

Meade County  
Storm Water Management  
And Water Quality  
Ordinance No.52

## Definitions

**Best Management Practices (BMPs)** - Activities, facilities, designs, measures or procedures used to manage stormwater impacts from Regulated Activities, to meet State Water Quality Requirements, to promote groundwater recharge and to otherwise meet the purposes of this Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: “non-structural” or “structural”. “Non-structural” BMPs are measures referred to as operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff whereas “structural” BMPs are measures that consist of a physical device or practice that is installed to capture and treat stormwater runoff. “Structural” BMPs include, but are not limited to, a wide variety of practices and devices, from large-scale retention ponds and constructed wetlands, to small-scale underground treatment systems, infiltration facilities, filter strips, low impact design, bioretention, wet ponds, permeable paving, grassed swales, riparian or forested buffers, sand filters, detention basins, and manufactured devices. “Structural” stormwater BMPs are permanent appurtenances to the project site.

**Conveyance System** - Drainage facilities and features that collect, contain, and provide for the flow of surface and storm water from the highest points on the land down to a receiving water. Conveyance systems are made up of natural elements and of constructed facilities.

**Culvert** - Pipe or concrete box structure which drains open channels, swales, or ditches under a roadway or embankment typically with no catch basins or manholes along its length.

**Detention Basin** - A stormwater detention basin (or pond) is used to collect and temporarily store stormwater, while releasing a lesser amount with the intent of lowering the risk of flooding downstream.

**Detention Volume** - The volume of the detention pond is calculated by comparing the pre- and post-development runoff volumes. The difference is the detention volume.

**Drainage Easement** - A right granted by a landowner to a grantee, allowing the use of private land for stormwater management, drainage, or conveyance purposes.

**Drainageway** - Any natural or artificial watercourse, trench, ditch, pipe, swale, channel, or similar depression into which surface water flows.

**Earth Disturbance Activity** - A construction or other human activity which disturbs the surface of the land, including, but not limited to, clearing and grubbing, grading, excavations, embankments, land development, building, timber harvesting activities, road building or maintenance activities, mineral extraction, and the moving, depositing, stockpiling, or storing of soil, rock or earth materials. Agricultural activities that are classified agricultural by Meade County Equalization are exempt.

**Earth Disturbance Permit** - For Earth Disturbance Activities of greater than 1.0 acres for subdivisions development, commercial development or 1 acre or greater where surface and subsurface soils are disturbed from their natural state.

**Erosion** - The wearing down or washing away of the soil and land surface by the action of water, wind or ice.

**Erosion and Sediment Control Plan** - A plan which is designed to minimize accelerated erosion and sedimentation.

**HEC-RAS** - A software that models the hydraulics characteristics of water flow through natural rivers and other channels. It is designed to perform one-dimensional and two-dimensional hydraulic calculations.

**HEC-HMS** -The Hydrologic Modeling System software designed to simulate the complete hydrologic processes of dendritic watershed systems for evaluation of the hydrology.

**Open Channel** - A drainage element in which stormwater flows with an open surface. Open channels include, but shall not be limited to, natural and man-made drainageways, swales, streams, ditches, canals, and pipes not under pressure.

**Outfall** – A point where water flows from a conduit, stream, or drain.

**Peak Flow or Discharge** - The maximum rate of stormwater runoff from a specific storm event.

**Professional Engineer** – A engineer that is licensed in South Dakota that is in good standing with the South Dakota Board of Technical Professionals.

**Rational Method** - The rational method is a simple technique for estimating a design discharge from a small watersheds or basins of 120 acres or less.

**Regulated Activities** - Any earth disturbance activities or any activities that involve the alteration or development of land in a manner that may affect stormwater runoff. “Regulated Activities” include, but are not limited to, the following listed items:

- A. Earth Disturbance Activities
- B. Land Development - surface grading
- C. Construction of a new Subdivision
- D. Construction of new or additional impervious or semi-pervious surfaces
- E. Construction of new structures or additions to existing buildings.
- F. Diversion or piping of any natural or man-made stream channel
- G. Installation of stormwater management facilities or appurtenances thereto
- H. Installation of stormwater BMPs

**Release Rate** - The percentage of pre-development peak rate of runoff from a site or sub-watershed area to which the post-development peak rate of runoff must be reduced to protect downstream areas.

**Retention Basin** - An impoundment in which stormwater is stored and not released during the storm event. Stored water may be released from the basin at some time after the end of the storm.

