

Article 9. Stormwater Management

Part 1 General Provisions

9-10 Purpose

The stormwater management regulations of this article establish minimum requirements to address adverse effects of stormwater runoff associated with new development. Proper management of stormwater runoff will protect property, control stream channel erosion, reduce flooding, protect floodplains, wetlands, water resources, riparian and aquatic ecosystems, and otherwise provide for environmentally sound use of the county's natural resources.

9-11 Scope

Except as otherwise expressly stated, the stormwater management regulations of this article apply to all development within unincorporated Wake County outside the extraterritorial jurisdiction and incorporated boundaries of any municipality.

9-12 Exemptions

The stormwater management regulations of this article do not apply to any of the following development activities:

- 9-12-1 Agriculture, forestry, or mining.
- 9-12-2 Office, institutional, commercial, or industrial development that disturbs a land area of one-half acre or less.
- 9-12-3 Any development in which the owner has accrued a vested right. Wake County recognizes a vested right if either of the following occurred:
 - (A) A subdivision plan, site plan, or development permit was officially approved by Wake County or the State before August 13, 2006 and that plan or permit remains unexpired.
 - (B) The landowner otherwise demonstrates a vested right has accrued under North Carolina Law.

Part 2 Standards for Managing Stormwater Runoff

9-20 Maximum Curve Number after Development

Developers must manage residential runoff so that after development the site will not exceed the following curve numbers, in accordance with procedures specified in the United States Department of Agriculture, Natural Resource Conservation Service, Technical Release 55, Urban Hydrology for Small Watersheds.

Zoning District	Maximum Composite Curve Number, By Soil Group			
	A	B	C	D
R-80W and R-80	37	60	73	79
R-40W and R-40	41	62	75	80
R-30, R-20, R-15, R-10, R-5, Residential Highway, General Business and Office and Institutional	43	63	76	81

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9-20 Maximum Curve Number after Development

9-20-1 Precipitation Depth

Calculations must be based on a precipitation depth of 3 inches over a 24-hour period.

9-20-2 Draw-down Period

Stored water must be drained over a period of not less than 2 days or more than 5 days.

9-20-3 Option for Minor Subdivisions

Developers of residential minor subdivisions have the option of meeting the standards in Sec. 9-20 or limiting the proposed subdivision's impervious surfaces to a maximum of 15%.

9-20-4 Stormwater Credits

(A) Purpose

The purpose of establishing a stormwater credit system is to provide incentives to implement better site design and locate new development in a manner that causes less impact to aquatic resources. Certain development practices reduce the generation of stormwater from the site; thereby reducing the size and cost of stormwater storage. In addition these practices can provide partial removal of many pollutants. The credit system directly translates into cost savings and better protection of water resources.

(B) Disconnected Impervious Surfaces

Disconnected rooftops and other disconnected impervious surfaces are encouraged. Runoff from these disconnected surfaces must be spread over pervious areas as sheet flow. As a credit, these disconnected impervious surfaces will be assigned the lower curve number specified by procedures of the United States Department of Agriculture, Natural Resource Conservation Service, Technical Release 55, *Urban Hydrology for Small Watersheds*.

(C) Reforestation

The planting of trees/shrubs is encouraged as a means of reducing runoff. As credit for such practices, reforested areas will be assigned the curve number for woods in good condition per procedures in the United States Department of Agriculture, Natural Resource Conservation Service, Technical Release 55, *Urban Hydrology for Small Watersheds*. Areas planted with trees/shrubs must meet the following standards to qualify for the credit.

(1) Tree/shrub Density and Spacing

Planted trees or shrubs must meet the minimum density and spacing standards of the USDA, Natural Resources Conservation Service, as specified in the *Field Office Technical Guide for Tree/Shrub Establishment*. Existing trees or shrubs may be used towards meeting the planting standard.

(2) Mulching

An initial application of mulch is required for the area designated for reforestation. Mulching must meet applicable standards of the USDA, Natural Resources Conservation Service, as specified in the *Field Office Technical Guide for Mulching-Temporary Protection of Critical Areas without Seeding*. Existing groundcover may be used towards meeting the mulching standard.

(D) Cluster and Open Space Subdivisions

Cluster and open space subdivisions are encouraged. In applying curve number calculations to such developments, the county may not penalize such subdivisions. Calculations must take into account the lots' proportionate share of right-of-way and permanent open space.

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9-21 Neuse Rules

State stormwater-management requirements that implement the Neuse River Basin Nutrient- Sensitive Waters Management Strategy apply in both the Neuse and Cape Fear Basins.

9-22 Stormwater Design Manual

The Wake County Department of Environmental Services may furnish additional guidance and standards for the proper implementation of the regulations of this article and may provide such information in the form of a *Stormwater Design Manual*. Stormwater management practices that are designed, constructed, or maintained in accord with the *Stormwater Design Manual* must be presumed to comply with these regulations.

9-23 Miscellaneous

9-23-1 Calculations Regarding Ponds, Lakes, and Streams

Surface water bodies may not be assigned a curve number for impervious surfaces. Instead such water bodies will be removed from calculations so that developments are not penalized for their presence.

