

**ORDINANCE 3, 2012**

**AN ORDINANCE AMENDING ORDINANCE NO. 10B, 2004  
THE TOWN OF MOORESVILLE  
STORMWATER MANAGEMENT AND EROSION CONTROL ORDINANCE**

**WHEREAS**, the Town Council of Mooresville, Indiana, ("Town Council") is the executive and legislative body of Mooresville, Indiana;

**WHEREAS**, it is necessary to establish stormwater management requirements and controls in Mooresville to protect and safeguard the general health, safety, and welfare of the public, and so that Mooresville may comply with all requirements of 327 IAC 15-13;

**WHEREAS**, the Town Council have the authority to adopt a Stormwater Management Ordinance pursuant to I.C. 36-1-3; and,

**WHEREAS**, the Town Council having considered the proposed Mooresville Stormwater Management Ordinance and heard public comment, deem it appropriate that the Mooresville Stormwater Management Ordinance be adopted.

**BE IT THEREFORE ORDAINED** by the Town Council of Mooresville Indiana, as follows:

1. The Mooresville Stormwater Management Ordinance which is attached hereto and made a part hereof is hereby adopted.

2. The Mooresville Stormwater Management Ordinance shall be effective upon publication, as required under I.C. 36-2-4-8.

3. The Mooresville Stormwater Management Ordinance shall be printed as a separate book and two (2) copies of the book shall be filed with the Mooresville Clerk Treasurer and such additional copies shall be maintained for sale to the public by the Mooresville Clerk Treasurer, the Mooresville Planning Department or such other agency deemed appropriate.

4. This Ordinance repeals Ordinance 10B, 2004.

APPROVED this \_\_\_\_\_ day of January, 2012.

**MOORESVILLE TOWN COUNCIL**

\_\_\_\_\_  
Jeffrey M. Cook

\_\_\_\_\_  
Anthony Langley

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Mark Mathis

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Virginia L. Perry

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George Watkins

Attest:

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Sandra Perry, Clerk-Treasurer

**THE TOWN OF MOORESVILLE**  
**STORMWATER MANAGEMENT AND EROSION CONTROL ORDINANCE**

**1.0 Introduction**

1.1 Findings

- 1.1.1 Water bodies, roadways, structures, and other property within, and downstream of Mooresville are at times subjected to flooding;
- 1.1.2 Flooding is a danger to the lives and property of the public and is also a danger to the natural resources of Mooresville and the region;
- 1.1.3 Land development alters the hydrologic response of watersheds, resulting in increased stormwater runoff rates and volumes, flooding, stream channel erosion, and sediment transport and deposition;
- 1.1.4 Stormwater runoff produced by land development contributes to increased quantities of water-borne pollutants;
- 1.1.5 Stormwater runoff, soil erosion, and non-point source pollution, due to land development within Mooresville, have resulted in the deterioration of the water resources of Mooresville and downstream municipalities. Increased stormwater runoff rates and volumes, and the sediments and pollutants associated with stormwater runoff from development projects within Mooresville may, absent reasonable regulation and control, adversely affect Mooresville's water bodies and water resources, and those of downstream municipalities;
- 1.1.6 Stormwater runoff, soil erosion, and non-point source pollution can be controlled and/or minimized by the regulation and management of stormwater runoff from development;

- 1.1.7 Adopting the standards, criteria and procedures contained in this Ordinance and implementing the same will address many of the detrimental effects of stormwater runoff;
- 1.1.8 Adopting these standards is necessary for the preservation of the soils and topography of Mooresville as well as the public health, safety and welfare; and,
- 1.1.9 Mooresville has the authority to adopt a Stormwater Management Ordinance pursuant to I.C. 36-1-3 and so that Mooresville may comply with all requirements of 327 IAC 15-13.

## 1.2 Purpose

It is the purpose of this Ordinance to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public. This Ordinance seeks to accomplish, among others, the following objectives:

- 1.2.1 To reduce flood damage;
- 1.2.2 To mitigate increased stormwater runoff rates and volumes from identified new land development;
- 1.2.3 To minimize the deterioration of existing watercourses, culverts and bridges, and other structures associated with stormwater conveyance;
- 1.2.4 To encourage water recharge into the ground where geologically favorable conditions exist;
- 1.2.5 To prevent an increase in non-point source pollution;
- 1.2.6 To maintain the integrity of stream channels for biological functions, as well as for drainage and other purposes;
- 1.2.7 To minimize the impact of development upon stream bank and stream bed stability;

- 1.2.8 To reduce erosion and off-site sedimentation from development or construction projects;
- 1.2.9 To preserve and protect water supply facilities and water resources by means of controlling increased flood discharges, stream erosion, and runoff pollution;
- 1.2.10 To reduce stormwater runoff rates and volumes, soil erosion, and non-point source pollution, wherever practicable, from lands that were developed without stormwater management controls meeting the purposes and standards of this Ordinance as well as future developments;
- 1.2.11 To implement the minimum standards established in this Ordinance to protect water bodies from degradation resulting from changing land use where there are insufficient stormwater management controls;
- 1.2.12 To protect adjoining property owners from detrimental impacts caused by changing land use and/or drainage;
- 1.2.13 To ensure that mineral extraction is carried out without adverse impact on water bodies or nearby landowners; and,
- 1.2.14 To comply with the standards set forth in 327 IAC 15-13.

