

**DRAFT**  
**Appendix D:**  
**Highlands Stormwater Control Ordinance Amendments**

**Abstract**

This document provides suggested language for Highlands-specific amendments to existing municipal Stormwater Control Ordinances.

This document is included as Appendix D of the overall Highlands Region Stormwater Management Program Guidance document. For complete documentation, contact your Highlands Council Liaison (<http://www.nj.gov/njhighlands/planconformance/liaisons.html>).

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## **Highlands Council Municipal Plan Conformance Highlands Stormwater Control Ordinance Amendments**

All New Jersey municipalities were required to prepare Stormwater Management Plans and adopt a Stormwater Control Ordinance in order to comply with the New Jersey Stormwater Management Rules at N.J.A.C. 7:8. This document provides Highlands-specific amendments required in order to comply with the Highlands Regional Master Plan (RMP) and reflect RMP resource protection standards. These updates/revisions apply to all Highlands Preservation Area lands, as well as those lands located in the Planning Area of conforming towns.

The following amendments are meant to be inserted into an existing municipal Stormwater Management Ordinance. Section numbering in this amendment refers to the numbering as found in the NJDEP Model Stormwater Ordinance for Municipalities, Appendix D of the NJ Stormwater Best Management Practices Manual, April 2004. **Related RMP policies are included for informational purposes only and are not intended to be adopted as part of the ordinance.** Part I is for a Highlands municipality (all lands conforming) to apply the standards on a municipal wide basis. Part II is for Highlands municipalities that are only conforming for the Preservation Area. Either Part I or Part II should be used, not both. Standards in this ordinance may be amended upon municipal adoption of a Water Use and Conservation Management Plan.

### **I. STORMWATER ORDINANCE AMENDMENTS (Entire Municipality Conforming):**

#### **SECTION 2: Definitions (*new and amended*)**

**Carbonate Rock Area** means an area where rock consisting chiefly of calcium and magnesium carbonates, such as limestone and dolomite, has been identified.

**Current Deficit Area** means any United States Geological Survey 14-digit Hydrologic Unit Code subwatershed area that is identified in the Highlands Regional Master Plan as having negative Net Water Availability, meaning that existing consumptive and depletive water uses exceed the capacity of the ground water supply to sustain.

**Major development (*amended definition*)** means any development that provides for ultimately disturbing one or more acres of land. Disturbance for the purpose of this rule is the placement of impervious surface or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of vegetation, or the redevelopment of previously developed sites.

**Karst** means a distinctive topography that indicates solution of underlying carbonate rocks (such as limestone and dolomite) by surface water or groundwater over time, often producing surface depressions, sinkholes, sinking streams, enlarged bedrock fractures, caves, and underground streams.

**Maximum extent practicable** means designing stormwater management systems so that all reasonable opportunities for using non-structural stormwater practices are exhausted and a structural BMP is implemented only where absolutely necessary.

**Mitigation** means an action by an applicant providing compensation or offset actions for onsite stormwater management requirements where the applicant has demonstrated the inability or impracticality of strict compliance with the stormwater management requirements set forth in NJAC 7:8, in an adopted regional stormwater management plan, or in this local ordinance, and has received a waiver from strict compliance from the municipality. Mitigation shall include the implementation of the approved mitigation plan within the same drainage area where the subject project is proposed, or a contribution of funding toward a municipal stormwater control project, or provision for equivalent treatment at an alternate location, or any other equivalent water quality benefit as approved by the municipality.

**Redevelopment** means land-disturbing activity that results in the creation, addition, or replacement of impervious surface area on an already developed or disturbed site. Redevelopment includes, but is not limited to: the expansion of a building footprint, addition or replacement of a structure, replacement of impervious surface area that is not part of a routine maintenance activity, and land disturbing activities related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety.

