

# **Water Quality Buffer**

**And**

# **Illicit Discharge Detection and Elimination Program** **(With Included Community Outreach and Education Section)**

## Water Quality Buffers

- (1.) Applicability: Water quality buffer requirements apply to all new land development or re-development containing streams or other water bodies such as ponds, lakes and wetlands, and subject to regulation under the Montgomery County Storm Water Management and Control Regulation. Water quality buffers are required along streams, ponds and other water bodies. Water quality buffers must be established, maintained and protected. Buffers shall remain undisturbed for the length of the water feature. These requirements are in addition to, and do not replace or supersede, any other applicable buffer requirements established by the State and Federal Governments.
- (2.) Water buffers provide the following benefits:
  - (2.1) Storm Water Quality: Buffers provide storm water quality treatment. They reduce total suspended solids and nutrients in storm water runoff. Deep-rooted vegetation intercepts and utilizes nutrients in shallow groundwater flow.
  - (2.2) Habitat: Buffers provide wildlife habitat along water bodies, and contributes the organic matter (e.g., leaf litter, woody debris) that is a source of food and energy for the aquatic ecosystem
  - (2.3) Stream Protection: Deep-rooted vegetation in water quality buffers aid in stream bank stabilization, increased water quality, and reduced storm runoff velocities.
  - (2.4) Temperature: Water quality buffers including trees and other tall vegetation provide shade to the water body. Removing this cover increases the temperature of the water body, which can threaten fish species that require lower water temperatures. Increased temperatures also increase the possibility of algal blooms that increase eutrophication
  - (2.5) Flooding: Water Quality Buffers reduce flooding potential by temporarily storing excess storm water.
  - (2.6) Value: Water quality buffers provide scenic value and recreational opportunity.
- (3.) Buffer Widths and Zones: Buffer widths have been established separately for streams and other water bodies. Zones and/or buffer compositions differ for streams and other water bodies. Buffer zone requirements only apply to new development areas or new re-development areas.
  - (3.1) Rivers, Streams and Brooks: New land disturbing activities along or near streams shall establish, protect, and maintain perpetually a 60 foot water quality buffers adjacent to, and on each side of rivers, streams and brooks. The buffer shall be measured horizontally from the top of bank. Top of bank shall mean the highest elevation of land which confines water flowing in a stream to the channel.

(3.2) Stream buffers shall have two zones as follows:

(3.2.1) Zone 1 will begin at the top of bank and extend horizontally and perpendicular to the stream for 30 feet. It will consist of trees and deep-rooted vegetation and shall remain undisturbed except for uses provided in Section 6.

(3.2.2) Zone 2 will begin at the outer edge of Zone 1 and extend landward 30 feet, making the combined width of the zones 60 feet. It will minimally consist of a dense grass buffer, with the grass maintained between 2 to 6 inches in height. Grading and revegetating in Zone 2 is allowed provided that the health of Zone 1 is not compromised. Other allowable activities and uses are listed under paragraph (5.), Allowable Activities within a Water Quality Buffer.

(3.3) Ponds, Lakes, Other Water Bodies: All land development or re-development activity subject to this ordinance shall establish and maintain a 30 foot grass buffer along all ponds, lakes, and other water bodies. Where manmade ponds interrupt streams, Zone 1 of the stream buffer can stop at the pond and resume at the point of outflow of the pond into the stream.

(3.3.1) Ponds that do not discharge into streams, brooks, rivers, sinkholes, wells, wetlands, watersheds, or into bodies of water which do discharge into the natural watershed, or onto another property owner's lands are not required to maintain a water quality buffer zone. The pond owner is responsible for property damages resulting from the failure of pond water containment measures, or if water that is released as a result of that failure results in pollutant discharge to the environment exceeding the limits outlined under the terms of the NPDES act, TDEC regulations, or the Montgomery County Storm Water Resolution.

(3.4) Wetlands: All land development or re-development activity subject to this ordinance shall establish and maintain 50 foot wide undisturbed water quality buffer adjacent to all wetlands. The buffer width shall be measured around the outer edge of the identified wetland. Native vegetation shall be undisturbed in this buffer. For those wetlands where the designation or extent of the wetland is in dispute, Montgomery County will rely on wetland designation by the Corps of Engineers (COE) or TDEC.

(3.5) Sinkholes: All land development or re-development activity subject to this ordinance shall establish and maintain a 60 foot wide undisturbed water quality buffer adjacent to all sinkholes. The buffer width shall be measured around the outer edge of the identified sinkhole. No structures are to be built within this buffer zone.