### 1.3 Applicability, Exemptions and General Provisions

This Ordinance shall apply to any development within the incorporated boundaries of Mooresville within the jurisdiction of this Ordinance which will alter stormwater drainage characteristics of the disturbed land or development site, provided, however, that this Ordinance shall not apply to the following:

- 1.3.1 The installation or removal of individual mobile homes within a mobile home park. This exemption shall not be construed to apply to the construction, expansion, or modification of a mobile home park,

- 1.3.2 Plats with preliminary plat approval and other developments with final land use approval prior to the effective date of this Ordinance, where such approvals remain in effect,
- 1.3.3 Building additions where the total increase in impervious area including parking lots, sidewalks, etc., is less than ten thousand (10,000) square feet except where the Stormwater Office Stormwater Office has identified flooding concerns.
- 1.3.4 Single Family Homes that are not a part of a larger development (greater than four (4) homes) and disturb less than ten thousand (10,000) square feet.

#### 1.4 Variances

A variance from any or all requirements of this Ordinance may be granted by the specific approval of the Stormwater Office. No variance shall be approved that would ultimately result in failure by the Stormwater Office to meet the requirements of any Federal or State law. Variance requests that are denied will list how it diminishes the protective standards from human health or the environment set forth by the Ordinance. A denied variance may be appealed to the Mooresville Drainage Board (Board) within sixty (60) days of receipt of the denial. Requests for variance from the requirements of this Ordinance must be in written form, addressed to the Stormwater Office and demonstrate the following:

- 1.4.1 Specify the provision(s) of this Ordinance and/or the provision(s) of the Stormwater Design Manual from which the variance is requested,
- 1.4.2 Clearly state the reason for the variance request and why the conditions of this Ordinance cannot be met,
- 1.4.3 Describe how the requested variance does not diminish the protective standards for human health or the environment set forth by the Ordinance.

#### 1.5 Compatibility with Other Permit and Ordinance Requirements

This Ordinance is not intended to interfere with or annul any other Ordinance, rule or regulation, statute, or other provision of law. The requirements of this Ordinance should be considered minimum requirements, and where any provision of this Ordinance imposes restrictions different from those imposed by any other Ordinance, rule or regulation, or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence.

#### 1.6 Severability

If the provisions of any article, section, subsection, paragraph, subdivision or clause of this Ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any article, section, subsection, and paragraph.

#### 1.7 Fees

The fee schedule shall be as established by Ordinance 3, 2012.

A fee of Twenty-Five Dollars (\$25.00) shall be charged to cover the costs of labor, materials, and equipment used in photocopying this Ordinance and the Mooresville Stormwater Design Manual.

#### 1.8 Development of a Stormwater Design Manual

The Board has furnished additional policy, criteria and information including specifications and standards, for the proper implementation of the requirements of this Ordinance in the form of a Mooresville Stormwater Design Manual.

This manual includes details of acceptable stormwater management and treatment practices, including specific design criteria for each stormwater practice. The manual may be updated and expanded as necessary and needed from time to time by the Stormwater Office, subject to approval by the Board, based on improvements in engineering, science, monitoring and local maintenance experience. Stormwater treatment practices that are designed and constructed in accordance with the design and sizing criteria will be

presumed to meet the minimum water quality and quantity performance standards.

## **2.0 Definitions**

- (1) Base Flood - A flood having a one (1) percent probability of being equaled or exceeded in any given year (also referred to as the 100-year flood).
- (2) Base Flood Elevation (BFE) - The height of the Base Flood in relation to the National Geodetic Vertical Datum (NGVD) of 1929; commonly referred to as the "100-year flood elevation".
- (3) Base Flood Plain - The area inundated by the Base Flood.
- (4) Best Management Practice or "BMP" - Any structural or nonstructural control measure utilized to improve the quality and, as appropriate, reduce the storm water runoff rate. The term includes schedules of activities, prohibitions of practice, treatment requirements, operation and maintenance procedures, use of containment facilities, land use planning, policy techniques, and other practices that comply with Mooresville's Stormwater Design Manual.
- (5) Board - The Mooresville Town Council
- (6) Building - An enclosed structure constructed or erected partially or wholly above ground. The term "building" includes both the above-ground and the below-ground portions of the structure.
- (7) Building Opening - Any opening of a solid wall such as a window or door, through which floodwaters could penetrate.
- (8) Certifies Survey for Mineral Extraction - A certified survey demonstrating the number and proximity of residences located within the closest and most densely populated quarter mile adjacent to the proposed mineral extraction site.
- (9) Certify - A statement that a proposed development meets the requirements of the Mooresville Stormwater Management Ordinance.
- (10) Channel - A conveyance intended to carry runoff such as a swale or ditch.