**Retention Volume/Removed Runoff** - The volume of runoff that is captured and not released directly into the surface Waters of this State during or after a storm event.

**Runoff** - Any part of precipitation that flows over the land surface, including snow melt.

**Sediment Basin** - A barrier, dam, retention or detention basin, metering pond located and designed to retain rock, sand, gravel, silt, or other material transported by stormwater runoff.

**Sediment Pollution** - The placement, discharge, or any other introduction of sediment into Waters of the State occurring from the failure to properly design, construct, implement or maintain control measures and control facilities in accordance with the requirements of this Ordinance.

**Sedimentation** - The process by which mineral or organic matter is accumulated or deposited by the movement of water.

**Sheet Flow** - Runoff that flows over the ground surface as a thin, even layer, not concentrated in a channel.

**Spillway (Emergency)** - A depression in the embankment of a pond or basin, or another overflow structure, that is used to pass peak discharges greater than the maximum design storm controlled by the pond or basin.

**Stormwater** - Drainage runoff from the surface of the land resulting from precipitation, snow, or ice melt.

**Stormwater Permit** – Permit required for construction of structures, wastewater systems, lot clearing, etc. where the surface and subsurface soils are disturbed from their natural state applicable to 0.5 to less than 1 acre lots or tracts.

**Storm Flow Analysis** - The engineer may use the Rational Method for basins less than 120 acres, or the computer programs WinTR-55, HEC- HMS or SWMM for basins larger or smaller than 120 acres. Other professionally accepted hydrologic models may be used.

**Stormwater Management (SWM) Facilities** - facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality of the discharge.

## **Section 1- Stormwater Management Purpose**

### **1.1 Applicability**

- a) The County, in compliance with their Stormwater Management Plan and NPDES (National Pollutant Discharge Elimination System), requires an ordinance to minimize stormwater pollution from all activities including any construction activities within unincorporated boundaries of the county. All agricultural properties used for Ag use only as defined by Meade County's tax classification, are exempted from permitting in this ordinance for Ag purposes only.
- b) This ordinance applies to construction, mining and other earth disturbance activities within the unincorporated boundaries of Meade County in compliance with the Meade County's Stormwater Management Plan, and the State NPDES requirements. Implementation of the recommended measures does not ensure compliance with federal, state, and local laws, regulations and ordinances. The burden of compliance rests solely with the owner and developer of each project.

## **Section 2 – Earth Disturbance Activities for construction of structures where surface soils are disturbed greater than 0.5 acres and less than one acre.**

- 2.1 Earth Disturbance Activities greater than 0.5 acre but less than 1.0 acre requires a county stormwater permit before disturbing surface or subsurface soils such as foundation excavation, wastewater systems excavation, lot clearing, etc. Properties classified as agricultural properties by the Equalization Department are exempt for Ag activities. The cost of the Permit is set by Resolution of the Meade County Commission, see Section 7.
- a) For all types of earth disturbance activities, erosion and sediment control BMPs shall be designed, implemented, operated, and maintained during the Earth Disturbance Activities (e.g., during and post construction) to meet the purposes and requirements of this Ordinance.
  - b) If diffused flow is proposed to be concentrated and discharged onto an adjacent property, the Applicant must document that adequate downstream conveyance facilities exist to safely transport the concentrated discharge, or otherwise prove that no erosion, sedimentation, flooding, or other harm will result from the concentrated discharge.
    - i) The Applicant must provide an easement for proposed concentrated flow across adjacent properties.
    - ii) Stormwater drainage systems shall be provided in order to permit unimpeded flow along natural watercourses, except as modified by stormwater management facilities or open channels consistent with this Ordinance.
- 2.2 Other requirements of the applicant.
- a) For all Construction activities within the unincorporated area of Meade County that contain or are adjacent to drainage ditches or a stream, the applicant shall prepare and implement an approved SWM (Stormwater Management Site Plan), which must be approved by Meade County Equalization and Planning Department before any work begins on site. No earth disturbance activities shall commence until the county approves the SWM Site Plan, which demonstrates compliance with the requirements of this ordinance.
  - b) For all regulated activities, stormwater BMPs shall be installed, implemented, operated, and maintained pre-construction, during construction and post-construction to meet the purposes and requirements of this ordinance.
  - c) The county may, after consultation with SDDENR (South Dakota Department of Environment and Natural Resources), approve measures for meeting the South Dakota Stormwater Requirements other than those in this ordinance, provided that they meet the minimum requirements of, and do not conflict with state law.