- (3.6) Class 5 Injection Wells (Improved Sinkholes): All land development or re-development activity subject to this ordinance shall establish and maintain a 60 foot wide undisturbed water quality buffer adjacent to all Class 5 Injection Wells. The buffer width shall be measured around the outer edge of the structure. No structures are to be built within this buffer zone.
- (4.) Protection of Water Quality Buffers: During construction, water quality buffers around streams, wetlands, ponds, and other water bodies must be protected from disturbance and from sediment-laden runoff from the site. Prior to beginning land-disturbing activities at a site, water quality buffers must be identified and flagged in the field for protection. Temporary fencing or other suitable alternative must be placed at the outer edge of the buffer to prevent inadvertent disturbance. The method of buffer protection must be detailed in the Storm Water Quality plan and the Grading Drainage and Erosion Control plan. Water quality buffers cannot act as vegetated filters for sediment control.
- (5.) Allowable Activities within a Water Quality Buffer: Montgomery County considers the activities listed in Table 1: Allowable Water Quality Buffer Impacts as allowable buffer activities. All other activities that impact the buffer shall proceed through a variance process.
- (6.) Specifically Forbidden Activities within a Water Quality Buffer: In order for the water quality buffer zone to function properly, it is necessary for certain activities to be limited within the buffer. The following activities are specifically limited within buffers without prior permission from the Montgomery County Building Commissioner or a qualified designee.
- (6.1) Filling or dumping
  - (6.2) Using, storing, or applying pesticides, herbicides and fertilizers
  - (6.3) Removal of vegetation in Zone 1 water quality buffers
  - (6.4) Camp fires, burning of plant waste or trash
- (7.) Buffer Ownership and Maintenance: For private properties and subdivisions, buffers shall be located inside individual lots or located within easements in common areas. Maintenance of the buffer shall remain with the property owner or with a homeowner's association. In the event of the homeowner's association dissolution, responsibility for Water Quality Buffer maintenance reverts to the property owner. Maintenance responsibilities shall be clearly indicated on plans submitted to the Building and Codes Department.
- (7.1) Maintenance shall be limited to removing dead or diseased plant material, repairing erosion problems internal to the buffer, clean up after a storm, or removal of invasive plants. Woody vegetation shall be removed by hand. Vegetative root systems shall be left intact to maintain the integrity of soil. Stumps shall remain where trees are cut.

(7.2) It is permissible to remove individual trees from water quality zones if there is danger of the tree falling and causing damage to dwellings or other structures, or which would result in significant blockage of stream flow, with prior permission from the Montgomery County Building Commissioner or a qualified designee. The root wad or stump should be left in place to maintain soil stability.

**Table 1: Allowable Water Quality Buffer Impacts**

Allowable Activities	Stream Buffers	Wetland Buffers	Pond Buffers
Greenway and Trails	Zone 1: Hardened surfaces not allowed.	Allowable, width not to exceed 5 feet	Allowable, width not to exceed 5 feet
	Zone 2: Hardened surfaces allowable, width not to exceed 5 feet.		
Wildlife and Fisheries Management	Wildlife and Fishing as approved by TDEC, TWRA, and/or U.S. Fish and Wildlife		
Water Dependant Structures (Boat Docks, Piers, Marinas)	Allowable pending Tennessee Department of Environment, Tennessee Wildlife Resources Agency, and/or US Corps of Engineers permit and licensing requirements. Builder must minimize environment disturbance and stabilize disturbed areas as soon as possible		
Driveway Crossings	Less than 3000 square feet of buffer impact is allowable (based on 30 foot wide disturbance) perpendicular to the stream.	Not Allowable	Allowable
Road Crossings	2 crossings per 1000 linear feet of stream are allowable. Crossings shall be perpendicular to the stream	Not Allowable	Allowable
Underground Utility Lines	Zone 1: Not allowable Zone 2: Allowable	Not Allowable	Allowable
	Stream crossings shall be perpendicular to the stream flow and shall impact no more than 30 feet width perpendicular to the flow.		
Overhead Utility Lines	Allowable: Stream crossings shall be perpendicular to the stream flow and shall impact no more than 30 feet width perpendicular to the flow.	Allowable	Allowable

(8.) Implementation: These Water Quality Buffer regulations will take effect at midnight on 02/29/08. All developments or re-developments that have had the Grading, Drainage and Erosion Control plans approved before this date and time are exempt from these regulations. All developments or re-developments that have Grading, Drainage and Erosion Control plans approved after this date and time must follow these regulations.

### **Illicit Discharge Detection and Elimination Program (With Included Community Outreach and Education Section)**

(1.) All non-storm water discharges into Montgomery County waters, into the waters of the state of Tennessee, or into the Montgomery County Municipal Separate Storm Sewer System are prohibited and are declared to be unlawful except as noted in paragraph (3.) Allowable Discharges.

(2.) Definitions

(2.1) Montgomery County Municipal Separate Storm Sewer System: means a conveyance, or system of conveyances designed or used for collecting or conveying storm water. Sanitary and combined sewers are not included in the definition of the municipal separate storm sewer system.

(2.2) Montgomery County Waters: means any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wetland, wells and other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of Montgomery County, Tennessee.

(2.3) Waters of the State of Tennessee (also, Waters of the State): means any water, surface or underground, lying within or forming a part of the boundaries of Montgomery County, over which the Tennessee Department of Environment and Conservation exercises primary control with respect to storm water permits.