- (11) Clean Water Act - The Federal Water Pollution Control Act, 33 USC Sec 1251 et seq., as amended, and the applicable regulations promulgated thereunder.
- (12) CLOMR - A conditional Letter of Map Revision. A letter that indicates that FEMA will revise base flood elevations, flood insurance rate zones, flood boundaries, or floodways as shown on an effective FIRM or FBFM, after the as-built or record drawings confirming the proposed conditions are submitted and approved.
- (13) CLOMR-F - A Conditional Letter of Map Revision Based on Fill. A letter that indicates that FEMA will revise the base flood boundaries as shown on an effective FIRM. This letter does not apply to map revisions involving BFE or floodway delineation changes.
- (14) Construction Site Stormwater Runoff - Stormwater runoff from a development site following a land alteration.
- (15) Conveyance - Any pipe, swale, ditch, etc. intended to carry stormwater from one point to another.
- (16) Culvert - A closed conduit such as a pipe designed for the conveyance of surface drainage water under a roadway, railroad, embankment or other impediment. (See also Pipe System)
- (17) Detention - A system which is designed to capture stormwater, store it and release it over a given period of time through an outlet structure at a controlled rate.
- (18) Detention Facility - A manmade structure for the temporary storage of stormwater runoff with a controlled release during or immediately following a storm.
- (19) Developed or Development - A land alteration that requires, pursuant to state law or local ordinance, the approval of a site plan, plat, special land use, planned unit development, rezoning of land, land division approval, private road approval or other approvals required for the construction of land or the erection of buildings or structures; provided, however, that for purposes of this Ordinance only, developed or development shall not include the actual construction of, or an addition, extension or modification to, an individual single-family or a two-family detached dwelling.

- (20) Developer - Any person proposing or implementing the development of land.
- (21) Development Site - Any land that is being or has been developed, or that a developer proposes for development.
- (22) Discharger - Any person who directly or indirectly discharges stormwater from any property. Discharger also means any employee, officer, director, partner, contractor, or other person who participates in, or is legally or factually responsible for, any act or omission that is or results in a violation of this Ordinance.
- (23) Ditch - An earthen conveyance with side slopes steeper than 5:1 or carrying greater than ten (10) cubic feet per second.
- (24) Drain - A buried slotted or perforated pipe or other conduit (subsurface drain) or a ditch (open drain) for carrying off surplus groundwater or surface water.
- (25) Drainage - The collection, conveyance, or discharge of ground water and/or surface water.
- (26) Drainage Facilities - All ditches, channels, conduits, retention-detention systems, tiles, swales, sewers, and other natural or artificial means of draining stormwater from land.
- (27) Drainageway - The area within which surface water or ground water is carried from one part of a lot or parcel to another part of the lot or parcel or to adjacent land.
- (28) Easement - An authorization grant by a property owner for the use by another of any designated part of his property for a clearly specified purpose including but not limited to common pedestrian ways and hiking and biking paths.
- (29) Engineer - A person licensed to practice engineering in the State of Indiana.
- (30) EPA - The United States Environmental Protection Agency.
- (31) Erosion - The process by which the ground surface is worn away by action of wind, water, gravity or a combination thereof.

- (32) Erosion and Sediment Control Plan - A plan that is designed to minimize the accelerated erosion and sediment runoff at a site during construction activities.
- (33) Farm Operation - Means any of the following activities involved in carrying on a farm business:
- (a) growing, producing, raising or keeping animals or plants, including mushrooms, or the primary products of those plants or animals;
  - (b) clearing, draining, irrigating or cultivating land;
  - (c) using farm machinery, equipment, devices, materials and structures;
  - (d) applying fertilizers, manure, pesticides and biological control agents, including by ground and aerial spraying;
  - (e) conducting any other agricultural activity on, in or over agricultural land;
- and includes
- (f) intensively cultivating in plantations, any
    - (i) specialty wood crops, or
    - (ii) specialty fiber crops
  - (g) conducting turf production
  - (h) processing or direct marketing the products of a farm owned or operated by the farmer, as well as products not of that farm to the extent that the processing or marketing of those products is conducted on the farmer's farm;
- (34) FBFM - A Flood Boundary and Floodway Map. A floodplain management map issued by FEMA that depicts, based on detailed engineering analyses, the boundaries of the base or 100-year flood, the 500-year flood, and the floodway.
- (35) Federal Emergency Management Agency (FEMA) - The agency of the federal government charged with emergency management.

- (36) FIRM - A Flood Insurance Rate Map. A map issued by FEMA that is an official community map, on which FEMA has delineated both the special flood hazard areas and the insurance risk premium zones applicable to the community. This map may or may not include floodways.
- (37) Flood or Flooding - A general and temporary condition of partial or complete inundation of normally dry land areas resulting from the overflow of water bodies or the unusual and rapid accumulation of surface water runoff from any source.
- (38) Floodplain - Any land area subject to periodic flooding.
- (39) Flood-Proofing - Any structural and/or non-structural additions, changes, or adjustments to structures or property that reduce or eliminate flood damage to land, or improvements utilities and structures.
- (40) Flood Protection Elevation (FPE) or Flood Protection Grade (FPG) - The Base Flood Elevation plus two (2) foot at any given location.
- (41) Floodway - The channel of any watercourse and the adjacent land areas that must be reserved to carry and discharge a base flood without cumulatively increasing the water surface elevation more than one-tenth (1/10) of a foot due to the loss of flood conveyance or storage.
- (42) Grading - Any stripping, excavating, filling, and stockpiling of soil or any combination thereof and the land in its excavated or filled condition.
- (43) Gutter Spread - The spread of water on a roadway surface perpendicular from the face of the gutter into the driving lane.
- (44) IDEM - The Indiana Department of Environmental Management.
- (45) Illicit Connection - Any method or means for conveying an illicit discharge into water bodies or Mooresville's stormwater conveyance system.
- (46) Illicit Discharge - Any discharge to water bodies that does not consist entirely of stormwater, discharges pursuant to the terms of an NPDES permit, or exempted discharges as defined in this Ordinance.

