



Stormwater Management

STORMWATER MANAGEMENT PLAN REVIEW CHECKLIST

The following items shall be incorporated with respect to specific site conditions, in a stormwater management plan: (1 Copy and 1 Electronic copy of plans and specifications should be submitted)

APPLICATION FOR STORMWATER PERMIT FORM

- Completed, signed & notarized application
- Accurate application fee
- Drawings and specifications sealed, signed and dated by a Licensed North Carolina Professional Engineer or Licensed North Carolina Landscape Architect

LOCATION INFORMATION

- Project location (roads, streets, landmarks)
- North arrow and scale
- Property Identification Number (PIN)
- Latitude/Longitude (Decimal Degrees)

GENERAL SITE FEATURES (Plan elements)

- Legend, North arrow & scale, etc. (1 inch=50 feet minimum scale)
- Property lines
- Existing contours (topographic lines)
- Proposed contours
- Limits of disturbed area (provide acreage total, delineate limits, and label)
- Planned and existing building locations and elevations (Total Buildout Potential)
- Planned & existing road locations & elevations
- Lot and/or building numbers
- Geologic features: rock outcrops, seeps, springs, wetland and their limits, streams, lakes, ponds, dams, etc.
- Easements and drainage ways
- Profiles of streets, utilities, ditch lines, etc.
- Required Army Corps 404 permit and Water Quality 401 certification (e.g. stream disturbances over 150 linear feet)

PERMANENT STORMWATER CONTROL MEASURES (on plan)

- Location of deeded easements to all measures for maintenance
- Location of Permanent Stormwater measures
- Construction drawings and details for Permanent measures
- Size and location of culverts
- Size and location of subsurface drainage conveyances

SITE DRAINAGE FEATURES

- Existing and planned drainage patterns (include off-site areas that drain through project)
- Sub-watershed delineation
- Soil information: type, special characteristics
- Soil information below culvert storm outlets

- Name and classification of receiving water course or name of municipal operator (only where stormwater discharges are to occur)

STORMWATER CALCULATIONS

- Percentage of Impervious area for project
- Pre-construction and post construction runoff calculations for each outlet from the site (at peak discharge points)
- Pre-construction and post-construction hydrographs
- Design calcs of culverts and storm sewers
- Discharge and velocity calculations for open channel and ditch flows (easement & right-of-ways)
- Design calcs of cross sections and method of stabilization of existing and planned channels (include temporary linings)
- Design calcs and construction details of energy dissipators below culvert and storm sewer outlets (diameters & apron dimensions)
- Design calculations and hydrographs of pond routing through detention basins

STABILIZATION

- Types and locations of vegetative cover applied to disturbed areas
- Pavement types applied to roadways

NARRATIVE AND CONSTRUCTION SEQUENCE

- Narrative describing the nature & purpose of the construction activity
- Construction sequence related to permanent stormwater management measures on site
- Estimated cost of permanent stormwater measures.
- Contact information of end user responsible for annual inspection, maintenance and repair of stormwater management system. (ie. Homeowners Association, property manager, etc..)

OPERATION & MAINTENANCE AGREEMENT

- Agreement

DEED RESTRICTIONS/COVENANTS

- Proposed covenants
- Proposed deed restrictions

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**PERFORMANCE SECURITY FOR INSTALLATION
AND MAINTENANCE**

N/A Performance Surety Bond, Letter of Irrevocable Credit, Cash, Certificate of Deposit assigned to the County or official bank check deposited with the county. (Amount is 125% of estimated cost of materials and installation of the stormwater system.

OPERATION AND MAINTENANCE MANUAL

- _____ Narrative describing each measure and its design specifications
- _____ Annual inspection requirements
- _____ Operation and maintenance required for each measure
- _____ Outline steps needed to restore measures in the event of a failure
- _____ Proposed Operation & Maintenance Agreement (To be recorded)