

Ordinance # 2010-03

**Ordinance Regarding Post-Construction Stormwater Management In
New Developments And Redevelopments
County Of Boyd**

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Section I. Introduction / Purpose

Post-Construction Stormwater Management refers to activities that take place after construction occurs, and includes structural and non-structural controls to obtain permanent improvements in stormwater quality and stormwater rate/volume reduction over the life of the land use.

Land development projects increase impervious area which alters the hydrologic and hydraulic response of watersheds and increases stormwater runoff rates and volumes, flooding, stream channel erosion, and sediment transport and deposition.

The purpose of this ordinance is to establish minimum stormwater management requirements and controls to safeguard the general health, safety, and welfare of the public residing in the watersheds within Boyd County. The requirements set forth herein are intended to:

- A) Develop and implement strategies which include a combination of structural and/or non-structural best management practices that prevent or minimize water quality impacts in new developments and redevelopments;
- B) Ensure long term inspection, operation and maintenance of BMPs; and
- C) Comply with the Clean Water Act and the Kentucky Pollutant Discharge Elimination

System (KPDES) General Permit for Stormwater Discharges from Municipal Storm Sewer Systems (MS4s), for the purpose of protecting rivers, streams, creeks, lakes, ponds and all other bodies of surface or underground water from degradation.

Section II. Definitions

Best Management Practices (BMP)	Schedule of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the Commonwealth. BMPs also include treatment requirements, operating procedures, and practices to control runoff.
Blue Line Streams	Streams that are represented on the United States Department of the Interior Geological Survey 1:24,000 quadrangle maps with a blue line.
Certified Contractor	A person who has received erosion prevention and sediment control (EPSC) training and is certified by Boyd County Road or Economic and Community Development Department or Kentucky Division of Water to inspect and maintain erosion and sediment control practices.
Channel	A natural or constructed/manmade watercourse with definite bed and banks to confine and convey continuously or periodically flowing water. Channel flow is that water which is flowing within the limits of the defined channel.
Clean Water Act (CWA)	Federal Regulation that prohibits the discharge of pollutants to Waters of the United States unless said discharge is in accordance with an NPDES permit.
Clearing	Any activity that removes the vegetative surface cover.
Critical Area	A site difficult to stabilize due to exposed subsoil, steep slope, extent of exposure, or other conditions.
Detention	The temporary delay of storm runoff prior to discharge into receiving waters.
Developer	Any individual, firm, corporation, association, partnership, or trust involved in commencing proceedings to affect development of land for him or others.
Drainage Basin	A part of the surface of the earth that contributes surface water runoff into a surface stream or a body of impounded surface water together

	with all tributary surface streams and bodies of impounded surface water.
Drainage Way	Any channel that conveys surface runoff throughout the site.
Drainage/Dry Well	A bored, drilled, driven, dug, or naturally occurring shaft or hole with a depth greater than the largest surface dimension; used to drain surface fluid, primarily storm water runoff, into a subsurface formation.
Ephemeral Stream	A stream or part of a stream that flows only in direct response to precipitation or snowmelt. Its channel is above the water table at all times.
Erosion	The wearing away of land surface by the action of wind, water, gravity, ice, or any combination of those forces.
EPSC Plan	A set of plans prepared by or under the direction of a qualified professional in the State of Kentucky indicating the specific measures and sequencing to be used to control sediment and erosion on a development site during and after construction.
Excavation	Any portion of land surface or area from which earth has been removed or will be removed; the depth below original ground surface to remaining surface.
Existing Grade	The slope or elevation of existing ground surface prior to cutting or filling.
Fill	Portion of land surface or area to which soil, rock, or other materials have been or will be added; height above original ground surface after the material has been or will be added.
Finished Grade	The final slope or elevation of the ground surface after cutting or filling.
Flood Plain	The relatively flat or lowland area adjoining a river, stream, watercourse, lake, or other body of standing water which has been or may be covered temporarily by floodwater. For purposes of this manual, the flood plain is defined as the 100-year floodplain having a one percent chance of being equaled or exceeded in any given year.
Grading	Any stripping, cutting, filling or stockpiling of earth or land to create new grades.