### **Section 3 - Guidelines for Earth Disturbance Activities greater than 1 acre.**

Earth Disturbance Activities of greater than 1.0 acre require a county Earth Disturbance permit before disturbing surface or subsurface soils which shall be prepared by a Professional Engineer accompanied by supporting documentation such as reports and modeling information unless waived by the Planning Board and approved by the Commission. Applicable to subdivisions and commercial developments greater than one acre. Also, the South Dakota Department of Environment and Natural Resources requires a state permit.

- 3.1 Stormwater shall not be transferred from one watershed to another, unless;
  - (a) the effect of the transfer does not alter the peak rate discharge onto adjacent lands; or must be proven by the Applicant.
  - (b) easements from the affected landowner(s) are provided which must be proven by the Applicant.
- 3.2 Consideration shall be given to the relationship of the subject property to the drainage pattern of the watershed. A concentrated discharge of stormwater to an adjacent property shall be within an existing watercourse or confined in an easement or returned to a pre-development flow type condition. In any case, flow should not be released from the subject site prior to the reduction of peak flows to predeveloped condition.
- 3.3 Stormwater BMPs and recharge facilities are encouraged (e.g., rooftop storage, drywells, cisterns, recreation area ponding, diversion structures, porous pavements holding tanks, infiltration systems, in-line storage in storm sewers, and grading patterns). The stormwater BMPs shall be located, designed, and constructed in accordance with the latest technical guidance, provided they are accompanied by detailed plans and performance capabilities and supporting site specific soils, geology, runoff and groundwater and infiltration rate data to verify proposed designs.
- 3.4 All existing and natural watercourses, channels, drainage systems and areas of surface water concentration shall be maintained in their existing or an improved condition unless an alteration is approved by the county and/or the appropriate regulatory agency.
- 3.5 The design of all stormwater conveyance systems and management facilities shall incorporate sound engineering principles and practices by a Professional Engineer for a 2, 10 and 100-year storm events. Major Drainages must be modeled with a professional industry standard model for Peak Flow using acceptable hydraulic methods. Roads or streets crossing major drainages must be designed for a Peak Flow for a 25-year rain event for local and collector roads and a 50-year rain event for an arterial road, (See Meade County Transportation Plan for "Road Classifications").
- 3.6 For drainage basins the following are required:
  - a) Any submittal requiring FEMA approval must follow FEMA guidelines.
  - b) Modeling must be conducted by a qualified and experienced Professional Engineer.
  - c) Post-development discharge rate shall not exceed pre-development discharge rate.
- 3.7 Reports prepared by a licensed Professional Engineer and shall outline all assumptions and justify land use, land cover, coefficient determination for hydrologic and hydraulic calculations.
- 3.8 Requirements under the subdivision ordinance, Ordinance No. 20 for drainage studies must follow the requirements of this ordinance.

- 3.9 Development of a new or expansion of a commercial property greater than one acre must follow the requirements of this ordinance.

### **3-1 - Drainage Easements**

- 3.1.1 Easements shall be established for all on-site stormwater management or drainage facilities, including but not limited to: detention facilities (above or below ground), infiltration facilities, all stormwater BMPs, drainage swales, and drainage facilities (inlets, manholes, pipes, etc.).
- 3.1.2 Easements shall provide ingress to, and egress from, a public right-of-way. In lieu of providing an easement to the public right-of-way, a note may be added to the plan granting the County or their designees access to all easements via the nearest public right-of-way able for vehicle ingress and egress on grades of less than 10% for carrying out inspection activities.
- 3.1.3 Nothing shall be built, planted or placed within the easement which would adversely affect the function of the easement, or conflict with any conditions associated with such easement.

### **3-2 - Maintenance Agreement for Privately Owned Stormwater Facilities**

- 3.2.1 Prior to final approval, the Applicant shall submit and sign an Operation and Maintenance (O&M) Agreement covering all stormwater control facilities that are to be privately owned. The Operation and Maintenance (O&M) Agreement shall be prepared by a Professional Engineer and a copy shall be filed with the County.
- 3.2.2 The owner is responsible for operation and maintenance of the stormwater BMPs.