- (47) Impervious Surface - Surface that does not allow stormwater runoff to percolate into the ground such as asphalt, concrete, roofs, and gravel.
- (48) Land Alteration - Any action taken relative to land which either:
- (a) Removes the natural ground cover;
  - (b) Changes the contour; or
  - (c) Increases the runoff rate; or
  - (d) Changes the elevation; or
  - (e) Decreases the rate at which water is absorbed; or
  - (f) Changes the drainage pattern; or
  - (g) Creates or changes a drainage facility; or
  - (h) Involves construction, enlargement or location of any building on a permanent foundation; or
  - (i) Creates an impoundment.

Land alteration includes (by way of example and not of limitation) terracing, grading, excavating, constructing earthwork, draining, installing drainage tile, filling and paving.

- (49) Land Surveyor - A person licensed to practice land surveying in the State of Indiana.
- (50) LOMA - A Letter of Map Amendment. The official determination by FEMA that a specific structure or lot is not within a regulatory floodplain due to naturally occurring high ground (i.e. without fill). A LOMA amends the effective FIRM.
- (51) LOMR - A Letter of Map Revision. A letter from FEMA that revises base flood elevations, flood insurance rate zones, flood boundaries, or floodways as shown on an effective FBFM or FIRM.
- (52) LOMR-F - A Letter of Map Revision Based on Fill. A letter that provides formal recognition by FEMA that either a parcel of property or a structure has been removed from the base or 100-year floodplain due to elevation based on

the placement of fill. This letter does not apply to map revisions involving BFE or floodway delineation changes.

- (53) Lowest Floor - The lowest floor or the lowest enclosed area (including a basement), but not including an unfinished or flood-proof enclosure that is usable solely for parking of vehicles or building access.
- (54) Maintenance - Cleaning, removing obstructions from and making minor repairs to a drainage facility so that it will perform the function for which it was designed and constructed.
- (55) Manufactured BMP - A structural BMP designed for stormwater quality treatment constructed of a combination of manmade materials at an off-site facility.
- (56) Mineral Extraction - The removal of oil, gas, coal, ore, gravel, sand, aggregate or other resources from below the surface of the land.
- (57) MS4 - Municipal Separate Storm Sewer System as defined by 327 IAC 15-13-5 section 5 (43).
- (58) NFIP - The National Flood Insurance Program. The requirements of the NFIP are codified in Title 44 of the Code of Federal Regulations.
- (59) Non-point Source Pollution - Pollution from any source other than from any discernible, confined, and discrete conveyances, and shall include, but not be limited to, pollutants from agricultural, silvicultural, mining, construction, subsurface disposal, dumping, and urban runoff sources.
- (60) Non-Stormwater Discharge - Any discharge to the storm drain system that is not composed entirely of storm water.
- (61) Non-structural BMP - A BMP that is not constructed by physical means of land disturbance such as education, public information handouts etc.
- (62) NPDES - National Pollutant Discharge Elimination System.
- (63) Overland flow-way - Surface area that conveys a concentrated flow of stormwater runoff.
- (64) Peak Storm - The storm of a specified return period that produces the maximum runoff from a site or the maximum

- elevation in a detention pond. Storm durations of 0.5-, 1-, 2-, 3-, 6-, 12- and 24-hours shall be used to determine the peak storm.
- (65) Perimeter Drain - A subsurface pipe network designed and installed around the perimeter of a septic field for the purpose of effectively collecting and draining away excess subsurface waters.
- (66) Person - An individual, firm, partnership, association, public or private corporation, public agency, instrumentality, or any other legal entity.
- (67) Pipe System - Two or more pipes connected together by one or more structures such as a manhole designed to convey stormwater runoff.
- (68) Plan - Written narratives, specifications, drawings, sketches, written standards, operating procedures, or any combination of these, which contain information pursuant to this Ordinance.
- (69) Pollutant - A substance which causes or contributes to pollution which includes, but is not limited to the following: any dredged soil, solid waste, vehicle fluids, yard wastes (includes grass clippings), animal wastes (includes pet waste), agricultural waste products, sediment, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological wastes, radioactive materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt, and industrial, municipal, commercial and agricultural waste, or any other contaminant or other substance defined as a pollutant under the Clean Water Act.
- (70) Pollution - The human-made or human-induced alteration of the quality of waters by waste to a degree which unreasonably affects, or has the potential to unreasonably affect, either the waters for beneficial uses or the facilities which serve these beneficial uses.
- (71) Property Owner - Any person having legal or equitable title to property, having a contractual interest in property, or any person having or exercising care, custody, or control over any property.
- (72) Reclamation Plan for Mineral Extraction - A document illustrating drainage patterns, both existing and proposed, at a mineral extraction site; proposed erosion control and off-site sedimentation control of the site;

and proposed final land use and post construction stormwater quality BMPs for the site, all of which are documented at the initial approval of the SWMP and at 10-year intervals following the approval of a SWMP.