Impervious Surface	A term applied to any ground or structural surface that water cannot penetrate or through which water penetrates with great difficulty.
Kentucky DOW	Agreement between the Kentucky Division of Water (DOW) and General Permit and the Co-permittee (Boyd County Fiscal Court) which authorizes the discharge of pollutants in stormwater discharges associated with Phase II Municipal Storm Sewer Systems (MS4s). The general permit requires Boyd County to develop a stormwater quality management program that is designed to reduce the discharge of pollutants to the maximum extent practicable (MEP).
Land Disturbance	The purposeful act of clearing, grubbing, excavating or grading; disrupting ground surface by or for construction activities, including construction access/roads, staging, and storage sites producing significant areas of exposed soil and soil piles.
Maximum Extent Practicable (MEP)	The water quality control and treatment standard for stormwater discharges from the municipal separate storm sewer system.
National Pollutant Discharge Elimination System (NPDES)	EPA's program to control the discharge of pollutants to waters of the United States. NPDES is a part of the Federal CWA, which requires point and non-point source dischargers to obtain permits. These permits are referred to as NPDES permits.
Notice of Intent (NOI)	A formal notice to the KYDOW that a construction project seeking coverage under a General Permit is about to begin.
Notice of Termination (NOT)	A formal notice to KYDOW that construction project is complete and seeking release for the EPSC and the State General Permit.
Perimeter Control	A barrier that prevents sediment from leaving a site by filtering sediment-laden runoff or diverting it to a sediment trap or basin.
Permitting Agency	The Boyd County Code Enforcement Department is responsible for review and approval of permits, SWPPP and EPSC plans.
Permit Phasing	Clearing a parcel of land in distinct phases, with the stabilization of each phase completed before the clearing of the next.
Permittee	Shall mean the "Person, Company, Contractor or Developer, who is responsible for the Land Disturbing Activity".
Public Storm Drain	Drain system provided and maintained by the Boyd County Road Department, that is designed to help maintain storm water runoff and

	also provides inlets for water to travel to holding areas attempting to remove excessive water from streets and other areas.
Sediment	Solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, or gravity as a product of erosion.
Sediment Control	Measures that prevent eroded sediment from leaving the site.
Site	A parcel of land or a contiguous combination thereof, where grading work is performed as a single unified operation subject to erosion of sedimentation as a result of cutting, filling, grading, or other disturbance of the soil.
Site Development Permit	A permit issued by Boyd County for the construction or alteration of ground improvements and structures for the control of erosion, runoff, and grading.
Site Waste Control	The requirements set forth in this ordinance are also intended to control or eliminate waste from construction site operators that may cause adverse impacts to water quality.
Stabilization	The use of practices that prevent exposed soil from eroding.
Start of Construction	The first land-disturbing activity associated with a development, including land preparation such as clearing, grading, and filling; installation of streets and walkways; excavation for basements, footings, piers, or foundations; erection of temporary forms; and installation of accessory buildings such as garages.
Storm Water Quality Management Plan (SWQMP)	Written plan that details Boyd County's "Stormwater Quality Management Program". The plan is considered a single document which consists of the six minimum control measures of MS4 program.
Storm Water Pollution Prevention Plan (SWPPP)	A plan required by Boyd County and the storm water regulations that includes a site map(s), an identification of construction/contractor activities, storm water conveyance systems and water quality control treatment systems. It includes activities during construction to prevent erosion and infrastructure and non-structural BMPs left in place after (post) construction that manage storm water quality and reduce pollutants in stormwater discharges. A SWPPP is more comprehensive than an EPSC Plan.
Temporary Protection	Short-term stabilization of erosive or sediment producing areas.

Vegetative Protection	Stabilization of erosive or sediment producing areas by covering the soil with any of the following materials: permanent seeding for long-term vegetative cover, short-term seeding for temporary vegetative cover, sodding, producing areas covered with a turf of perennial sod-forming grass, tree planting, or other planting.
Watercourse	Any body of water, including, but not limited to lakes, ponds, rivers, streams, and bodies of water designated as part of the storm water conveyance system.
Waterway	A channel that conveys surface runoff to a watercourse or to the public storm drain.

Section III. Applicability

The ordinance shall apply to ***permanent*** structural and non-structural BMPs in new development or redevelopment projects that disturb greater than one acre, and projects disturbing less than one acre that are part of a larger common plan of development. Projects include lands for residential, commercial, industrial or institutional use, but do not apply to agricultural land management practices. Exemption of agricultural land management practices does not apply to illicit discharges.

The ordinance seeks to ensure that post-construction SWPPP are developed, reviewed and approved and stormwater management facilities are properly maintained through the execution of long-term maintenance agreements and maintenance plans and management practices by property owner(s).

Section IV. Other Laws and Permits

This ordinance is not intended to interfere with, abrogate, or annul any other ordinance, regulation, permit, or other provision of Local, State or Federal 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 regulation, permit, or Law, whichever provisions are more restrictive or impose higher protective standards for human health and/or the environment shall be considered to take precedence.

Regulations, permits and erosion protection and sediment control procedures for land disturbance activity and site work construction are included in Boyd County's "***Erosion Prevention and Sediment Control Ordinance***".

