resilient Environments and Landscapes
29 May 2024

WEBINAR 4: STORMWATER MANAGEMENT

NJPACT:
Resilient Environment And Landscapes (REAL) Reforms

To address the unavoidable impacts of climate change, such as sea-level rise, extreme weather, and chronic flooding, NJDEP is pursuing targeted regulatory reforms that will modernize the land use rules and focus on increased resilience throughout the State.

Quick Overview:

- **Developed in response to Governor Murphy's 2020 EO**
- **50+ stakeholder sessions since 2020**
  - **Industry groups**
  - **Federal, State and local government agencies**
  - **Environmental groups**
  - **Insurance and investment agencies**
- **Proposal amends:**
  - FHACA Rules
  - Stormwater Management Rules
  - Coastal Zone Management Rules
  - Freshwater Wetlands Protection Act Rules
  - All other NJDEP rules that reference flooding
- **Purpose:**
  - Address impacts of sea level rise
  - Improve land and water resource protection

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Anticipated Schedule:

- **5.2.24: Proposal filed with Office of Administrative Law**
  - Courtesy copy posted on DEP website
- **5.20.24 through 5.29.24: Webinars**
  - 5.20: Session 1: Sea Level Rise and Inundation Risk Zone
  - 5.22: Session 2: Environmental Enhancements
  - 5.23: Session 3: Coastal Climate Protection
  - 5.29: Session 4: Stormwater
- **July 2024: Anticipated Publication in New Jersey Register**
  - Three public hearings
  - 90-day comment period
- **Summer/Fall 2025: Anticipated Adoption**
  - Rule adoption documents must be filed with OAL within one year of New Jersey Register publication

Scope of Rulemaking

- **New standards will apply only to:**
  - New development
  - Redevelopment
  - Substantial improvements to buildings

- **Rulemaking will not:**
  - Affect existing development
  - Create "no-build" zones
  - Require roads and buildings to be elevated when doing so is impracticable

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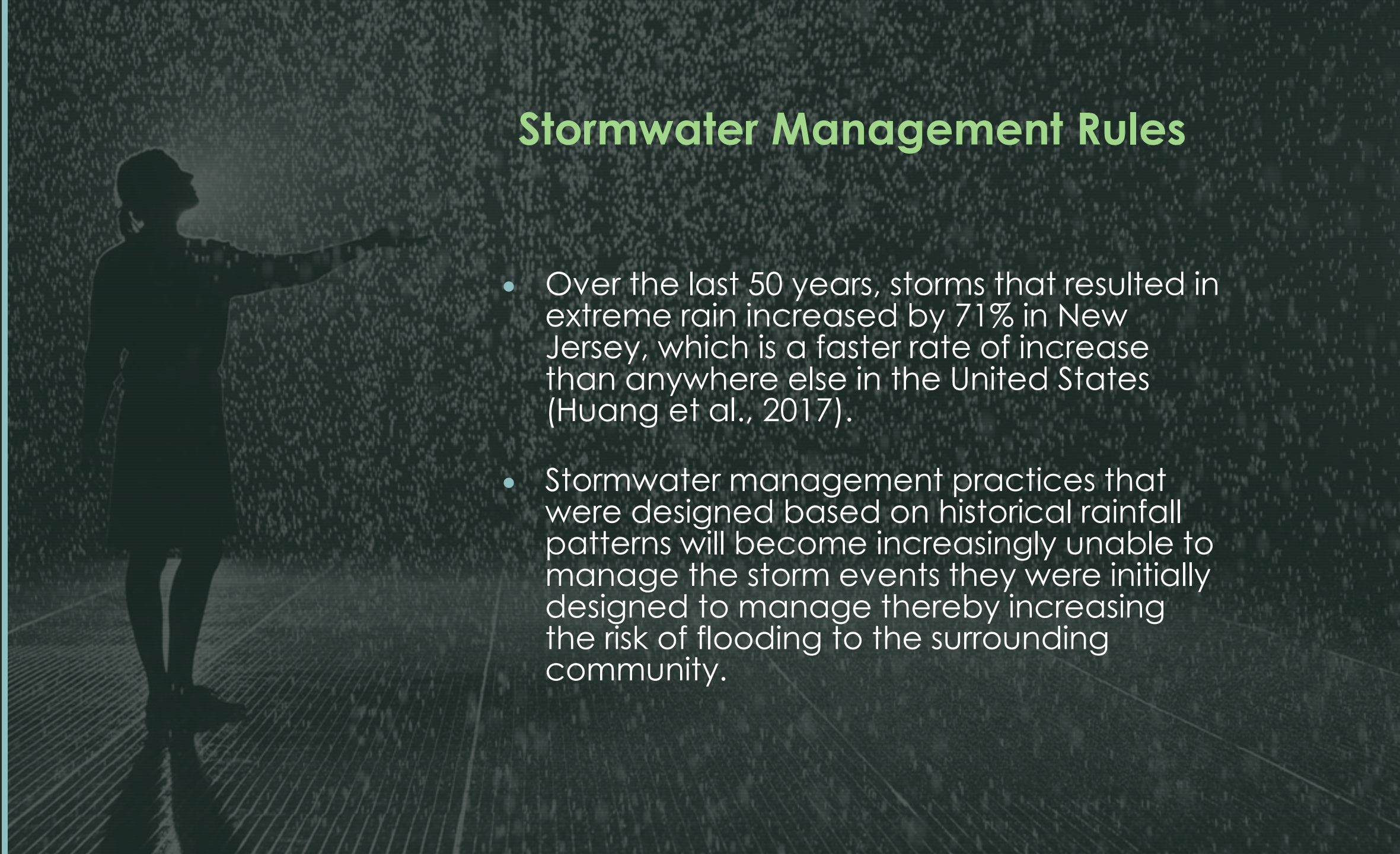
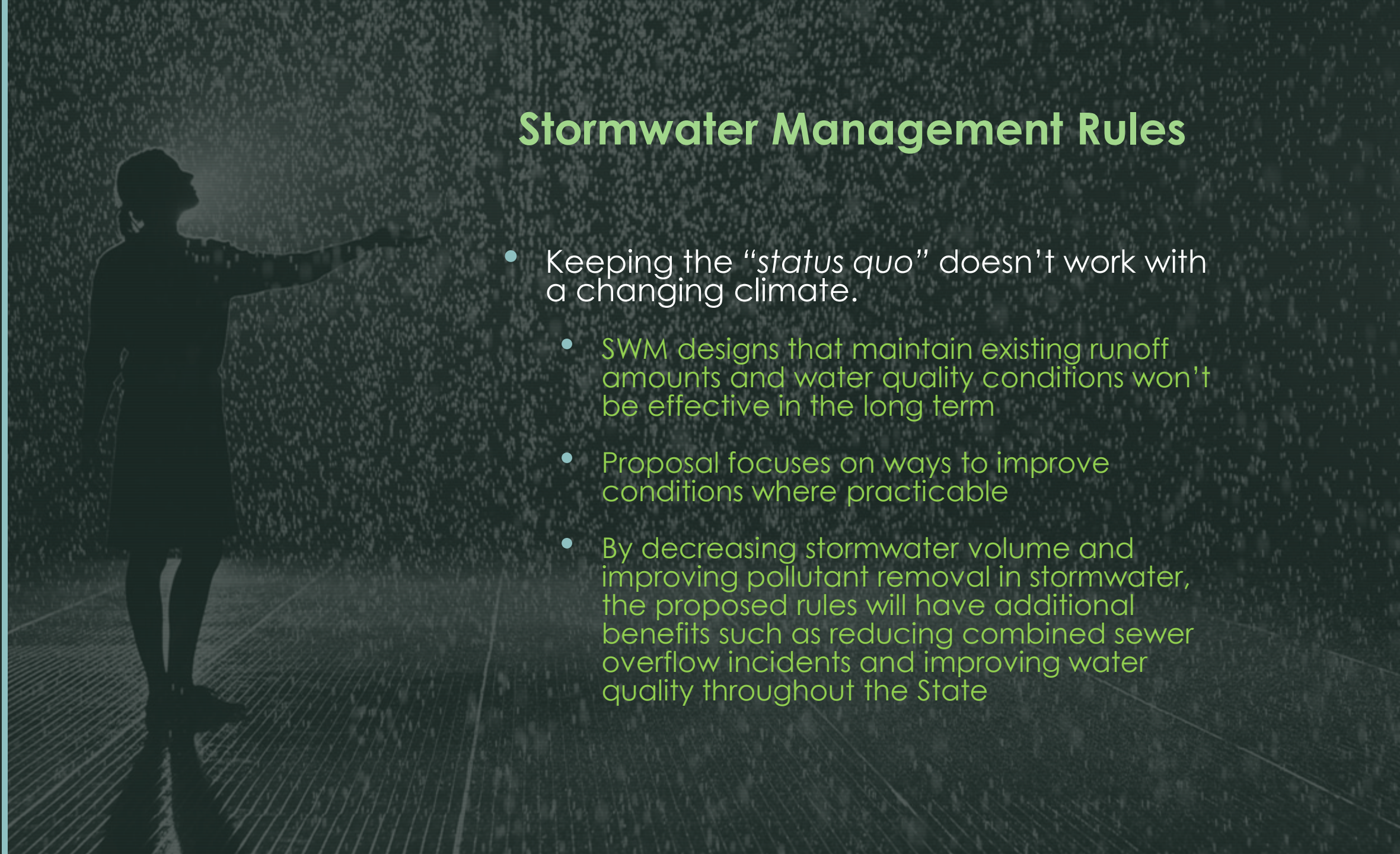
To address the unavoidable impacts of climate change, such as sea-level rise, extreme weather, and chronic flooding, NJDEP is pursuing targeted regulatory reforms that will modernize the land use rules and focus on increased resilience throughout the State.