(3.) Allowable Discharges: Unless identified by the Montgomery County Building Commissioner or Qualified Designee as a source of pollution, the following non-storm water discharges into public or private storm water drainage systems are permitted:

- (3.1) Water line flushing
- (3.2) Landscape irrigation
- (3.3) Diverted stream flows permitted by the State of Tennessee
- (3.4) Rising ground waters
- (3.5) Uncontaminated ground water infiltration as defined at 40 CFR 35.2005(20)
- (3.6) Uncontaminated pumped ground water
- (3.7) Discharges from potable water sources
- (3.8) Foundation drains
- (3.9) Irrigation water
- (3.10) Springs

- (3.11) Water from crawl space pumps
- (3.12) Footing drains
- (3.13) Lawn watering
- (3.14) Individual residential car washing
- (3.15) Approved non-profit organization car washing for charitable purposes
- (3.16) Flows from riparian habitats and wetlands
- (3.17) Dechlorinated swimming pool discharges
- (3.18) Street wash waters resulting from normal street cleaning operations
- (3.19) Discharges or flows from emergency fire fighting activities
- (3.20) Discharges pursuant to a valid and effective NPDES permit issued by the State of Tennessee
- (3.21) Other discharges as determined by the Montgomery County Building Commissioner or Qualified Designee and/or documented in the **Tennessee Erosion and Sediment Control Handbook** or its appendices

(4.) It shall be illegal for any person, business, or organization to intentionally dump liquids or solids that are considered priority pollutants by the EPA onto the ground, parking lots, vehicle storage and maintenance lots, vehicle wash areas, or any other uncontained area where there is a potential for exposure to rain or storm water runoff and potential for the pollutant to reach public or private storm water drainage systems (including the Montgomery County Municipal Separate Storm Sewer System), Montgomery County waters, or waters of the state of Tennessee.

(5.) As permitted by state law TCA 68-221-1106, violation of this section shall subject the violator to a civil penalty of not less than fifty dollars nor more than five thousand dollars per day for each day of violation. Each day of violation may constitute a separate violation.

(6.) The County Building Commissioner or Qualified Designee shall have authority to limit non-storm water discharges by implementing appropriate regulations, policies and procedures. Such regulations, policy and procedures may include, but are not limited to, provisions for:

- (6.1) Determination of points of origin of known or suspected non-permitted discharges;
- (6.2) Implementation of a mapping program to accurately locate and map storm water control structures, including all outflows to Montgomery County waters or waters of the state
- (6.3) Implementation of education programs and discharge reduction programs for Montgomery County employees and departments designed to minimize polluting discharges
- (6.4) Implementation of a community education and outreach program to inform the public of the Storm Water regulations, of procedures to report illicit discharges, and to understand their rights and duties under the Storm Water Resolution
- (6.5) Implementation of community programs to allow individual and organizations to engage in programs to promote public awareness of illicit discharge, to rehabilitate riparian areas to natural condition, and to keep riparian areas free of trash and debris

(7.) Implementation: The Illicit Discharge Detection and Elimination Program (With Included Community Outreach and Education Section) regulations will take effect at midnight on 02/29/08.

**08-1-2**

**RESOLUTION OF THE MONTGOMERY COUNTY BOARD OF  
COMMISSIONERS ESTABLISHING THE WATER QUALITY  
BUFFER REGULATIONS AND THE ILLICIT DISCHARGE  
DETECTION AND ELIMINATION REGULATIONS**

**WHEREAS**, on July 3, 2003, Tennessee Department of Environment & Conservation accepted Montgomery County's Notice of Intent and issued a Notice of Coverage for Montgomery County under the State of Tennessee's National Pollutant Discharge Elimination System General Storm Water Discharge Permit for Small Municipal Separate Storm Sewer Systems; and

**WHEREAS**, the state National Pollutant Discharge Elimination System Phase II permit, dated February 26, 2003 and applicable to Montgomery County, states as one of its requirements that Montgomery County, Tennessee shall develop and implement a set of requirements to establish, protect and maintain water quality buffers in areas of new development and redevelopment; and

**WHEREAS**, the state National Pollutant Discharge Elimination System Phase II permit, dated February 26, 2003 and applicable to Montgomery County, states as one of its requirements that Montgomery County, Tennessee shall develop and implement a set of requirements to establish and implement a program to detect and eliminate illicit discharges to the Montgomery County Municipal Separate Storm Sewer System and to the waters of Montgomery County and the State of Tennessee.

**NOW, THEREFORE, BE IT RESOLVED** by the Montgomery County Board of Commissioners assembled in Regular Session on this 14th day of January, 2008, that the included Water Quality Buffer Regulations shall take effect and be enforced as specified in section 8 of the Water Quality Buffer Regulations, and the Illicit Discharge Detection and Elimination Regulations shall take effect and be enforced as specified in section 7 of the Illicit Discharge Detection and Elimination Regulations, the public welfare requiring it.

**Duly passed and approved this 14<sup>th</sup> day of January, 2008.**

Sponsor \_\_\_\_\_

Commissioner \_\_\_\_\_

Approved \_\_\_\_\_

County Mayor

Attested \_\_\_\_\_

County Clerk