- (73) Record Drawings - Drawings prepared, signed and sealed by a professional engineer or land surveyor representing the final "as-built" record of the actual in-place elevations, location of structures, and topography.
- (74) Registered Profession - An engineer, land surveyor or architect license under the laws of the State of Indiana to practice the respective profession.
- (75) Regulated Drain - A drain, either open channel or closed tile/sewer, subject to the provisions of the Indiana Drainage Code, I.C.-36-9-27.
- (76) Retention - A system that is designed to capture stormwater and contain it until it infiltrates into the soil or evaporates.
- (77) Right-of-way - A strip of land occupied or intended to be occupied by a street, pedestrian-way, hiking path, biking path, crosswalk, railroad, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer main, special landscaping, drainage, or for another special use. The usage of the term "right-of-way" for land platting purposes shall mean that every right-of-way hereafter established and shown on a final plat is to be separate and distinct from the lots or parcels adjoining such right-of-way and not included within the dimensions or areas of such lots or parcels. Rights-of-way intended for streets, crosswalks, water mains, sanitary sewers, storm drains, screening or special landscaping, or any other use involving maintenance by the Town Council shall be dedicated to public use by the subdivider on whose plat such right-of-way is established. All divisions of land along existing roadways shall dedicate half right of way for public purposes along its entire frontage in the amount as specified for the classification of the existing roadway.
- (78) Roadway drainage - The runoff and drainage located within 20 feet of the edge of public and/or private roadways adjacent to, abutting, or within the boundaries of the property to be addressed in a proposed Stormwater Management submittal.

- (79) Runoff - The waters derived from melting snow or rain falling within a tributary drainage basin that exceeds the infiltration capacity of the soils of that basin.
- (80) Soil Erosion - The stripping of soil and weathered rock from land creating sediment for transportation by water, wind or ice, and enabling formation of new sedimentary deposits.
- (81) Storm Drain - A system of open or enclosed conduits and appurtenant structures intended to convey or manage stormwater runoff, ground water and drainage.
- (82) Storm Drain System - Publicly owned facilities operated by the Town or easements on private property by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, ditches, swales, reservoirs and other drainage structures which are within the Town and are not part of a publicly owned treatment works as defined at 40 CFR Section 122.2.
- (83) Stormwater - Any surface flow, runoff, and drainage consisting entirely of water from rain storm events.
- (84) Stormwater Management Plan (SWMP) - An engineered drainage plan that effectively addresses and manages stormwater runoff and discharge.
- (85) Stormwater Management Plan Approval (SWMPA) - An approval issued pursuant to this Ordinance from the Stormwater Office that states all requirements of the Mooresville Stormwater Management Ordinance have been met.
- (86) Stormwater Office - The Town of Mooresville's Stormwater Department Office.
- (87) Stormwater Quality Management Plan - A comprehensive written document that addresses stormwater runoff quality within a municipal separate storm sewer system area.
- (88) Stormwater Runoff - The runoff and drainage of precipitation resulting from rainfall or snowmelt or other natural event or process.

- (89) Stormwater Runoff Facility - The method, structure, area, system, or other equipment or measures that are designed to receive, control, store, or convey stormwater.
- (90) Stream - A river, stream or creek which may or may not be serving as a drain, or any other water body that has definite banks, a bed, and visible evidence of a continued flow or continued occurrence of water.
- (91) Structural BMP - A structure designed and constructed for the purpose of stormwater quality treatment.
- (92) Swale - A depressed earthen designed to convey stormwater runoff with side slopes 5:1 or shallower and conveying no more than ten (10) cfs.
- (93) USACOE - The United States Army Corps of Engineers.
- (94) USEPA - The United States Environmental Protection Agency.
- (95) Water Body - A river, lake, stream, creek or other watercourse or wetlands.
- (96) Water Quality Volume (WQv) - The storage needed to capture and treat the volume of rainfall for ninety percent (90%) of the storm events which produce runoff in the watershed annually.
- (97) Watershed - A region draining into a water body.
- (98) Wetlands - Land characterized by the presence of water at a frequency and duration sufficient to support wetland vegetation or aquatic life.

### **3.0 Submission Requirements and Plan Approvals**

Any person or landowner who develops or engages in development activities on land or a development site subject to the provisions of this Ordinance must first obtain a Stormwater Management Plan Approval (SWMPA) from the Stormwater Office. A permit is obtained by first submitting a Stormwater Management Plan (SWMP) to the Stormwater Office, which shall include the following:

- 3.1 Complete set of plans including a title page with location and vicinity maps, existing and proposed condition plan sheets, construction details and erosion control plans all sealed by a registered professional. A plan and profile of the proposed drainage system

shall be provided. Individual sheets shall be required for existing topography, proposed topography, erosion control, plan and profiles, and details. All sheets shall be twenty-four (24) inches by thirty-six (36) inches.

- 3.2 Mineral Extraction operations seeking a SWMPA shall submit the following additional materials with their proposed Stormwater Management Plan (SWMP): a certified survey showing the number and proximity of residents within the adjoining area (per 312 IAC 2-3-2); a copy of the approved driveway permit with all transportation and drainage easements and right-of-ways granted by the applicant along public ways and waterways; and a reclamation plan. Any changes in a plan approved by the Stormwater Office must be submitted to the Stormwater Office and re-approved as a revision. Additional hourly review fees will be applicable to this revision review.
- 3.3 A drainage narrative describing the existing and proposed conditions and runoff patterns and complete documentation of all calculations and assumptions. This narrative shall be sealed by a registered professional.
- 3.4 All SWMP submittals must meet the requirements of this Ordinance and the provisions of the Stormwater Design Manual. A written narrative is required with the submittal stating that the drainage plans are in compliance with the provisions of this Ordinance and the Stormwater Design Manual.