- Protect against chronic inundation, sea-level rise, and flood damage
- Protect critical facilities and infrastructure
- Protect land and water resources
- Improve stormwater management
- Encourage nature-based solutions
- Support renewable energy deployment
- Improve DEP permitting processes



Stormwater Management Rules

- Over the last 50 years, storms that resulted in extreme rain increased by 71% in New Jersey, which is a faster rate of increase than anywhere else in the United States (Huang et al., 2017).
- Stormwater management practices that were designed based on historical rainfall patterns will become increasingly unable to manage the storm events they were initially designed to manage thereby increasing the risk of flooding to the surrounding community.



Stormwater Management Rules

- Keeping the "*status quo*" doesn't work with a changing climate.
  - SWM designs that maintain existing runoff amounts and water quality conditions won't be effective in the long term
  - Proposal focuses on ways to improve conditions where practicable
  - By decreasing stormwater volume and improving pollutant removal in stormwater, the proposed rules will have additional benefits such as reducing combined sewer overflow incidents and improving water quality throughout the State

N.J.A.C. 7:8-1.2
Definitions

- Amending the definition of "disturbance" to clarify that certain maintenance/repair activities are not subject to these rules. Examples include:
  - Milling & repaving, and patching broken pavement
  - Repairing or replacing sidewalks, median barriers, curbs, inlets, and guiderails
  - Repairing or replacing traffic, utility and ITS structures on poles, such as overhead signage and traffic signals
  - Geotechnical and archeological investigation activities; installation of one or more monitoring wells; construction of a gauge, weir, or similar device
  - Removal of accumulated sediment and debris from a channel.

N.J.A.C. 7:8-1.2
Definitions

- Amend the definition of "major development" to ensure consistency between developments subject to DEP review and developments subject to local review under municipal stormwater control ordinances.
  - This would eliminate a gap in the level of protection for water quality and flood prevention between State and municipal project reviews.

N.J.A.C. 7:8-1.2
Definitions

- Amend the definition of "major development" to include the reconstruction of one-quarter acre or more of regulated motor vehicle surface or regulated impervious surface.

N.J.A.C. 7:8-1.2
Definitions

"Major development" means an individual "development," as well as multiple developments that individually or collectively result in:

- 1. The disturbance of one or more acres of land since February 2, 2004
- 2. The creation of one-quarter acre or more of "regulated impervious surface" since February 2, 2004
- 3. The creation of one-quarter acre or more of "regulated motor vehicle surface" since March 2, 2021
- 4. The reconstruction of one-quarter acre or more of "regulated motor vehicle surface" or "regulated impervious surface" since [effective date of the rules]
- 5. A combination of 2, 3, and 4 above that totals an area of one-quarter acre or more. The same surface shall not be counted twice when determining if the combination area equals one-quarter acre or more

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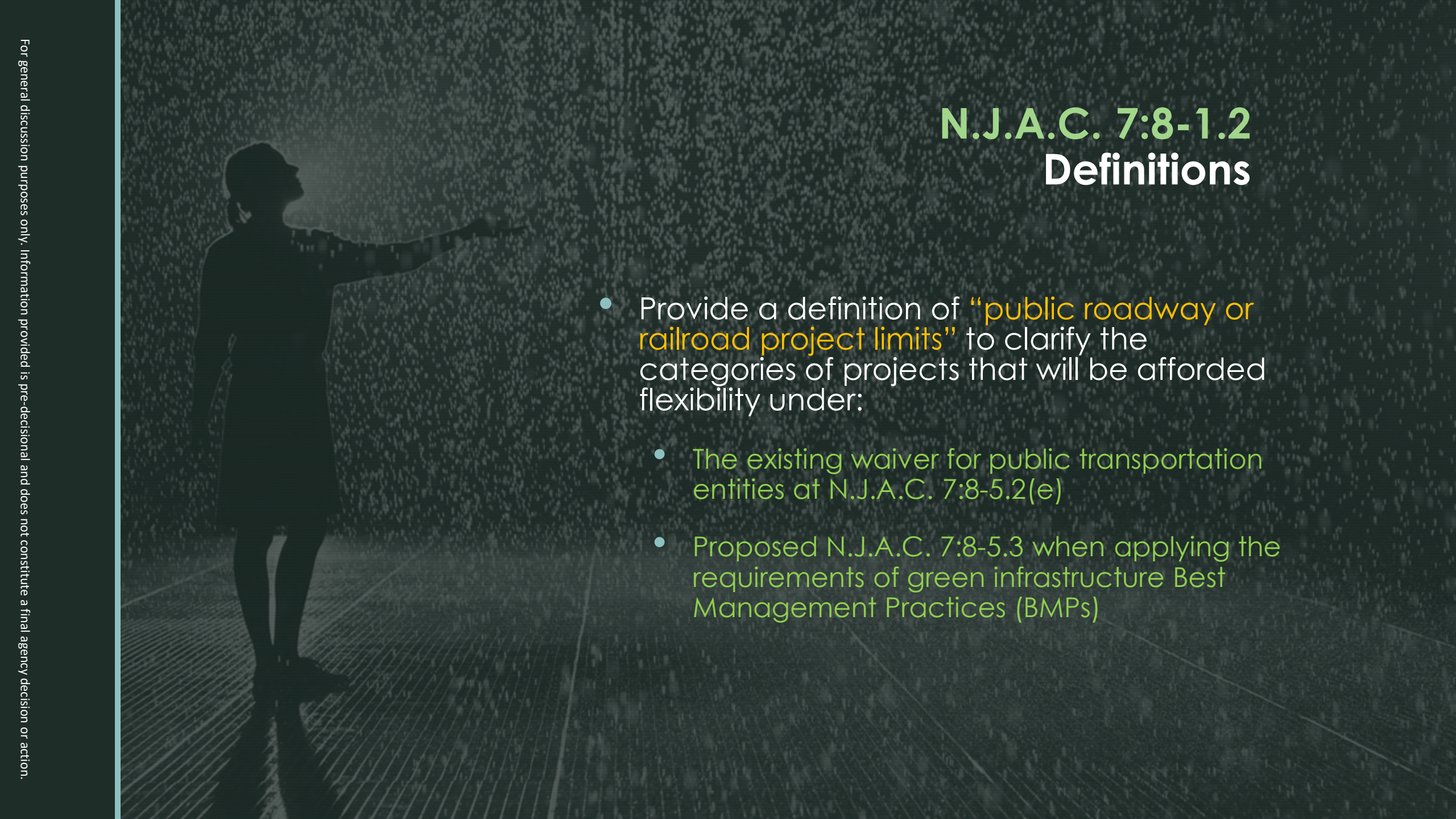
*Proposed new text in orange



N.J.A.C. 7:8-1.2
Definitions

- Provide a definition of "public roadway or railroad project limits" to clarify the categories of projects that will be afforded flexibility under:
  - The existing waiver for public transportation entities at N.J.A.C. 7:8-5.2(e)
  - Proposed N.J.A.C. 7:8-5.3 when applying the requirements of green infrastructure Best Management Practices (BMPs)

N.J.A.C. 7:8-1.2
Definitions

- Provide a definition of "reconstruction" to clarify the modifications to an existing structure that will constitute a major development.
  - As proposed: Reconstruction means "the replacement, rebuilding, or restoration of a lawfully existing structure."

N.J.A.C. 7:8-1.2
Definitions

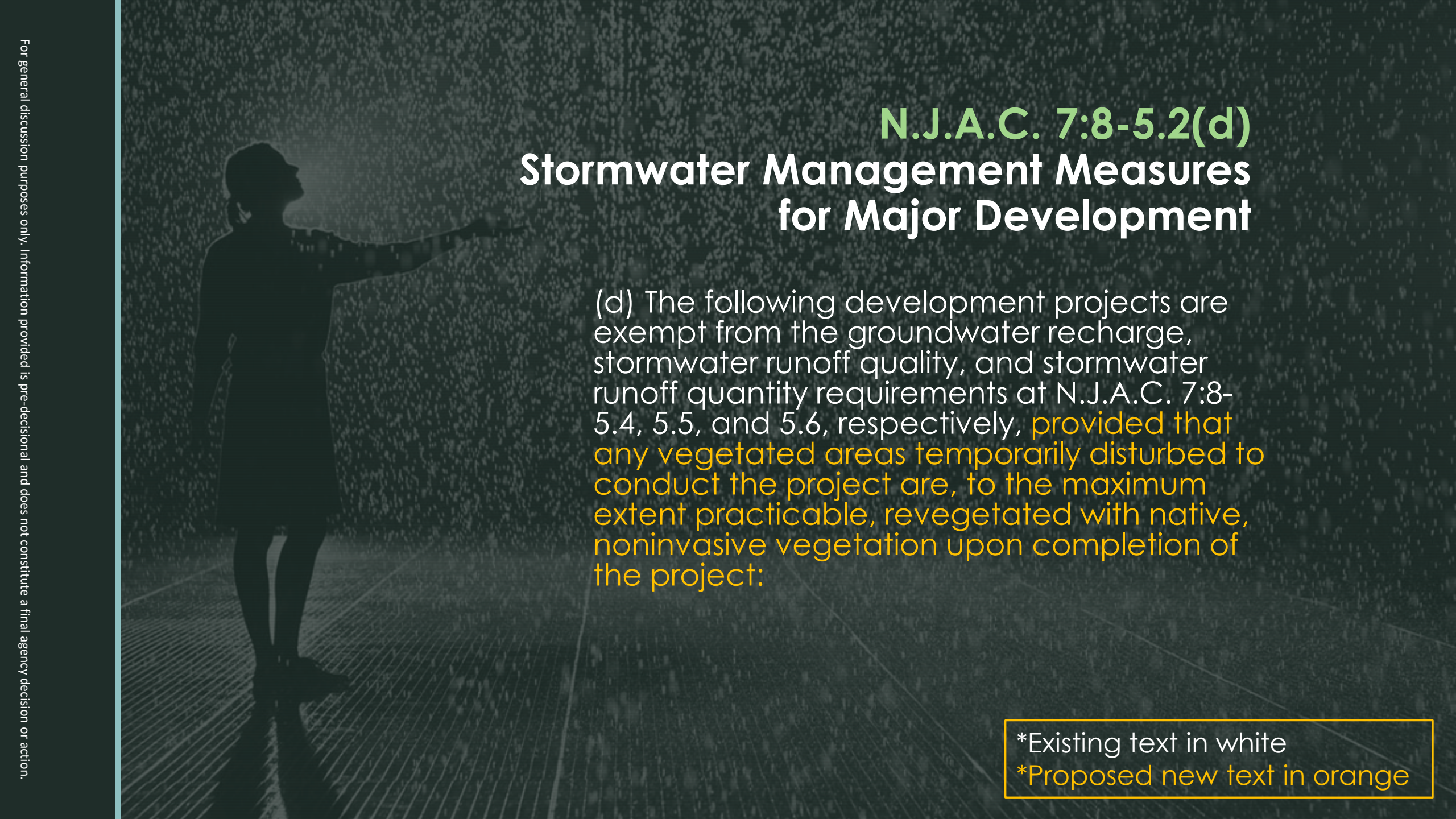
- Provide a definition of "retention" to address activities that retain stormwater runoff for volumetric reduction standards set forth in the stormwater runoff quantity standards.