### **3-3 - Right-of-Entry**

- 3.3.1 Upon presentation of proper credentials, duly authorized representatives of Meade County may enter at reasonable times, upon any property within Meade County, to inspect the implementation, condition, or operations and maintenance of the stormwater BMPs in regard to any aspect governed by this Ordinance.
- 3.3.2 Stormwater BMP owners and operators shall allow persons working on behalf of the County ready access to all parts of the premises for the purposes of determining compliance with this Ordinance.
- 3.3.3 Unreasonable delay in allowing the County access to a stormwater BMP is a violation of this Ordinance.

### **3-4 - Stormwater Facility Discharges**

- 3.4.1 Stormwater facilities shall be required and designed so that runoff exits the site such that flows will not increase flood damage to adjacent property.
- a) Concentrated discharges from new developments must enter conveyance systems capable of carrying the design flow rate without increasing flood damages or maintenance costs downstream.

- b) Proposed or designed runoff points of concentrated discharge which would impact another subdivision or a municipality, the receiving water must be approved by the subdivisions H.O.A, Road, Sanitary or water District and/or the municipality.

### **3-5 - Release Rate**

- 3.5.1 Sufficient excess runoff / flood storage volume shall be provided so that the proposed project will not discharge at a rate greater than the pre-development discharge rate for a rainfall event with a 2, 10 and 100-year recurrence frequency.

## **Section 4 - Site drainage and stormwater - water quality management**

County requirements to ensure site surface and subsurface drainage:

- 4.1 Position the structure a minimum of 12 to 18 inches above street level when possible.
- 4.2 It is prohibited to fill or divert any existing drainage channels and roadside ditch, which could result in flooding problems on someone else's property and/or damage to adjacent road surfaces. Any work in the road right of way or a drainage channel requires a Permit from the Highway Department or Road District and is subject to inspection and approval by the County or the Road District.
- 4.3 Select and install erosion/sediment control practices including but not limited to vegetative filter strips, silt fence, gravel drives, and runoff inlet protection.
- 4.4 Before any earth disturbance activities begin, identify the areas where sediment-laden runoff could leave the construction site, and install perimeter controls to minimize the potential for off-site sedimentation.
- 4.5 Use silt fences along the perimeter of the lot's downslope side(s) to trap sediment. *(See Stormwater and Water Quality Guide)*.
- 4.6 Any site access must be graveled or paved and is required BEFORE construction vehicles will enter and exit the site.
- 4.7 Storm sewer curb inlets shall be protected with stone-filled or gravel-filled geotextile bags or equivalent measures before disturbing soil. *(See Stormwater and Water Quality Guide)*
- 4.8 Storm sewer drop inlets shall be protected with silt fence material, straw bales, or equivalent measures before disturbing soil.
- 4.9 Immediately after stockpiling soil, gravel or rock, place sediment barriers around the perimeter of the piles.



- 4.10 Maintain all erosion and sediment control practices until construction is completed and until the construction site is stabilized.
- 4.11 Once the sod and/or vegetation is well established, remove any remaining temporary erosion and sediment control practices.

## **Section 5 - Inspections**

- 5.1 The county will strive to ensure compliance with any permits issued, including those for stormwater management; the county may inspect all phases of the installation of temporary or permanent stormwater management BMPs or facilities.
- 5.2 During any stage of earth disturbance activities, if the county determines that the stormwater management controls are not being installed in accordance with the approved SWM Site Plan, the county may fine any existing permits holders until a revised SWM Site Plan is submitted and approved as specified in this ordinance.
- 5.3 Stormwater BMPs shall be inspected by the landowner or the landowner's designee according to the SWM Site Plan for each BMP.

## **Section 6 – Illicit (Prohibited) Discharges**

- 6.1 Any drain (including indoor drains and sinks), or conveyance whether on the surface or underground, that allows any non-stormwater discharge including sewage, process wastewater, toxic or hazardous pollutants to enter the storm sewer system (ditches) or waters of the state is prohibited.
- 6.2 The following discharges are authorized unless they are determined to be significant contributors to pollution to the waters of the state:
  - a) Potable water sources including de-chlorinated water;
  - b) Air conditioning condensate;
  - c) Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used;
  - d) Water from sump pumps;
  - e) Uncontaminated water from foundations or from footing drains;
  - f) De-chlorinated swimming pool discharges;
  - g) Water from individual residential car washing;
  - h) Routine external building wash-down (which does not use detergents or other compounds).
- 6.3 In the event that the county determines that any of the discharges identified as a significant contributor to pollution to the waters of the State, the responsible person(s) shall be notified to cease the discharge. Upon notice provided by the county, the discharger will have a reasonable time, as determined by the county, to cease the discharge.
- 6.4 Nothing in this Section shall affect a discharger's responsibilities under County, State or Federal Law.