Part 3 Completion and Maintenance of Improvements
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9-30 Party Responsible for Completion of Improvements

The developer is responsible for completing all stormwater improvements in accordance with the requirements of this article and other applicable ordinances and laws.

9-31 Assurance that Improvements will be Completed

9-31-1 Performance Guarantee

The county may not approve a record plat, or in the case of single-lot development not requiring a record plat may not issue a building permit, until those stormwater improvements required of the developer have been completed or a performance guarantee has been provided. Such performance guarantees must comply with the performance guarantee provisions of Sec. 8-22.

9-31-2 As-Built Plans

Upon completion of required improvements, the developer or the developer's representative must submit as-built plans of required stormwater improvements to the Wake County Department of Environmental Services. These plans must indicate whether stormwater improvements were constructed in accordance with the county approved stormwater plan.

9-32 Assurance that Improvements will be Maintained

9-32-1 Maintenance Required

All stormwater improvements must be maintained so they will continue to serve their intended functions.

9-32-2 Parties Responsible for Maintenance of Improvements

- (A) The developer must maintain stormwater improvements until accepted by a property owners association or lot owner. The developer must disclose which party will be responsible for continued maintenance on the record plat and on the stormwater management plan.

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- (B) Before improvements are accepted for maintenance by the property owners association or lot owner, the developer or the developer's engineer or other representative, as authorized by Statute, must certify to the property owners association or lot owner and to the county that improvements are complete and functioning as designed.

9-32-3 Maintenance Plan

- (A) The developer must record, and reference on the record plat, a maintenance plan that instructs the property owners association or lot owner about the annual maintenance tasks and associated costs for at least a 20-year period.
- (B) It will be the responsibility of the property owners association or lot owner to update the maintenance plan at least every 10 years.

9-32-4 Maintenance Agreement

- (A) The developer must record, and reference on the record plat, a maintenance agreement, or restrictive covenant that sets forth the property owners association's or lot owner's continuing responsibilities for maintenance, including specifying how cost will be apportioned among lot owners served.
- (B) The maintenance agreement must provide that the association and its individual members are jointly and severably liable for maintenance.

9-32-5 Maintenance Easements

The developer must record easements for access, maintenance and inspections by any property owners association and by Wake County Government.

9-32-6 Documents Required Before Plat Approval or Building Permit

All maintenance documents required by this article must be submitted to the Subdivision Administrator or Stormwater Engineer before record plat approval, and such documents must be referenced on the record plat, or, in the case of single-lot developments not requiring record plats, documentation must be submitted to the Zoning Administrator or Stormwater Engineer before building permit issuance.

Part 4 Administration

9-40 Application Requirements

9-40-1 Stormwater Plan Required

For any development requiring stormwater improvements, no applicant may receive a grading, building or other permit required for land disturbance without first having a county approved stormwater management plan.

9-40-2 Submittal Procedures

Stormwater management plans must be submitted and reviewed in conjunction with subdivision plans, or, in the case of single-lot developments requiring stormwater management, in conjunction with site plans.

9-41 Modifications and Waivers

Requests for modifications or waivers of the stormwater management standards of this article must be processed in accordance with the procedures of 19-36.

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9-42 Appeals

9-42-1 Authority

- (A) Any person affected by any decision of the county that relates to interpretation or application of this ordinance may appeal to the hearing panel of the Wake County Human Services and Environmental Services Board.
- (B) Any alleged error of the county in making or refusing to make a decision may be basis for an appeal.

9-42-2 Filing

The appeal must be filed in writing with the Wake County Stormwater Engineer within 30 days of the decision complained of and must specify the grounds for appeal.

9-42-3 Hearing

- (A) The hearing panel of the Human Services and Environmental Services Board must fix a time and place for the hearing.
- (B) At least 10 days prior to the hearing, the hearing panel must publish notice of the hearing in a newspaper of general circulation within the county.
- (C) The hearing panel must render a decision in writing within 45 days of receiving the appeal.

9-42-4 Decision-Making Criteria

In acting on appeals the hearing panel of the Human Services and Environmental Services Board must determine, by simple majority vote, if the appellant has presented substantial evidence that the county erred and whether the county correctly interpreted the stormwater management regulations of Article 9.

9-42-5 Subsequent Appeals

The appellant may appeal the hearing panel's decision to the full Human Services and Environmental Services Board by filing an appeal within 10 days of the hearing panel's decision. Such appeals must follow the same procedure as the original hearing before the Board's hearing panel.

Part 5 Enforcement and Penalties

9-50 General

Failure to complete required improvements or failure to maintain improvements so they continue to function as required are violations and subject to a fine of up to \$1,000 per day and other penalties, remedies, and enforcement powers specified in Article 20.

9-51 Inspection of Stormwater Improvements

Wake County agents and officials have the right to inspect sites to determine whether required stormwater improvements are being installed and maintained in compliance with this ordinance.

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