N.J.A.C. 7:8-1.6
Applicability to Major Development

- Clarification that permit applications are subject to the stormwater management requirements in effect on the date a complete application is submitted to DEP or the local review agency
- Clarification that public roadway or railroad projects are subject to the stormwater management requirements in effect on the date the project achieved a preferred alternative or equivalent milestone provided there is no substantial changes to the design.

N.J.A.C. 7:8-3.4
Characterization and Assessment of the Regional Stormwater Management Planning Area
N.J.A.C. 7:8-4.2
Municipal Stormwater Management Plan and Elements

- Require climate resilience planning in municipal stormwater management plans and regional stormwater management plans.
  - A municipality or regional planning agency would be required to evaluate climate change impacts on stormwater management, including, but not limited to: sea level rise, increased flooding frequency and extent, increased rainfall and intensity.
  - The municipality would identify areas and stormwater management infrastructure vulnerable to flooding and/or sea level rise, as well as measures, such as green infrastructure, that can be utilized to mitigate the impacts.



N.J.A.C. 7:8-5.2(d)
Stormwater Management Measures for Major Development

(d) The following development projects are exempt from the groundwater recharge, stormwater runoff quality, and stormwater runoff quantity requirements at N.J.A.C. 7:8-5.4, 5.5, and 5.6, respectively, provided that any vegetated areas temporarily disturbed to conduct the project are, to the maximum extent practicable, revegetated with native, noninvasive vegetation upon completion of the project:

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*Proposed new text in orange

N.J.A.C. 7:8-5.2(d)
Stormwater Management Measures for Major Development

1. The construction, reconstruction, or repair of an underground utility line or cable, or its supporting infrastructure, such as conduit, junction boxes, and manholes.

2. The construction, reconstruction, or repair of an aboveground utility line or cable, or its supporting infrastructure, such as poles and towers.

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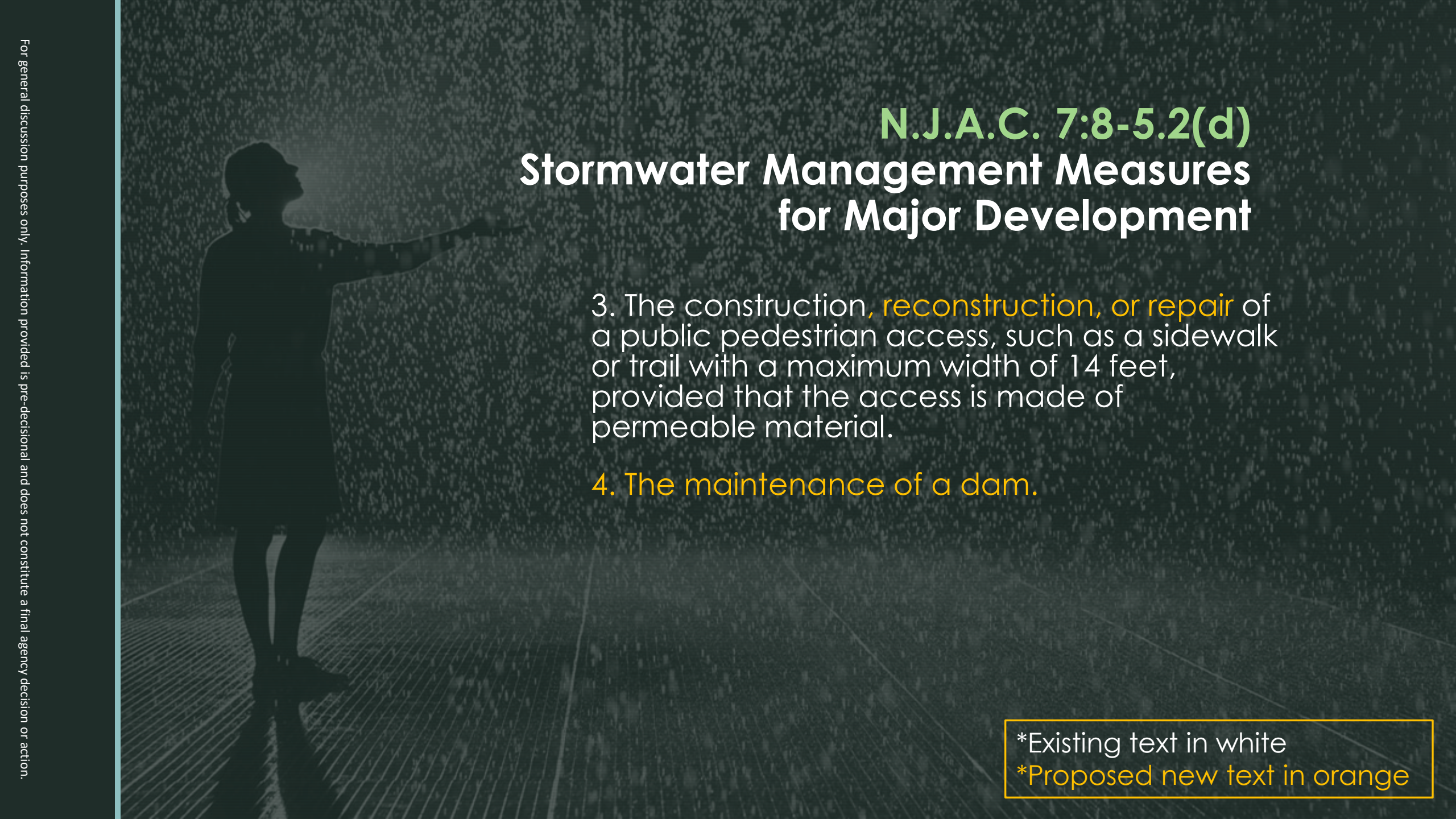

N.J.A.C. 7:8-5.2(d)
Stormwater Management Measures for Major Development

3. The construction, reconstruction, or repair of a public pedestrian access, such as a sidewalk or trail with a maximum width of 14 feet, provided that the access is made of permeable material.

4. The maintenance of a dam.

*Existing text in white
*Proposed new text in orange

N.J.A.C. 7:8-5.2(d)
Stormwater Management Measures for Major Development

5. Public safety improvements undertaken by a public transportation entity as set forth below:

i. Installation of guiderail systems, such as rails, posts, impact attenuators, and non-vegetated treatment surfaces, provided that any pavement utilized consists solely of permeable material;

ii. Installation of traffic, utility and ITS structures on poles including sign structures such as traffic signs, dynamic variable message signs, cameras, radios, traffic signal equipment and their supporting cabinets;

iii. Installation of railroad lineside signaling systems; and

iv. Rockfall mitigation activities that does not result in a net increase of regulated motor vehicle surface or impervious surface.