Regulations to regulate the contribution of pollutants to the MS4 conveyance system by any user and the prohibition of illicit connections and discharges to the MS4 conveyance

system are included in the County's "*Illicit Discharge Control Ordinance*".

Section V. Implementation of Stormwater Management Program and BMPs

- A) The Boyd County Code Enforcement Departments are responsible for the implementation and enforcement of this ordinance and Storm Water Quality Management Program for Boyd County.
- B) These Departments shall implement the following:
 - (1) Establish policies, procedures, standards and criteria relating to storm water runoff quality and quantity;
 - (2) Develop a local water –quality treatment standard to manage runoff through water-quality control structures. The local standard, at a minimum, shall be based on an analysis of precipitation records to determine the equivalent surface depth of rainfall (e.g. 0.75 inches) produced from an 80th percentile precipitation event; the water quality standard shall provide water treatment to the MEP for precipitation events equal to or less than the 80th percentile precipitation event; and
 - (3) Create a storm water management guidance design manual and standards for development and redevelopment projects that address quantitative controls for increased volume and rate of surface runoff and qualitative controls that reduce or eliminate pollutants carried by runoff;
- C) Until such time existing regulations are modified or new storm water quality and quantity policies, design criteria and standards are developed – to address storm water quality management, reduce water quality impacts and maintain pre-development runoff conditions, Boyd County may require the design and implementation of structural and non-structural BMPs for new and redevelopment projects.
- D) The design of structural and non-structural BMPs and preparation of SWPPP shall be by a professional engineer licensed in the Commonwealth of Kentucky to practice in the field of civil works, and be approved by Boyd County Code Enforcement Department. Structural and non-structural BMPs shall include but be limited to the following:
 - (1) **STORM WATER CONTROL**

Storm water control BMPs shall be utilized to address runoff volume and rate, and remove pollutants. These BMP's may include detention facilities, extended detention basins, retention facilities, hydrodynamic separators, first flush basins, infiltration trenches and drain fields.

(2) **STREAM CORRIDOR PROTECTION**

Stream corridor protection BMPs shall be utilized to protect designated streams and waterways through conservation methods. These methods may include buffer strips, greenways, vegetated channels, stream bank stabilization and restoration.

(3) **IMPERVIOUS AREA RUNOFF CONTROLS**

Impervious area runoff controls shall be utilized to address high levels of runoff quantity and quality associated with high-density developments. These controls may include preservation of open space, minimizing impervious surfaces, porous pavement, utilization of grass swales instead of curb and gutter, reduced pavement widths and similar measures.

(4) **DISCHARGE CONTROLS**

Discharge control BMPs shall be utilized to provide flow attenuation for post-development runoff. These BMPs may include detention facilities, extended detention basins, retention facilities and artificial wetlands.

Section VI. Stormwater Pollution Prevention Plan (SWPPP) Requirements

- A) On development or redevelopment projects, the developer shall submit SWPPP of the proposed BMPs prepared by a licensed engineer. The plans shall be drawn to an appropriate scale and shall include plan and profile views, sections, details, notes and other information necessary for the installation of the BMPs.
- B) The developer's submittal for SWPPP review may include a plan review fee no greater than \$50.00. This review fee is in addition to any other required application or plan review fees.

Section VII. SWPPP Review and Approval Process

- A) Boyd County will review each SWPPP submittal to determine its conformance with the provisions of this ordinance. Acceptance indicates that minimum requirements or intent are met and does not imply a guarantee of performance. Based on the review of the permit application, the Permitting Agency, will:
 - 1) Accept the SWPPP submittal;
 - 2) Accept the SWPPP submittal subject to such reasonable conditions as may be necessary to meet the requirements/intent of the objectives of this ordinance, and issue the permit subject to these conditions; or
 - 3) Deny the SWPPP submittal, indicating the reason(s) and procedure for submitting a revised SWPPP and/or submission.

Section VIII. Maintenance of Stormwater Management Facilities

A) Maintenance/Stormwater Easement

The applicant or owner of the site shall execute a maintenance easement agreement that shall be binding on all subsequent owners of land served by the stormwater management facility. The agreement shall provide for access to the facility at reasonable times for periodic inspection by Boyd County, or their contractor or agent, to ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by this ordinance and to, if necessary, implement emergency repairs to protect the health, safety and welfare of the public. The easement dimensions shall be as directed by Boyd County and the easement agreement shall be recorded in the office of the County Clerk, with a copy provided to Boyd County.

B) Maintenance after Construction

The owner or operator of permanent stormwater management practices installed in accordance with this ordinance shall ensure they are operated and maintained to achieve the goals of this ordinance. Proper operation and maintenance also includes a preventive/corrective maintenance program and written procedures for operation and maintenance and training new maintenance personnel.