## SECTION 4: Stormwater Mitigation Requirements for Major Development

### F: Erosion Control, Groundwater Recharge and Runoff Quantity Standards

#### Subsection 1.b (1):

#### Groundwater Recharge:

*New section (c)* Projects located in a Current Deficit Area: Where the project is located in a Current Deficit Area as identified in Exhibit A, the project shall demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures provide for one of the following provisions:

- (i) Recharge 125 percent of the percentage of the average annual pre-construction groundwater recharge volume for the site (*RMP Policy 2B8 & 2E1*); or
- (ii) In addition to complying with the requirements of section 4.F.1(b), retain on-site with no discharge, the Stormwater Quality Design Volume (SWQDv), defined as the runoff from the 1.25-inch, 2-hour rainfall event. Groundwater recharge or infiltration performed in compliance with 4.F.1.c(i) or 4.F.1.b. above may count toward required retention of the SWQDv. Where groundwater recharge will

result in equal or greater retention than required to meet the SWQD<sub>v</sub>, then it shall constitute compliance with section 4.F.1.c(ii). Where meeting the groundwater recharge requirement will not result in retention of the full SWQD<sub>v</sub>, the major development shall retain any additional volume to meet the requirements of 4.F.1.c.ii.(1) through additional infiltration, or through evapotranspiration or capture and on-site re-use of rainfall. (RMP Policy 2B8)

Subsection 1.b (3): The following types of stormwater shall not be recharged:

*New Section* (c) Carbonate Rock Areas, where surficial or subsurface karst features have been identified and recharge facilities cannot be designed in a manner that would eliminate the concentrated subsurface release of stormwater (RMP Policy 1K4) (Note: the mere presence of carbonate bedrock does not constitute a karst feature).

*New Section* (d) Mitigation Required: In lieu of on-site recharge, the applicant shall be responsible for providing mitigation of the groundwater recharge volume in the required amount. The applicant should provide mitigation, on site if possible and/or practical, or within the same drainage area within which the subject project is proposed, or contribute funding toward a municipal stormwater control project, or provide for equivalent treatment at an alternate location, or provide for another equivalent water quality benefit, in lieu of implementing the required groundwater recharge volume on their specific site. (RMP Policies 2D3, 7G2 & 7G3)

## **SECTION 6: Standards for Structural Stormwater Management Measures**

*(New section)*

D. Mitigation Required: A waiver from strict compliance with the requirements of the Municipal Stormwater ordinance shall be approved by the municipality only in those cases where an applicant has demonstrated the inability to strictly comply with any standard of the municipal stormwater ordinance. A waiver from strict compliance for such projects can only be obtained if the applicant agrees to undertake a suitable mitigation measure identified in the mitigation section of the municipality's Stormwater Management Plan. In such cases, the applicant must submit a mitigation plan detailing how the project's failure to strictly comply will be compensated. In cases where a waiver is granted, an applicant should provide mitigation, if possible and/or practical, within the same drainage area within which the subject project is proposed, or contribute funding toward a municipal stormwater control project, or provide for equivalent treatment at an alternate location, or provide for another equivalent water quality benefit, in lieu of implementing the required stormwater control measures on their specific site. (RMP Policies 2D3, 7G2 & 7G3)

**II. STORMWATER ORDINANCE AMENDMENTS (Preservation Area Only):** *(Please note: Where a municipality that contains both Planning and Preservation Area lands, but is only conforming to the Preservation Area, that municipality may restrict these standards to projects only in the Preservation Area by using this section.)*

**SECTION 2: Definitions**

**Carbonate Rock Area** means an area where rock consisting chiefly of calcium and magnesium carbonates, such as limestone and dolomite, has been identified.

**Current Deficit Area** means any United States Geological Survey 14-digit Hydrologic Unit Code subwatershed area that is identified in the Highlands Regional Master Plan as having negative Net Water Availability, meaning that existing consumptive and depletive water uses exceed the capacity of the ground water supply to sustain.

**Major development** (*amended definition*) means any development that provides for ultimately disturbing one or more acres of land. Disturbance for the purpose of this rule is the placement of impervious surface or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of vegetation, or the redevelopment of previously developed sites located in the Preservation Area.

**Karst** means a distinctive topography that indicates solution of underlying carbonate rocks (such as limestone and dolomite) by surface water or groundwater over time, often producing surface depressions, sinkholes, sinking streams, enlarged bedrock fractures, caves, and underground streams.

**Maximum extent practicable** means designing stormwater management systems so that all reasonable opportunities for using non-structural stormwater practices are exhausted and a structural BMP is implemented only where absolutely necessary.