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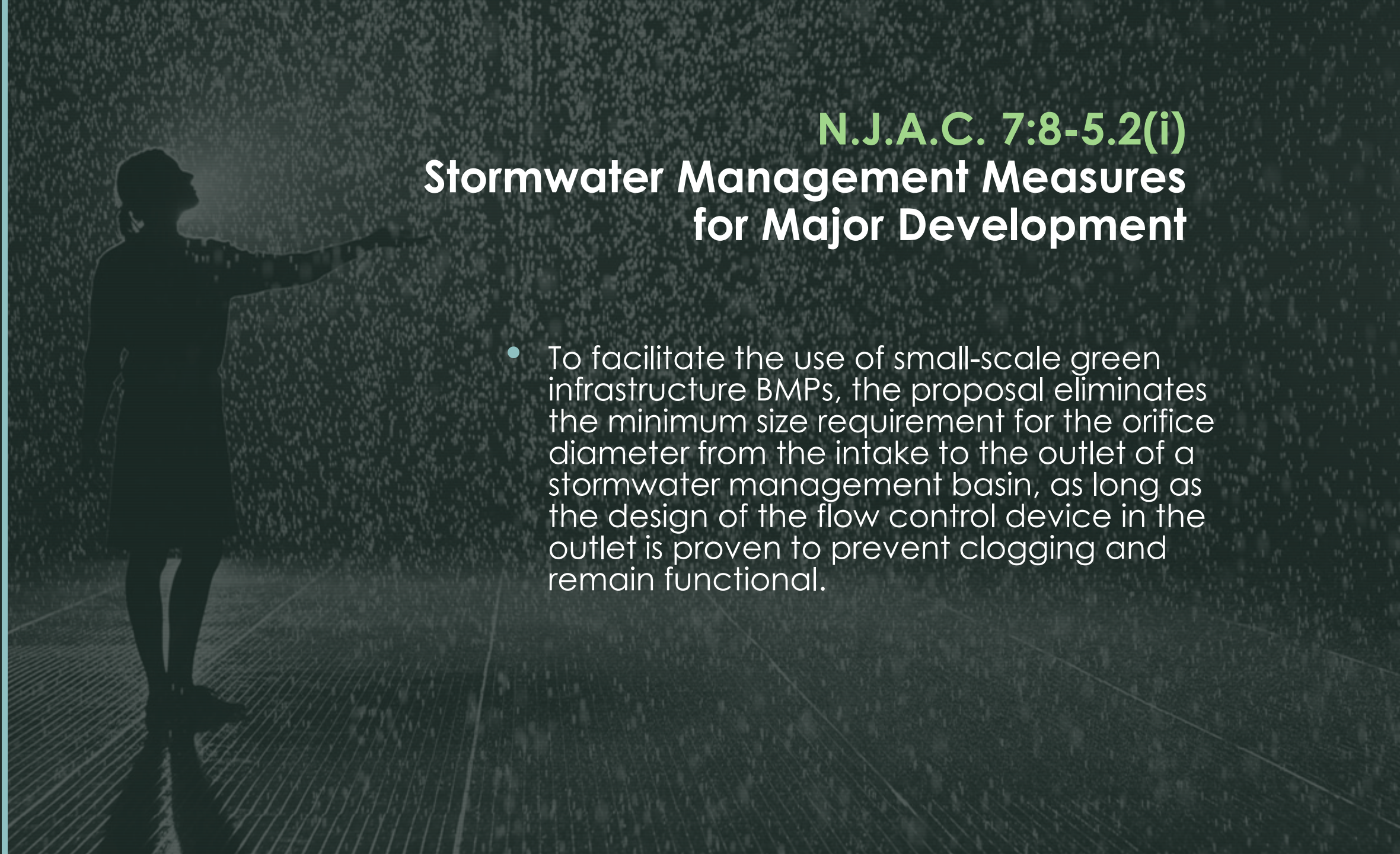


N.J.A.C. 7:8-5.2(i)
Stormwater Management Measures for Major Development

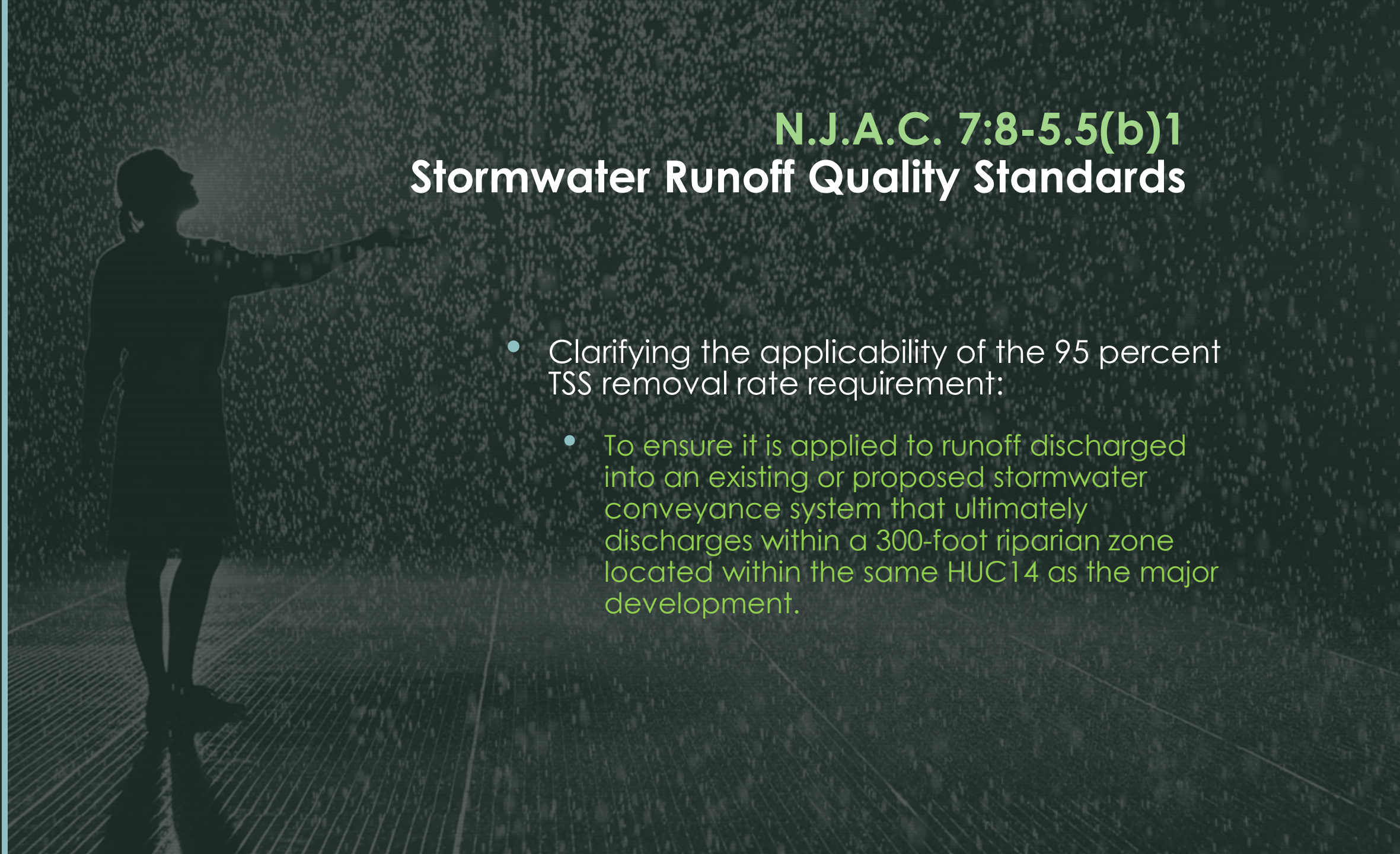
- To facilitate the use of small-scale green infrastructure BMPs, the proposal eliminates the minimum size requirement for the orifice diameter from the intake to the outlet of a stormwater management basin, as long as the design of the flow control device in the outlet is proven to prevent clogging and remain functional.

N.J.A.C. 7:8-5.3(f)-(k)
Green Infrastructure Standards

- Provide public transportation entities with the flexibility to manage stormwater runoff by using green infrastructure Best Management Practices (BMPs)
- Provide a comprehensive, hierarchical approach to ensure the implementation of green infrastructure BMPs to the maximum extent:
  - Considering the hydrologic and hydraulic conditions of lands within and immediately adjacent to the project limits, and in the upstream drainage area.

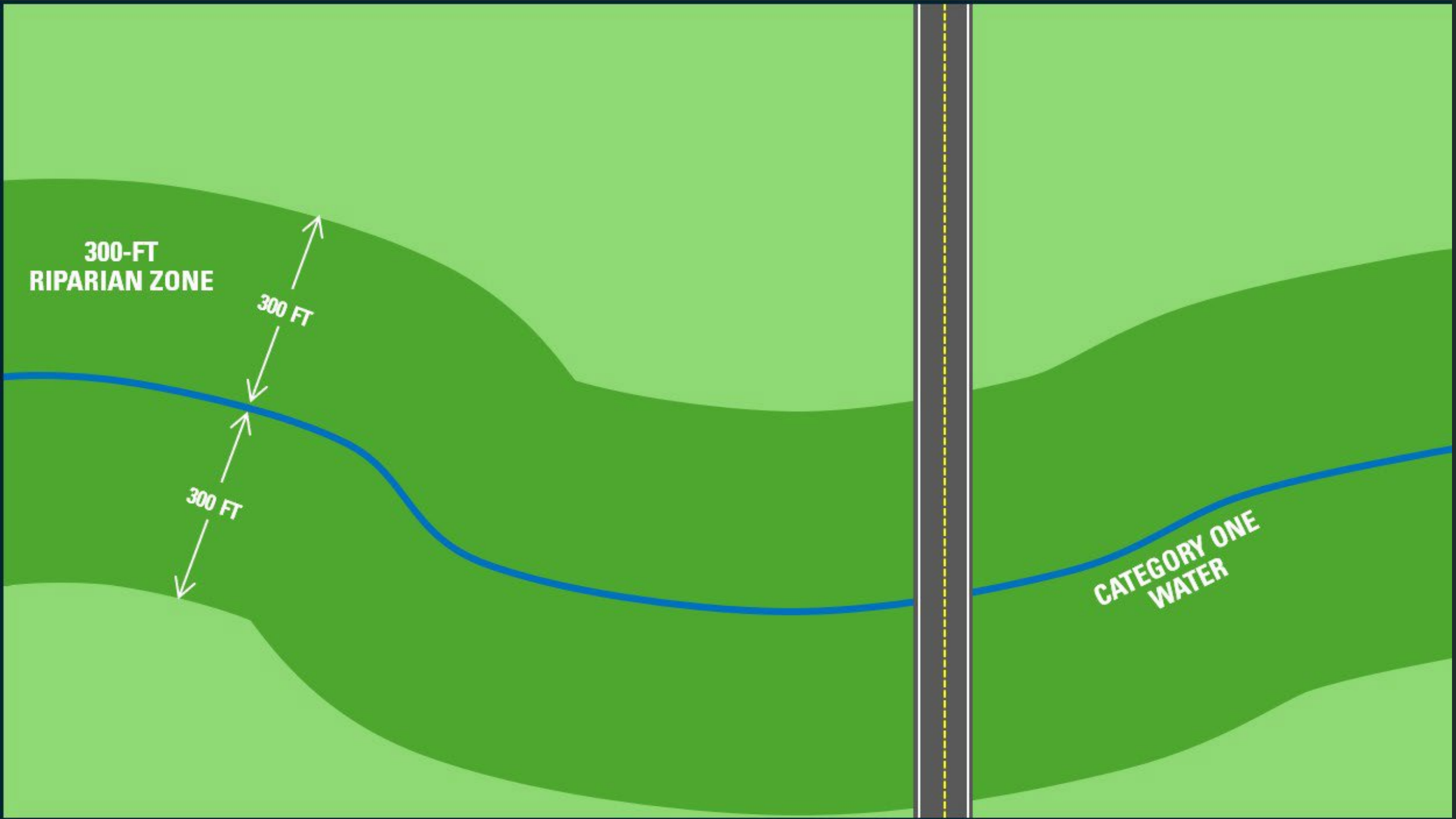
N.J.A.C. 7:8-5.5
Stormwater Runoff Quality Standards