The Stormwater Office may require such additional information to be included in a drainage plan that is necessary to evaluate and determine the adequacy of the proposed drainage and water quality facilities.

At such time as the Stormwater Office determines that all requirements of this Ordinance are met, a formal notice of approval (SWMPA) shall be issued by the Stormwater Office.

Any construction project holding a SWMPA, determined to be inconsistent with plans previously approved by the Stormwater Office may be subject to the articles of section 11 of this Ordinance (Enforcement). Any changes in a set of SWMP approved by the Stormwater Office must be submitted to the Stormwater Office and re-approved as a revision. Additional hourly review fees will be applicable to this revision review.

A SWMPA shall expire two (2) calendar years from the date of issuance. At expiration previously permitted development underway may continue construction activities under the terms of the original SWMPA. Previously approved development not underway at the time of expiration shall be required to obtain a new SWMPA per this Ordinance prior to the initiation of construction activities.

#### **4.0 Detention Requirements**

Detention shall be required for all proposed developments where the runoff rate from the proposed post-developed conditions shall increase when compared to the pre-developed conditions. In addition, detention may be required for any development in areas where downstream flooding has been identified by the Stormwater Office. The pre- and post-developed runoff rates shall be determined using methodologies specified in the Mooresville Stormwater Design Manual.

The following requirements shall be fulfilled for all detention facilities:

- 4.1 The runoff from the developed condition peak storm with a 100-year return period storm shall be limited to the runoff rate from the pre-developed condition peak storm with a 10-year return period storm.
- 4.2 The runoff from the developed condition peak storm with a 10-year return period storm shall be limited to the runoff rate from the pre-developed condition peak storm with a 2-year return period storm.
- 4.3 There shall be no increase in the runoff rate from the pre-developed conditions to the post-developed conditions for all storms at all discharge points along the property line.
- 4.4 An adequate downstream receiving facility shall be identified on the plans. There shall be no increase in erosion potential on the adjoining properties.
- 4.5 Earthen embankments, dams and/or berms designed and constructed to detain or impound stormwater shall be designed using criteria specified in the Mooresville Stormwater Design Manual.

## 5.0 Conveyance Requirements

Conveyance structures (outfalls, pipes, swales ditches, culverts, etc.) shall be designed in accordance to the Mooresville Stormwater Design Manual to fulfill the following requirements:

- 5.1 Outfalls - All proposed pipe outfalls shall have an adequate receiving facility identified on the plans. There shall be no increase in erosion and sedimentation on adjoining properties.
- 5.2 Pipe Systems - All pipe systems shall accommodate the 10-year storm event with the hydraulic gradeline in the crown of the pipe. In addition, an overflow route to the detention structure shall be provided for the flows resulting from storms with a return period greater than the 10-year. In situations where an overflow route to the detention structure cannot be created, the pipes shall be designed with the 100-year hydraulic gradeline runoff below the top of casting or provide an easement encompassing the 100-year inundated areas.
- 5.3 Inlets - Inlets shall be located to limit gutter spread during the 10-year storm event such that one lane, based on the roadway width, is open. Multi-lane roadways shall maintain one clear driving lane in both directions. Inlets shall have the capacity to accommodate the 10-year storm or the 100-year storm where overflow channels are not provided.
- 5.4 Culverts - Culverts under roadways designated as thoroughfares, arterials or that provides the only means of ingress and egress to developments, shall accommodate the 100-year flow to the culvert without overtopping the roadway.
- 5.5 Culverts under collector roadways (those roadways connected to designated thoroughfares and arterials) shall accommodate the 50-year flow to the culvert without overtopping the roadway.
- 5.6 All other roadway culverts shall accommodate the 25-year flow to the culvert without overtopping the roadway.
- 5.7 Driveway culverts shall accommodate the 10-year flow to the culvert without overtopping the driveway.
- 5.8 Lift Stations - Lift stations shall not be designed as part of a stormwater conveyance system. Proposed

stormwater lift stations will only be reviewed if complete documentation of no other reasonable option is provided. Stormwater lift stations will be approved on a case-by-case basis.

- 5.9 Swales - Swales shall be designed to accommodate the 10-year storm runoff within the proposed banks.
- 5.10 Ditches - Proposed ditches shall accommodate the 100-year runoff within the banks or a designated easement.
- 5.11 Perimeter Drain Collection - All residential development regulated by this Ordinance shall indicate on their plans an appropriately sized, common collection swale, ditch or subsurface pipe structure that provides a positive discharge, collects and effectively conveys perimeter drain discharge to an appropriate offsite outlet.

## **6.0 Emergency Access Easement Requirements**

Emergency Access Easements shall be provided to Mooresville as follows:

### **6.1 Detention Structures**

Detention structures serving drainage basins greater than ten thousand (10,000) sq. ft. or receiving runoff from off-site or being dedicated to the Town shall have an emergency access easement around the 100-year flood elevation. This emergency access easement shall include all release control devices. The minimum emergency access easement requirements for detention structures shall be designated in the Mooresville Stormwater Design Manual.