**Mitigation** means an action by an applicant providing compensation or offset actions for onsite stormwater management requirements where the applicant has demonstrated the inability or impracticality of strict compliance with the stormwater management requirements set forth in NJAC 7:8, in an adopted regional stormwater management plan, or in this local ordinance, and has received a waiver from strict compliance from the municipality. Mitigation shall include the implementation of the approved mitigation plan within the same drainage area where the subject project is proposed, or a contribution of funding toward a municipal stormwater control project, or provision for equivalent treatment at an alternate location, or any other equivalent water quality benefit as approved by the municipality.

**Preservation Area** means lands within the Highlands Region that are located in that portion designated by the Highlands Act as the “Preservation Area” (see metes and bounds description at N.J.S.A. 13:20-7b).

**Redevelopment** means land-disturbing activity that results in the creation, addition, or replacement of impervious surface area on an already developed or disturbed site. Redevelopment includes, but is not limited to: the expansion of a building footprint, addition or replacement of a structure, replacement of impervious surface area that is not part of a routine maintenance activity, and land disturbing activities related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety.

#### SECTION 4: Stormwater Mitigation Requirements for Major Development

##### F: Erosion Control, Groundwater Recharge and Runoff Quantity Standards

###### Subsection 1.b (1):

###### Groundwater Recharge:

*New section (c)* Projects located in the Preservation Area and in a Current Deficit Area: Where the project is located the Preservation Area and in a Current Deficit Area as identified in Exhibit A, the project shall demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures provide for one of the following provisions:

- (i) Recharge 125 percent of the percentage of the average annual pre-construction groundwater recharge volume for the site; (RMP Policy 2B8 & 2E1) or
- (ii) In addition to complying with the requirements of section 4.F.1(b), retain on-site with no discharge, the Stormwater Quality Design Volume (SWQDv), defined as the runoff from the 1.25-inch, 2-hour rainfall event. Groundwater recharge or infiltration performed in compliance with 4.F.1.c(i) or 4.F.1.b. above may count toward required retention of the SWQDv. Where groundwater recharge will result in equal or greater retention than required to meet the SWQDv, then it shall constitute compliance with section 4.F.1.c(ii). Where meeting the groundwater recharge requirement will not result in retention of the full SWQDv, the major development shall retain any additional volume to meet the requirements of 4.F.1.c.ii.(1) through additional infiltration, or through evapotranspiration or capture and on-site re-use of rainfall. (RMP Policy 2B8)

###### Subsection 1.b (3): The following types of stormwater shall not be recharged:

*New Section (c)* Carbonate Rock Areas in the Preservation Area, where surficial or subsurface karst features have been identified and recharge facilities cannot be designed in a manner that would eliminate the concentrated subsurface release of stormwater (*Note: the mere presence of carbonate bedrock does not constitute a karst feature*). (RMP Policy 1K4)

*New Section* (d) Mitigation Required in the Preservation Area: In lieu of on-site recharge, the applicant shall be responsible for providing mitigation of the groundwater recharge volume in the required amount. The applicant should provide mitigation, on site if possible and/or practical, or within the same drainage area within which the subject project is proposed, or contribute funding toward a municipal stormwater control project, or provide for equivalent treatment at an alternate location, or provide for another equivalent water quality benefit, in lieu of implementing the required ground water recharge volume on their specific site. (RMP Policies 2D3, 7G2 & 7G3)

## **SECTION 6:** Standards for Structural Stormwater Management Measures

*(New section)*

D. Mitigation Required: For projects in the Preservation Area a waiver from strict compliance with the requirements of the Municipal Stormwater ordinance shall be approved by the municipality only in those cases where an applicant has demonstrated the inability to strictly comply with any standard of the municipal stormwater ordinance. A waiver from strict compliance for such projects can only be obtained if the applicant agrees to undertake a suitable mitigation measure identified in the mitigation section of the municipality's Stormwater Management Plan. In such cases, the applicant must submit a mitigation plan detailing how the project's failure to strictly comply will be compensated. In cases where a waiver is granted, an applicant should provide mitigation, if possible and/or practical, within the same drainage area within which the subject project is proposed, or contribute funding toward a municipal stormwater control project, or provide for equivalent treatment at an alternate location, or provide for another equivalent water quality benefit, in lieu of implementing the required stormwater control measures on their specific site. (RMP Policies 2D3, 7G2 & 7G3)