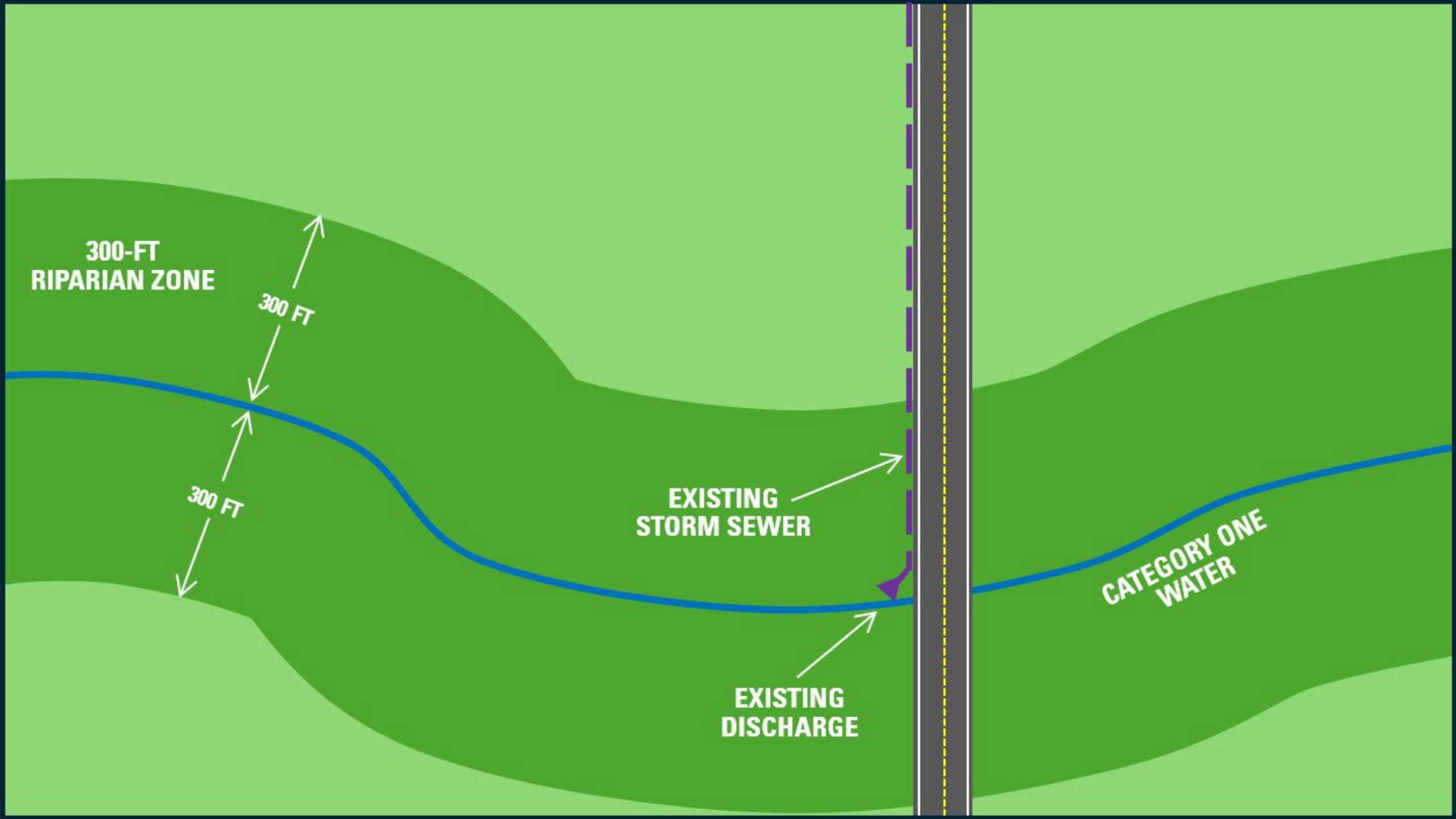
- Require water quality treatment for redeveloped motor vehicle surface, even if there is not a net increase of ¼ acre.
  - Currently no water quality treatment is required unless impervious surface or motor vehicle surface is increased by ¼ acre.
  - Missed opportunity to improve water quality and undo impairments caused by historic development.
  - This is of particular importance given the State's commitment to environmental justice.
  - Many overburdened communities have developed along with motor vehicle surfaces and have experienced degraded water quality from unmanaged runoff as a result.

