

RESOLUTION NO. 010311-A

A RESOLUTION TO ADOPT THE LOUDON COUNTY WATER QUALITY BUFFER RESOLUTION PURSUANT TO THE REQUIREMENTS OF LOUDON COUNTY'S NPDES PHASE II STORMWATER PERMIT ISSUED BY THE STATE OF TENNESSEE'S DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) PURSUANT TO THE FEDERAL CLEAN WATER ACT OF 1977

WHEREAS, the Federal Clean Water Act, 33 U.S.C. 1251 et seq., requires certain political entities, including Loudon County, TN, to implement stormwater management programs within prescribed time frames, and the Environmental Protection Agency, pursuant to this Act, has published rules for stormwater outfall permits; and

WHEREAS, Loudon County was issued a National Pollutant Discharge Elimination System (NPDES) Phase II permit in July, 2003, by the State of Tennessee pursuant to the Tennessee Water Quality Control Act of 1977 through the Tennessee Department of Environment and Conservation (TDEC) and is mandated to regulate the discharge of pollutants to the waters of the state; and

WHEREAS, the NPDES permit requires under section 4.2.5.1.3 and 4.2.5.1.4 that Loudon County develop and implement a set of requirements to establish, protect and maintain water quality buffers in areas of new development and redevelopment, and that Loudon County use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects;

NOW, THEREFORE, BE IT RESOLVED, by the Loudon County Commission that the Loudon County Water Quality Buffer Resolution be adopted as follows:

LOUDON COUNTY WATER QUALITY BUFFER RESOLUTION

- Section 1. Statutory Authorization.
- Section 2. Title.
- Section 3. Purpose.
- Section 4. Definitions.
- Section 5. General Requirements for Water Quality Buffer.
- Section 6. Where the Water Quality Buffer Applies.
- Section 7. Water Quality Buffer Width Requirements.
- Section 8. Standards for Buffer Vegetation.
- Section 9. Activities Permitted Within the Water Quality Buffer.
- Section 10. Activities Prohibited Within the Water Quality Buffer.
- Section 11. Protection of the Water Quality Buffer.
- Section 12. Plats Prepared for Recording.
- Section 13. Conflicts With Other Regulations.
- Section 14. Enforcement, Violations and Penalties.
- Section 15. Appeals.

Section 1. Statutory Authorization.

Under the authority of the federal Clean Water Act of 1977, the United States Environmental Protection Agency (EPA) is specifically required to develop and oversee the National Pollutant Discharge Elimination System (NPDES) permit program which requires all communities operating a small municipal separate storm sewer system (MS4) to regulate the discharge of pollutants to the waters of the state. Under the authority of the Tennessee Water Quality Control Act of 1977 the Tennessee Department of Environment and Conservation (TDEC) has interpreted that this mandate includes the regulation of aquatic buffers. The Legislature of the State of Tennessee has in Tennessee Code Annotated, § 6-2-201, delegated the authority to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry.

Section 2. Title.

This resolution shall be known as the Loudon County Water Quality Buffer Resolution.

Section 3. Purpose.

The purpose of a water quality buffer is to:

- a. Remove pollutants delivered in urban stormwater,
- b. Reduce erosion and control sedimentation,
- c. Protect, restore and maintain the chemical, physical and biological integrity of streams and their water resources,
- d. Protect public and private water supplies,
- e. Protect and stabilize stream banks,
- f. Protect channel banks from erosion and scour,
- g. Protect wetlands,
- h. Protect wildlife habitat, and
- i. Minimize the impact of floods.

Section 4. Definitions.

Agriculture-(1) The land, buildings and machinery used in the commercial production of farm products and nursery stock; (2) The activity carried on in connection with the commercial production of farm products and nursery stock; and (3) Recreational and educational activities on land used for the commercial production of farm products and nursery stock. As used in this definition of agriculture, the term “farm products” means forage and sod crops; grains and feed crops; dairy and dairy products; poultry and poultry products; livestock, including breeding and grazing; fruits; vegetables; flowers; seeds; grasses; forestry products; fish and other aquatic animals used for food; bees; equine; and all other plants and animals that produce food, feed, fiber or fur. As used in this definition of agriculture, the term “nursery stock” mean all trees, shrubs, or other plants, or parts of such trees, shrubs or other plants, grown or kept for, or capable of, propagation, distribution or sale on a commercial basis.

Best Management Practices (BMPs)-means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Buffer Enhancement Plan-a plan showing the establishment and/or restoration of the water quality buffer. The plan may be included as part of a comprehensive site plan required under the County’s site plan requirements, a stormwater management plan, and/or a separate plan following the specifications of this resolution.

Development-any manmade change, involving construction or reconstruction, to improved or unimproved real estate, including but not limited to, buildings or other structures, mining, dredging, grading, clearing, paving, excavation, drilling operations, or other land disturbances.

Easement-a legally dedicated right-of-way for the purpose of managing and maintaining stormwater flow facilities or other utilities within specified boundaries.

Erosion-the wearing away of land by action of wind, water, ice, or gravity.

Floodway-the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.

Floodplain-means any land area susceptible to flooding, which would have at least a one percent probability of flooding occurrence in any calendar year based on locally adopted flood plain maps.

Impervious Surfaces-those areas that prevent or impede the infiltration of stormwater into the soil as it entered in natural conditions prior to development. Common

impervious areas include, but are not limited to, rooftops, sidewalks, walkways, patio areas, driveways, parking lots, storage areas, compacted gravel and soil surfaces, awnings and other fabric or plastic coverings.

Land Disturbing Activity-any activity on private or public land that may result in soil erosion and the movement of sediments. Land disturbing activities include, but are not limited to, development, re-development, demolition, construction, reconstruction, clearing, grading, filling, logging and/or tree chipping, haul roads associated with the development, and excavation. No activities undertaken as part of an “agricultural” operation defined above are considered a land disturbing activity.