### **6.2 Conveyance Systems**

An emergency access easement shall be provided for all conveyance systems that will be accepted by the Town and/or be located adjacent to public or private roads or ways or lead to public conveyance systems located adjacent to public or private roads or ways, maintained by a homeowners association or receive off-site runoff. The minimum emergency access easement requirements for conveyance systems shall be designated in the Mooresville Stormwater Design Manual.

The owner of the property shall be responsible for maintenance of the property's drainage facilities. The granting of an emergency

access to Mooresville does not alter the property owner's duty to maintain the property's drainage facilities.

## **7.0 Flood Control and Management**

Water bodies, roadways, structures and other property in Mooresville are subjected to flooding. In order to help minimize the occurrence and impact of flooding resulting in the loss of life and/or property, the following are required:

FEMA Studied Waterways:

- 7.1 FEMA Floodway/Floodplain Delineation - All plans submitted shall have the floodway (FW) and floodplain (FP) delineated on the grading plan(s) as scaled from the FEMA Flood Insurance Rate Maps. A reference to the panel number and date of the map shall also be included. Where no FW is delineated, the entire floodplain shall be assumed to be the FW.
- 7.2 100-year Base Flood Elevation (BFE) - The 100-year BFE shall be noted on the grading plan(s). This BFE shall be determined using the Flood Insurance Study (FIS) and the appropriate plate. A note referencing the plate number and date shall be included on the plans.

Non-FEMA Studied Waterways (Greater Than 1 Square Mile Drainage Basin):

- 7.3 DNR Floodway/Floodplain Delineation - All plans shall have the FW and FP delineated as determined by the DNR. A note referencing the DNR determination and a copy of the DNR response letter shall be provided prior to approval by the Mooresville Drainage Board.

Basins Less Than 1 Square Mile in Area:

- 7.4 Floodplain delineation - All waterways with drainage basins less than one (1) square mile and greater than 25 acres shall have the 100-yr BFE determined by methods outlined in the Mooresville Stormwater Design Manual and delineated on the plans. Complete documentation of this determination shall be included with the submission.

No structures shall be located in a FEMA or DNR designated floodway. No structures shall be located within the floodplain of drainage basins less than one (1) square mile unless a floodway determination is conducted.

The lowest finished floor of all Structures located within a flood plain shall have a two (2) foot flood protection grade (FPG) with respect to the lowest floor of the structure.

## **8.0 Water Quality**

Water quality considerations shall be incorporated in the submitted SWMPs and specifications in accordance with the Mooresville Stormwater Design Manual to fulfill the following requirements:

8.1 Pretreatment Requirements - Every stormwater treatment practice shall have an acceptable form of water quality pretreatment, in accordance with the pretreatment requirements found in the current Mooresville Stormwater Design Manual. Stormwater infiltration practices, or practices having an infiltration component, as specified in the Mooresville Stormwater Design Manual, are prohibited, even with pretreatment, in the following circumstances:

8.1.1 Where stormwater is generated from highly contaminated source areas as identified by the IDEM, USEPA or the Stormwater Office;

8.1.2 Where stormwater is carried in a conveyance system that also carries contaminated, non-stormwater discharges;

8.1.3 Where stormwater is being managed in a designated groundwater recharge or well head protection area;

8.1.4 Under certain geologic conditions (e.g., karst) that prohibit the proper pretreatment of stormwater.

8.2 Treatment/Geometry Conditions - All stormwater management practices shall be designed to capture and treat stormwater runoff according to the specifications outlined in the Mooresville Stormwater Design Manual. These specifications will designate the water quality treatment and water quantity criteria that apply to an approved stormwater management practices.

## **9.0 Soil Erosion and Sedimentation Control**

Construction activities required as part of land development necessitate the removal of natural ground cover, creating the potential for erosion to occur. To minimize the movement of soil

off site and its impact on water quality and on the ability of stormwater facilities to continue functioning properly, the following are required:

- 9.1 All persons who cause, in whole or in part, any earth change to occur shall provide soil erosion and sedimentation control so as to adequately prevent soils from being eroded and discharged or deposited onto adjacent properties or into a stormwater drainage system, a public street or right of way, wetland, creek, stream, water body, or floodplain.
- 9.2 All development shall be in accordance with all applicable federal, state and local ordinances, rules and regulations.
- 9.3 If the owner or operator is required to prepare an Erosion and Sediment Control Plan (ESCP) as legislated by Rule 5 (327 IAC 15-5), such plan shall be deemed to fulfill the requirements of this Ordinance. In this case, all applicable state and federal permits or notices for land disturbing activities shall be obtained or filed prior to commencement of land disturbing activities. All applicable state or federal standards shall be adhered to when conducting land-disturbing activities. Copies of all applications, letters of intent submittals, plans and other erosion and sediment control related information developed for and/or submitted to state or federal authorities shall be copied to the Stormwater Office in addition to the ESCP. In addition to the requirements of Rule 5, any person disturbing property for construction of new buildings that will require regrading, alteration, or disturbance of the property outside of a five foot perimeter around the structure shall also require the filing of an erosion control permit. Plans for individual lots may be submitted on 8 1/2 X 11 paper as long as the scale does not exceed 50' to 1''.
- 9.4 Prior to making any earth change on a development site regulated by this Ordinance, the developer shall first obtain a soil erosion permit the Town of Mooresville. The developer shall install stormwater runoff facilities and shall phase the development activities so as to prevent construction site stormwater runoff and off-site sedimentation.