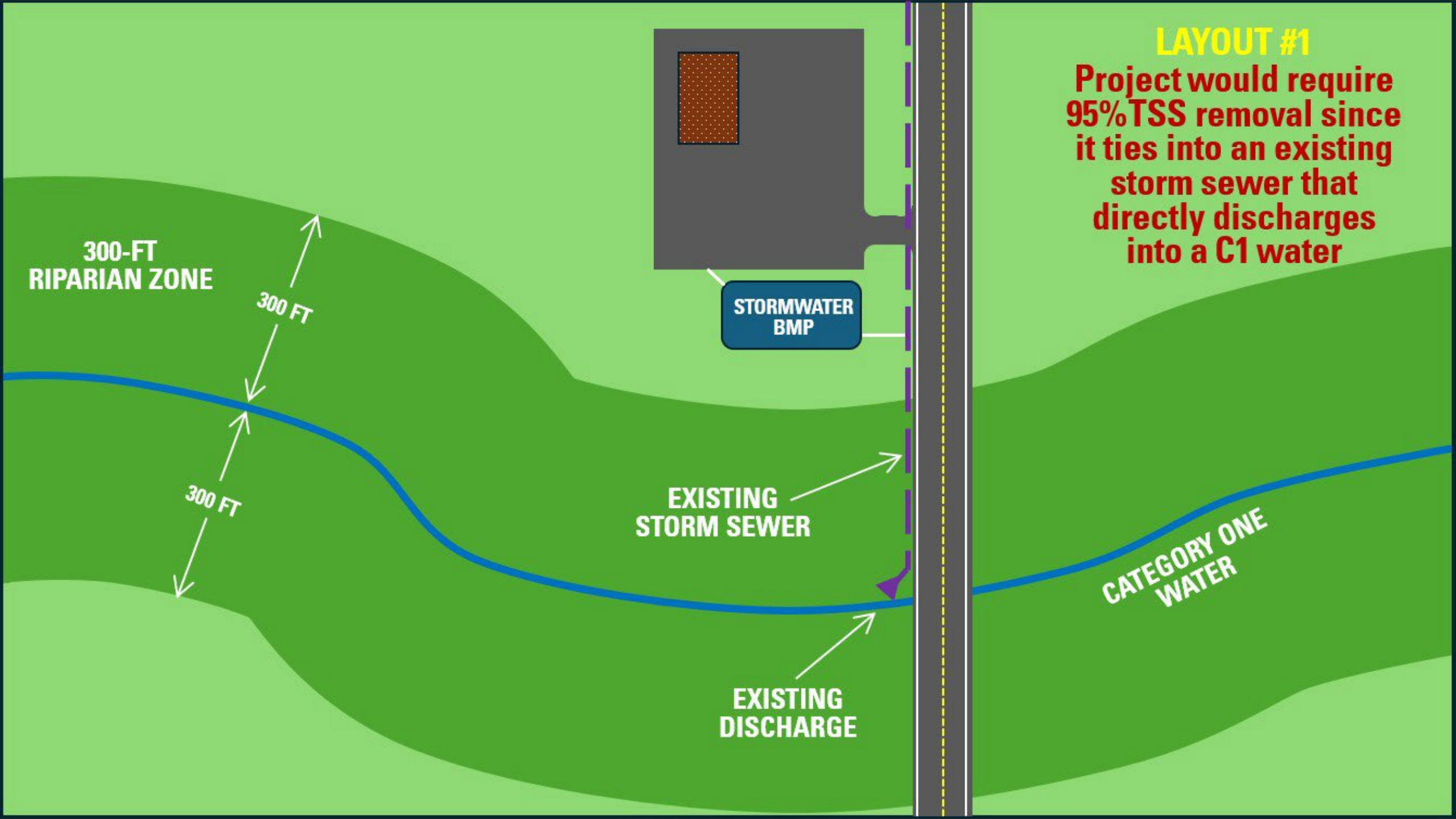


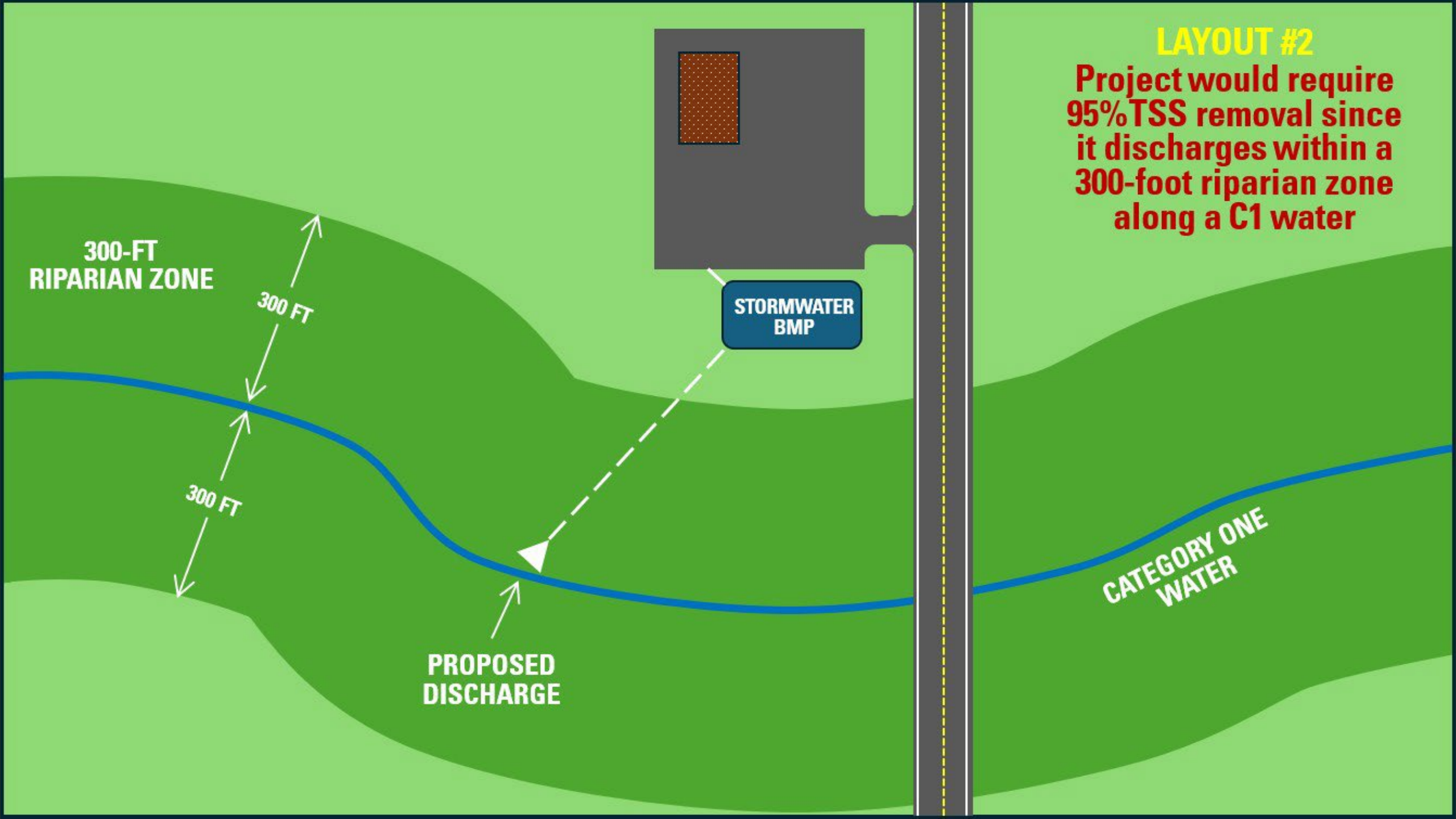
N.J.A.C. 7:8-5.5(b)1
Stormwater Runoff Quality Standards

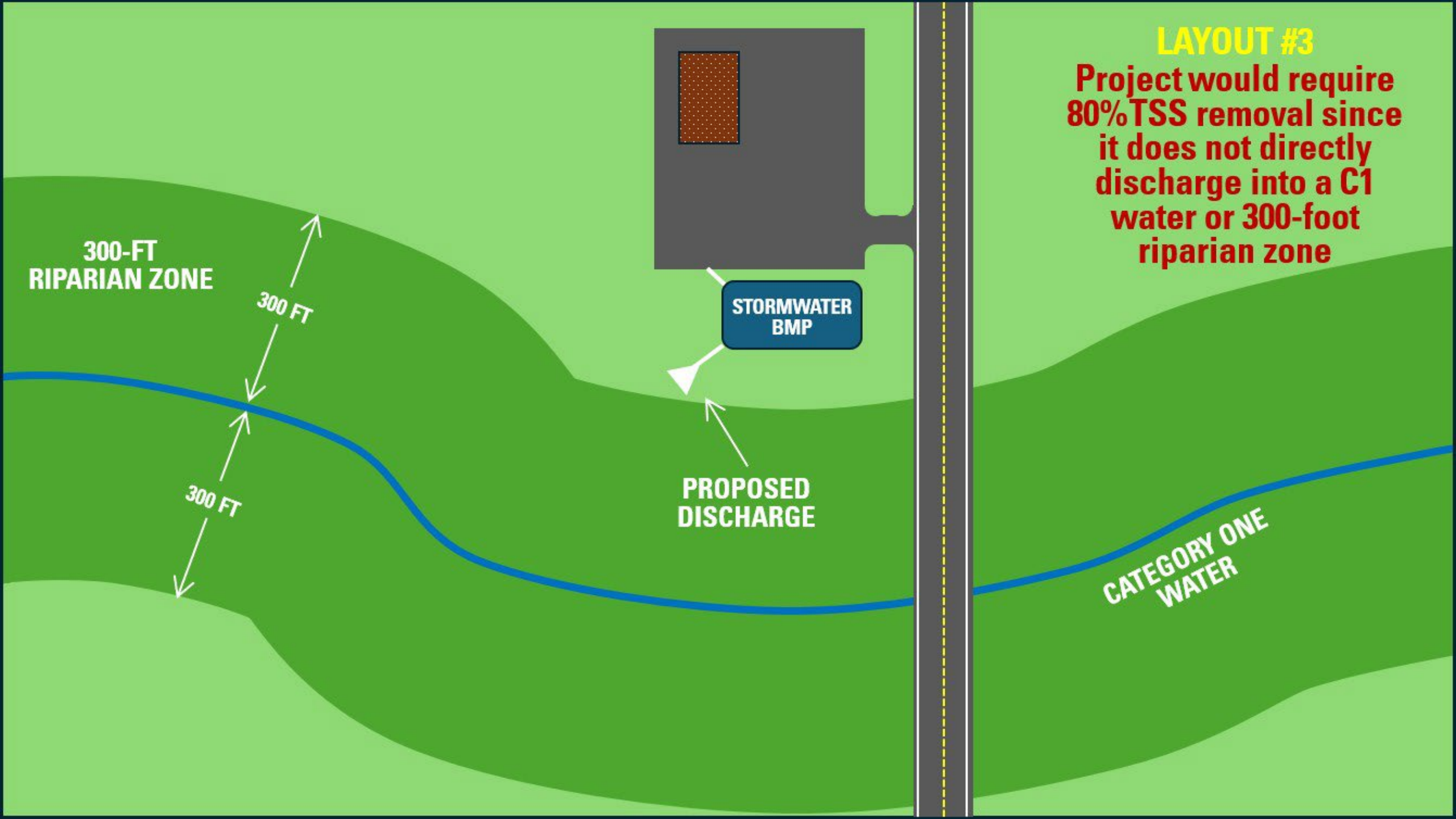
- Clarifying the applicability of the 95 percent TSS removal rate requirement:
  - To ensure it is applied to runoff discharged into an existing or proposed stormwater conveyance system that ultimately discharges within a 300-foot riparian zone located within the same HUC14 as the major development.


300-FT
RIPARIAN ZONE
300 FT
300 FT
CATEGORY ONE
WATER


300-FT
RIPARIAN ZONE
300 FT
300 FT
EXISTING
STORM SEWER
EXISTING
DISCHARGE
CATEGORY ONE
WATER


LAYOUT #1
Project would require 95% TSS removal since it ties into an existing storm sewer that directly discharges into a C1 water
300-FT RIPARIAN ZONE
300 FT
300 FT
STORMWATER BMP
EXISTING STORM SEWER
EXISTING DISCHARGE
CATEGORY ONE WATER


LAYOUT #2
Project would require 95% TSS removal since it discharges within a 300-foot riparian zone along a C1 water
300-FT RIPARIAN ZONE
300 FT
300 FT
STORMWATER BMP
PROPOSED DISCHARGE
CATEGORY ONE WATER


LAYOUT #3
Project would require 80% TSS removal since it does not directly discharge into a C1 water or 300-foot riparian zone
300-FT RIPARIAN ZONE
300 FT
300 FT
STORMWATER BMP
PROPOSED DISCHARGE
CATEGORY ONE WATER

N.J.A.C. 7:8-5.5(b)1
Stormwater Runoff Quality Standards

1. Ninety-five percent TSS removal of the anticipated load, expressed as an annual average, shall be achieved for stormwater runoff from any new or reconstructed motor vehicle surface that is proposed to be:

   i. Discharged within a 300-foot riparian zone (as established by the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-4.1(c)1); or

   ii. Discharged into an existing or proposed stormwater conveyance system that ultimately discharges within a 300-foot riparian zone located within the same HUC14 as the major development.