C) Maintenance Agreements

The maintenance and proper operation of all privately owned stormwater management facilities, including nonstructural practices, shall be ensured through the creation of a formal and enforceable maintenance agreement that must be approved by Boyd County and recorded in the office of the County Clerk as a deed restriction on the property prior to final SWPPP approval. This agreement will include any and all maintenance/stormwater easements required to access and inspect the stormwater management practices, and will outline the procedures and schedule to be followed to perform routine maintenance as necessary to ensure proper functioning of the stormwater management practice. In addition, the legally binding agreement shall identify the parties responsible for the proper maintenance of all stormwater treatment practices and include plans for periodic inspections by the owners, or their designated agent, to ensure proper performance of the facility.

D) Requirements of Maintenance Agreements

All stormwater management facilities must undergo, at the minimum, an annual inspection to document maintenance and repair needs to ensure compliance with the requirements of this ordinance and accomplishment of its purposes. These needs may include: removal of silt, litter and other debris from all catch basins, inlets and drainage pipes; grass cutting and vegetation removal; and necessary replacement of landscape vegetation. Any maintenance needs found must be repaired and restored as soon as possible. Boyd County shall be notified after repair work has been completed to perform a follow-up inspection. The inspection and maintenance requirement may be increased by Boyd County as deemed necessary to ensure proper functioning of the stormwater

management facility. Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least five (5) years. These records shall be made available to Boyd County.

Section IX. Inspection

- A) Boyd County designated agent shall make inspections as deemed necessary to ensure the long term BMPs are being properly installed during construction. If BMPs are not being installed per the approved SWPPP, the developer/contractor shall be notified and enforcement actions shall be taken.
- B) Upon completion of all site work and installation of long term BMPs, Boyd County will make a final inspection to ensure BMPs have been installed and are operating correctly in accordance with the SWPPP.
- C) Boyd County shall make annual inspections thereafter to ensure the permanent stormwater management facility is operating properly.

Section X. As-Built Drawing Requirements

- A) Prior to the final release of any bonds or other fiscal security that may be required for new developments or redevelopment projects or prior to the issuance of a certificate of occupancy, the project developer and/or contractor shall submit to Boyd County Department as-builts of the newly constructed site improvements and storm water facilities.
- B) The as-built condition of these storm water facilities and other site improvements shall be certified by a Professional Engineer and must be reviewed and approved by Boyd County. As-builts shall be provided in both paper copy and electronic format, in a version acceptable to Boyd County.

Section XI. Enforcement and Penalties

- A) Stop-Work Order; Revocation of SWPPP
In the event that any person holding an approved SWPPP pursuant to this ordinance violates the terms of the SWPPP or maintenance agreement in such a manner as to materially adversely affect the health, welfare, or safety of the public near the development site or vicinity so as to be materially detrimental to the public welfare or injurious to property or improvements in the vicinity, Boyd County may suspend or revoke SWPPP.
- B) Violation and Penalties
No person shall construct, enlarge, alter, repair, or maintain any grading, excavation, or fill, or cause the same to be done, contrary to or in violation of any terms of this ordinance. Any person violating any of the provisions of this ordinance shall be deemed

guilty of a misdemeanor and each day during which any violation of any of the provisions of this ordinance is committed, continued, or permitted, shall constitute a separate offense. Upon conviction of any such violation the person, partnership, or corporation shall be punished by a fine of not more than \$ 1,000 for each offense. (Note for each day that the prohibited action is continued, it shall constitute a separate offense) In addition to any other penalty authorized by this section, any person, partnership, or corporation convicted of violating any of the provisions of this ordinance shall be required to bear the expense of such restoration.

Section XII. Separability

The provisions and sections of this ordinance shall be deemed to be separable, and the invalidity of any portion of this ordinance shall not affect the validity of the remainder.

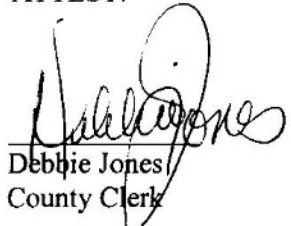
This ordinance shall be read on two separate days and become effective upon publication and second reading.

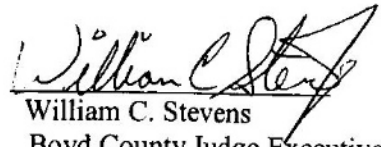
Given First Reading and Passed on the 12th day of October, 2010.

Given Second Reading and Passed the 2nd day of November, 2010.

ATTEST:

BOYD COUNTY FISCAL COURT


Debbie Jones
County Clerk


William C. Stevens
Boyd County Judge Executive

Published on _____.