9.5 During all construction activities on the development site, the Stormwater Office or their representative may inspect the development site to ensure compliance with the approved construction site runoff controls.

9.6 All methods used shall comply with the Indiana Handbook for Erosion Control.

## **10.0 Reporting**

The Stormwater Office or an appointed representative shall report in the month of July of each year to the Board an account of the status of the Ordinance. The report shall contain no less than the following:

10.1 The number of drainage reviews completed,

10.2 The number of Stormwater Management Plan Approvals granted,

10.3 The number of water quality Best Management Practices approved and installed in the Town,

10.4 The number of Erosion and Sediment Control plans reviewed, by the Stormwater Office or their representative,

10.5 An accounting of total fees collected and dispersed as directed by the Ordinance,

10.6 A statement as to the effectiveness of the Ordinance to address ongoing drainage issues and concerns within Mooresville,

10.7 A statement as to the adequacy of the established fees to affectively cover expenses associated with the administration and implementation of the Ordinance.

## **11.0 Enforcement**

In the case of non-compliance with this Ordinance or the Stormwater Design Manual, the Stormwater Office has the right to issue abatement orders, stop work orders, injunctions, and/or revoke Stormwater Management Plan Approvals and to issue fines for violations pursuant to Ordinance \_\_\_\_\_, 2012.

11.1 If the applicant commences work for which the Stormwater Management Plan Approval (SWMPA) is required without compliance with the provisions of this

Ordinance, the review fee shall be increased to an amount necessary to cover enforcement costs and fines. If work for which the SWMPA is required is completed or substantially completed by the applicant without compliance with the provisions of the Mooresville Stormwater Management Ordinance, the review fee shall be increased to Two Thousand Five Hundred Dollars (\$2,500.00).

11.1.1 There shall be a reinstatement fee of Five Hundred Dollars (\$500.00) for Stop Work Order.

11.2 The Stormwater Office may revoke a SWMPA where the submittal packet, plans, and/or other supporting documents reflect either:

11.2.1 A false statement or misrepresentation as to material fact; or

11.2.2 Failure to comply with the requirements of this manual.

11.3 Whenever the Stormwater Office discovers the existence of any of the circumstances listed below, they are empowered to issue an order requiring the suspension of the land alteration. The stop-work order shall be in writing and shall state to what land alteration it is applicable and the reason for its issuance. One (1) copy of the stop-work order shall be posted on the property in a conspicuous place and one (1) copy shall be delivered to the applicant, and if conveniently possible to the person doing the land alteration and to the owner of the property or his agent. The stop work order shall state the conditions under which land alteration may be resumed. A stop-work order shall be issued if:

11.3.1 Land alteration is occurring in violation of a drainage requirement and in such manner that if land alteration is allowed to proceed, there is a probability that it will be substantially difficult to correct the violation; or

11.3.2 Land alteration has been accomplished in violation of a drainage requirement and fifteen (15) calendar days has elapsed since written notice of the violation or

noncompliance was either posted on the property in a conspicuous place or given to the person doing the land alteration, without the violation or noncompliance being corrected; or

- 11.3.3 Land alteration for which a SWMPA is required is proceeding without a SWMPA being in force. In such an instance the stop-work order shall indicate that the effect of the order terminates when the required SWMPA is obtained.

## **12.0 Facility Maintenance Responsibilities**

It shall be the responsibility of the developer/owners to maintain all detention/retention facilities and drainage easements on their property. If there are more than one lot or holding served by the facility this shall be documented on the property deeds and recorded on the plat unless responsibility is formally accepted by a public body. This shall be determined prior to final drainage plan approval.

- 12.1 Failure of the developer/owner to maintain such easements or facilities as approved in the original plan shall constitute a violation of this Ordinance.

## **13.0 Illicit Connections and Illegal Dumping**

It shall be unlawful for any person to connect, dump, or otherwise discharge any substance or item not directly related to stormwater into any part of the storm drain system without written permission from the appropriate agency.

- 13.1 No person shall:

- 13.1.1 Cause or allow an illicit discharge to the storm drain system or any component thereof, or onto driveways, sidewalks, parking lots sinkholes, creek banks, or other areas that may drain to the storm drain system;
- 13.1.2 Connect, or allow to be connected any sanitary sewer to the storm drain system, including any sanitary sewer or septic system connected as of the date this Ordinance is adopted.

- 13.1.3 Connect, or allow to be connected any stormwater system to a sanitary sewer without the written permission of the owner.
- 13.1.4 No person shall dump, deposit, release, leak, pump, pour, emit, empty, discharge, inject, bury, or dispose of any oil, anti-freeze, herbicide, pesticide, fungicide, animal, pet or human excrement or any other solid, liquid, or hazardous waste to any part of the storm drain system or on any public or private premises in the Town.
- 13.1.5 No person shall dispose of any leaves, brush, sticks, dirt, landscape debris, or other yard waste (which includes grass clippings) to any part of the storm drain system. This would include the blowing of grass, leaves, or other yard waste by mower or any other means into any part of the storm drain system.