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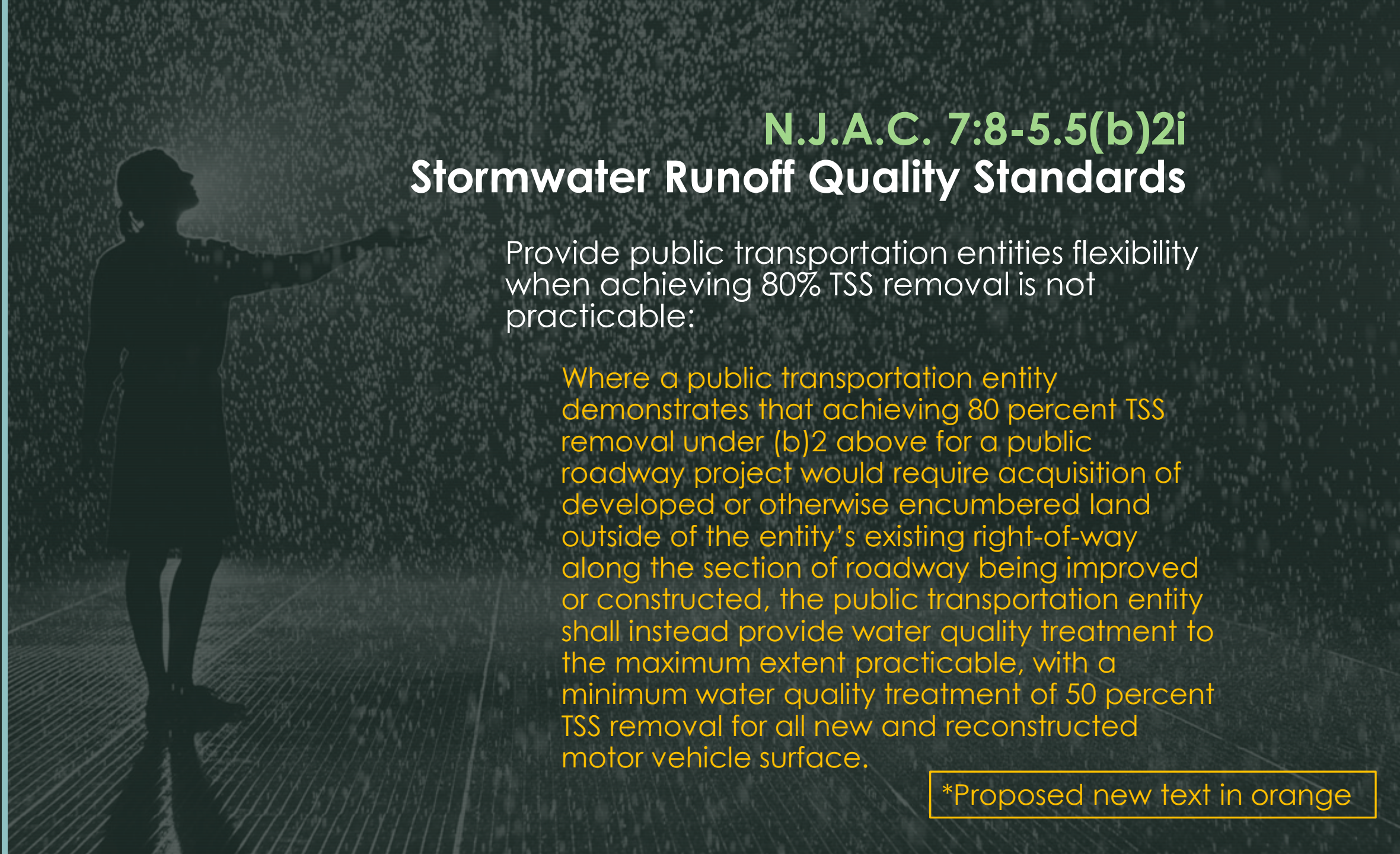


N.J.A.C. 7:8-5.5(b)2i
Stormwater Runoff Quality Standards

Provide public transportation entities flexibility when achieving 80% TSS removal is not practicable:

Where a public transportation entity demonstrates that achieving 80 percent TSS removal under (b)2 above for a public roadway project would require acquisition of developed or otherwise encumbered land outside of the entity's existing right-of-way along the section of roadway being improved or constructed, the public transportation entity shall instead provide water quality treatment to the maximum extent practicable, with a minimum water quality treatment of 50 percent TSS removal for all new and reconstructed motor vehicle surface.

*Proposed new text in orange

N.J.A.C. 7:8-5.5(j)
Stormwater Runoff Quality Standards

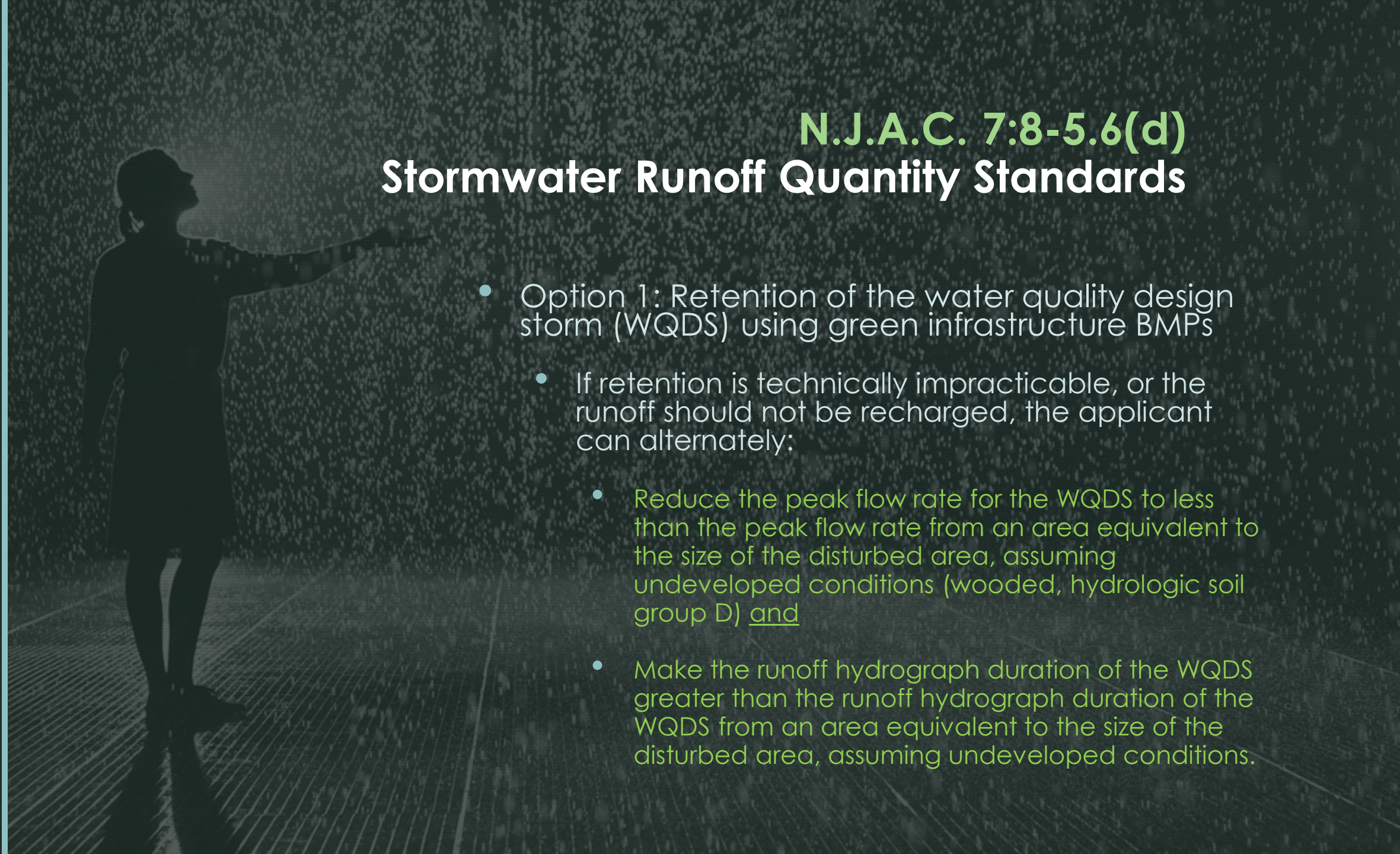
- Incorporate additional measures from the NJPDES rules into Water Quality Design and Performance Standards
  - For example, municipalities located in a watershed that have established, approved, or adopted Total Maximum Daily Load (TMDLs), the proposal requires that major developments incorporate additional measures to address the established, approved, or adopted TMDLs.
    - The TMDL represents the assimilative or carrying capacity of a waterbody, taking into consideration point and nonpoint sources of pollutants, natural background levels of pollutants, and surface water withdrawals.
    - A TMDL quantifies the amount of a pollutant a waterbody can accommodate without violating water quality standards.
    - Additionally, it allocates that loading capacity to known point sources in the form of Waste Load Allocations (WLAs) and to nonpoint sources in the form of Load Allocations (LAs) and includes a margin of safety and optional consideration for reserve capacity.