## 6.5 Drains

- a) Roof drains and sump pumps shall discharge to infiltration areas, vegetative BMPs, or pervious areas to the maximum extent practicable.

## 6.6 Alteration of BMPs

- a) During construction, no person shall modify, remove, fill, landscape, or alter any existing stormwater BMP, facilities, areas, or structures unless it is part of an approved maintenance program, without the written approval of the county.
- b) During construction no person shall place any structure, fill, landscaping, or vegetation into a stormwater BMP, facilities, areas, structures, or within a drainage easement which would limit or alter the functioning of the BMP without the written approval of the county.

## 6.7 The following examples of discharges are prohibited, (Illicit Discharges)

- a) Wash out water from concrete trucks within 150 feet of a stream, ditch or storm sewer;
- b) Wash out water from carpet cleaning services;
- c) Petroleum pollutants or water containing petroleum products;
- d) Water containing chemicals or detergents;
- e) Other discharges that would cause pollution to surface water or groundwater.

## Section 7 – Fees

- 7.1 The fees required by this ordinance, the Earth Disturbance Permit Fee and County Stormwater Permit Fee. The County Stormwater Permit Fee and Earth Disturbance Permit Fee shall be established by Resolution of the Commission to defray administrative and inspection costs incurred by the County. The Applicant shall pay all fees.

## Section 8 – Enforcement

The Commission or their designee is hereby authorized and directed to enforce all of the provisions of this ordinance.

- 8.1 In the event that a person fails to comply with the requirements of this Ordinance, an approved SWM Site Plan, or fails to conform to the requirements of any permit or approval issued hereunder, the County shall provide written notification of the violation. Such notification shall set forth the nature of the violation(s) and establish a time limit for correction of these violation(s).
- 8.2 Failure to comply within the time specified shall subject such person to the penalty provisions of this ordinance. All such penalties shall be deemed cumulative and shall not prevent the county from pursuing any and all other remedies. It shall be the responsibility of the owner of the real property on

which any regulated activity is proposed to occur, is occurring, or has occurred, to comply with the terms and conditions of this ordinance.

### 8.3 Penalties

- a) In addition to other remedies set forth in this ordinance, violation of this ordinance may be punishable by (30) days imprisonment in a county jail or a \$500.00 fine, or both; each day in violation may be deemed a separate offense.
- b) The provisions of this ordinance shall be administered and enforced by a County Ordinance Enforcement Officer appointed by the Commission, who shall have the power to make inspections of BMPs and stormwater conveyance systems/facilities necessary to carry out duties in enforcement of the ordinance;
- c) The County Ordinance Enforcement Officer shall have the power to appoint deputies to assist in duties, such deputies to be approved by the Commission;
- d) The County Ordinance Enforcement Officer, and any deputies appointed, shall have authority to issue an ordinance violation notice which shall specify, in addition to other information at the discretion of such officer, the following:
  - i. the date of violation;
  - ii. the nature of violation;
  - iii. the amount of fine associated with the violation;
  - iv. the date the individual is required to appear in court unless the designated fine is paid prior thereto; and
  - v. the signature, or noted refusal to sign, of the violator.

An ordinance violation notice issued under authority of this ordinance shall be enforced as a proceeding before a magistrate court.

## Section 9 – Severability and Separability

- 9.1 Should any Article, Section, Sub-section or Provision of these ordinance regulations be declared by a court of competent jurisdiction to be invalid or unconstitutional, such decision shall not affect the validity or constitutionality of the Stormwater Management Ordinance as a whole or any part thereof other than the part so declared to be invalid or unconstitutional.

**Section 10 – Regulations Approval and Effective Date:**

10.1 The revisions to the Stormwater Management Ordinance No. 52 shall take effect and be in force from and after (20) days from the date of completed publication. Subdivision regulations heretofore adopted are hereby repealed. Adopted this 10th day of December, 2019;

Dated at Sturgis, South Dakota, this 10th day of December, 2019

Chair Ted Seaman: *Ted Seaman*  
Meade County Commissioner

Attested: *Lisa Schupp*  
Meade County Auditor

First Reading: 11-26-2019 Second Reading: 12-10-2019 Adoption: 12-10-2019  
Published Dates: August 5<sup>th</sup> & 12<sup>th</sup>; December 18<sup>th</sup> & 24 Effective Date: 01-13-2020