N.J.A.C. 7:8-5.6(b)
Stormwater Runoff Quantity Standards

- In cases where applicants seek to match peak runoff rates from current conditions:
  - Clarify that the hydrologic and hydraulic analysis of downstream flooding is not required if the change in time is solely a result of the proposed installation of BMPs to meet the stormwater quality standards or the volumetric reduction standards.

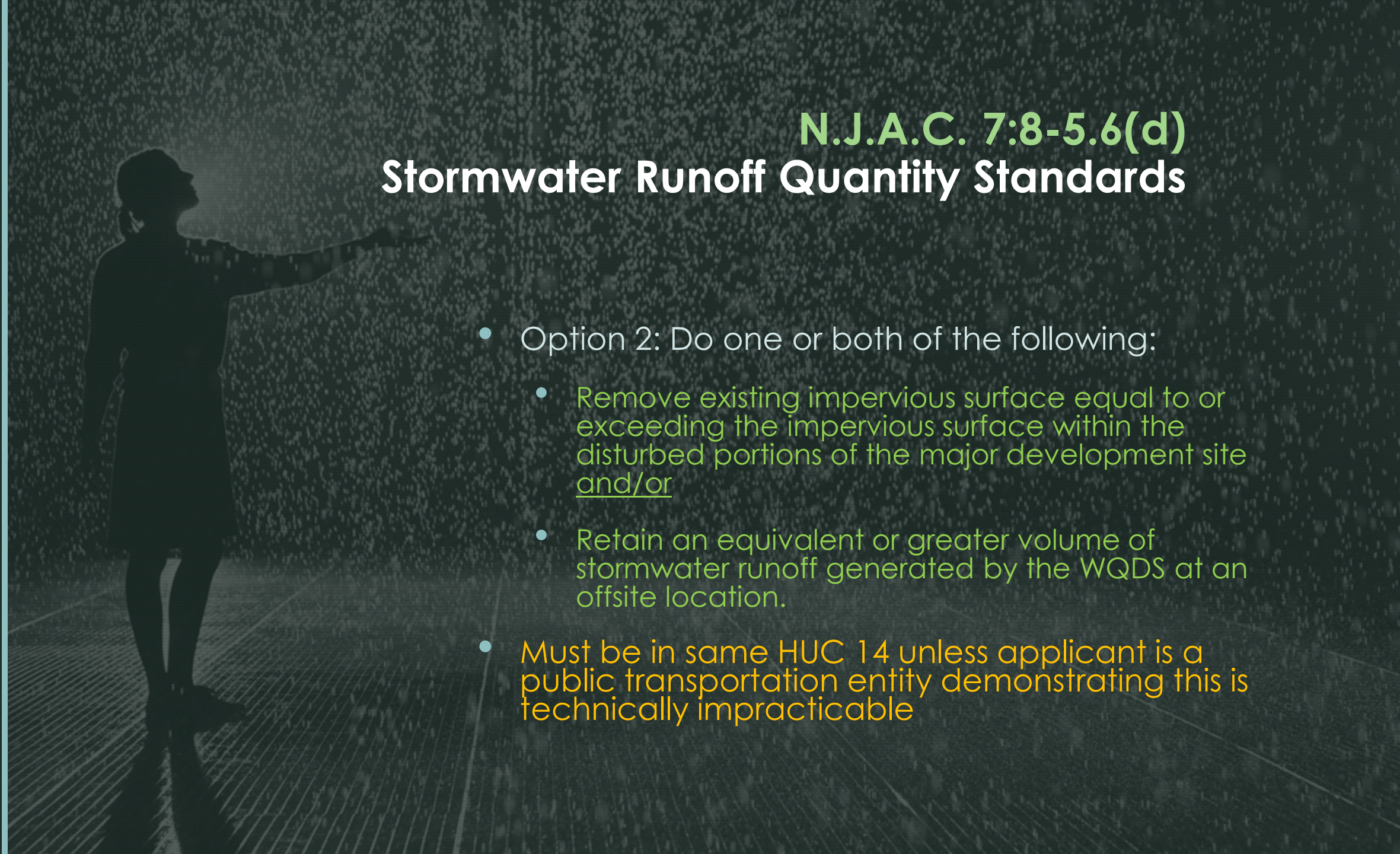
N.J.A.C. 7:8-5.6(d)
Stormwater Runoff Quantity Standards

- Require reduction of runoff volumes to ensure a portion of stormwater volume (particularly in more frequent, smaller storm events) will not be discharged offsite.
  - This will help reduce local and regional flooding.
  - Where volumetric reduction of runoff onsite is demonstrated to be technically impracticable, applicant can instead remove existing impervious surfaces within the same HUC 14.



N.J.A.C. 7:8-5.6(d)
Stormwater Runoff Quantity Standards

- Option 1: Retention of the water quality design storm (WQDS) using green infrastructure BMPs
  - If retention is technically impracticable, or the runoff should not be recharged, the applicant can alternately:
    - Reduce the peak flow rate for the WQDS to less than the peak flow rate from an area equivalent to the size of the disturbed area, assuming undeveloped conditions (wooded, hydrologic soil group D) and
    - Make the runoff hydrograph duration of the WQDS greater than the runoff hydrograph duration of the WQDS from an area equivalent to the size of the disturbed area, assuming undeveloped conditions.



N.J.A.C. 7:8-5.6(d)
Stormwater Runoff Quantity Standards

- Option 2: Do one or both of the following:
  - Remove existing impervious surface equal to or exceeding the impervious surface within the disturbed portions of the major development site and/or
  - Retain an equivalent or greater volume of stormwater runoff generated by the WQDS at an offsite location.
- Must be in same HUC 14 unless applicant is a public transportation entity demonstrating this is technically impracticable

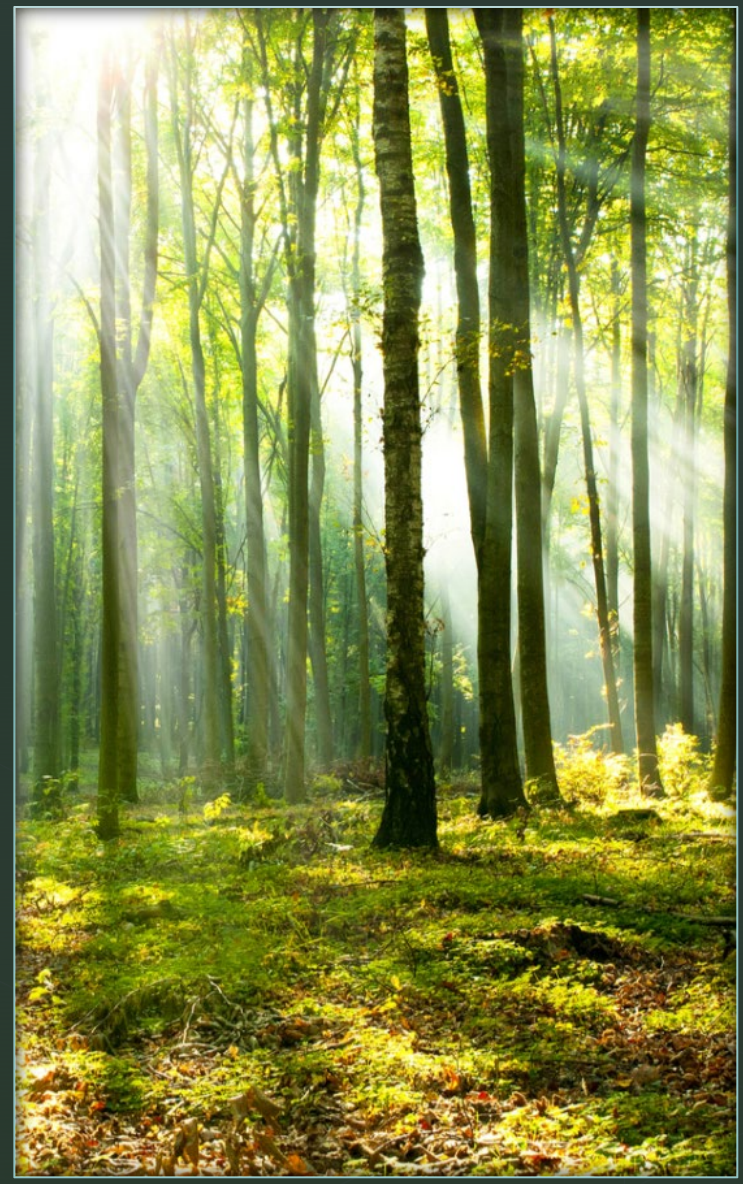
N.J.A.C. 7:8-5.10

Departmental Variance from the Design and Performance Standards for Stormwater Management Measures

- Add a new provision that would apply when onsite stormwater management is technically impracticable.
  - Offsite stormwater management is permitted if municipality has adopted a stormwater mitigation plan.
  - An exception is made for State projects since no municipal approval is required.

Improve Protection of Land & Water Resources
FWPA RULES

- Requiring applicants to demonstrate compliance with the Stormwater Management rules for any project impacting wetlands or transition areas, which is associated with, or part of, a major development. N.J.A.C. 7:7A-2.7
  - Under existing rules, stormwater management review is triggered only for individual permits, and for other authorizations only if the applicant proposes to place the major development within the freshwater wetlands or transition areas themselves.



QUESTIONS?