Lake or Pond-an inland body of standing water.

Native Vegetation-plants indigenous to East Tennessee or the southeastern United States.

NPDES-National Pollutant Discharge Elimination System.

Slope-the degree of deviation of a surface from the horizontal, usually expressed in percent or degrees.

Stormwater-surface water resulting from rain, snow, or other form of precipitation, which is not absorbed into the soil and results in surface water flow and drainage.

Stream-means a surface water that is not a wet weather conveyance.

Top of Bank-the uppermost limit of an active stream channel, usually marked by a break in slope. Also known as stream bank.

Total Maximum Daily Load (TMDL)-a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the sources(s) of the pollutant as designated and/or defined by the Tennessee Department of Environment and Conservation (TDEC).

Vegetation-collection of plant life, including trees, shrubs, bushes, and grass.

Watercourse-a permanent or intermittent stream or other body of water, either natural or manmade, which gathers or carries surface water.

Water Quality Buffer (WQB)-an easement that encompasses land within buffer areas described in this resolution. The water quality buffer is intended to be composed of undisturbed vegetation including trees, shrubs, and herbaceous vegetation; enhanced or restored vegetation; or the re-establishment of vegetation bordering streams, ponds, wetlands, reservoirs, or lakes, which exists or is established to protect those water bodies.

Wetlands-areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetland determination shall be made by the U.S. Army Corps of Engineers, TDEC, and/or the Natural Resources Conservation Service, or a qualified professional that has been trained in the identification and delineation of wetland areas.

Section 5. General Requirements for Water Quality Buffer.

The water quality buffer shall be established, managed and maintained to protect the physical and ecological integrity of the buffered waterbody, reduce the potential for flooding, provide tree canopy, stabilize stream banks, and filter runoff from developed areas. Management of the water quality buffer includes specific limitations on alteration of the natural conditions as set forth in this resolution.

Section 6. Where the Water Quality Buffer Applies.

The water quality buffer requirements apply to all new development or changes to existing development that result in a land-disturbing activity of one (1) acre or greater and are located within Loudon County's MS4 permitted area. Within these areas measures must be taken to establish, protect and maintain water quality buffers along all streams, rivers, lakes, ponds and wetlands. Agricultural activities, as defined in this resolution, are exempt from the water quality buffer requirements.

Section 7. Water Quality Buffer Width Requirements.

The minimum width of the water quality buffer will depend on the size of the drainage area.

1. Drainage Areas Less Than 1 Square Mile

The minimum buffer width required is 30 feet, measured horizontally from the top of the bank.

2. Drainage Areas Greater Than 1 Square Mile

The minimum buffer width required is 60 feet, measured horizontally from the top of the bank.

Water quality buffers are not required around the perimeter of hydraulically disconnected ponds or ponds or wetlands that are designed and constructed for the purposes of stormwater quality treatment.

3. Density Compensation

Property owners will be provided a density credit based on the amount of developable land lost due to the buffer requirement. Developable land is defined as that portion of the buffer area remaining after the 100 year floodplain, wetlands, and steep slope areas (greater than 25%) are deducted. The density credit will be added to the

developable part of the site. Calculations for the credit will be based on the zoning on the property. For example, if the property is zoned R-1, which allows 2 units per acre, and if the buffer requirement consumes 3 acres of developable land, the property owner will receive a credit of 6 units to be added to the density on the developable portion of the property.

Section 8. Standards for Buffer Vegetation

The water quality buffer should be a mature strip of undisturbed native vegetation, either existing or enhanced, containing natural vegetation and grasses that are native in origin.

If a waterbody does not have an established water quality buffer, then a water quality buffer enhancement plan shall be required. The plan will be submitted to the Loudon County stormwater administrator for approval and shall comply with the following:

1. All planting plans shall be drawn at a scale of not less than 1"=20' for small tracts and 1"=50' for large tracts on 24" x 36" sheets.
2. The planting plan may be submitted as part of a required site plan or plat.
3. The planting plan shall include a plant schedule which lists the number and common and botanical name(s) of all existing and proposed plantings. The plant schedule shall also list the height, spread, and where applicable, the caliper of all new plantings at the time of planting.
4. Stream banks must be planted with native vegetation that represents both woody (trees and shrubs) and herbaceous species. Density shall depend on the re-vegetation technique to be used and existing site conditions.
5. No trees shall be planted in a utility easement.
6. No species may comprise more than one third (1/3) of the total planted trees or shrubs.
7. Seedlings/trees must be guaranteed at a seventy-five percent (75%) survivorship rate.
8. Invasive species must be removed and managed.

Section 9. Activities Permitted Within the Water Quality Buffer

The following structures, practices, and activities are permitted within the water quality buffer:

1. Clearing or grubbing of existing vegetation subject to the approval of a buffer enhancement plan by the Loudon County Stormwater Administrator.

2. The limited use or application of pesticides and herbicides.
3. Cutting individual trees within the water quality buffer that are in danger of falling, causing damage to dwellings or other structures, causing blockage of the stream, standing in the path of an approved water, sanitary sewer, storm main; and/or the roots of a tree are penetrating or in danger of penetrating a sewer, water or storm drainage line at a joint or pipe connection. The root wad or stump should be left in place, where feasible, to maintain soil stability.
4. Infrastructure such as roads, bridges, storm drainage, stormwater management facilities that are appropriate for use in a riparian zone (e.g., wetlands, buffers), and utilities subject to the following standards:
 - a. The width should be the minimum width needed to allow for installation and maintenance.
 - b. Crossings shall be at an angle that minimizes clearing.
 - c. The minimum number of crossings should be used, with no more than 1 crossing every one thousand feet (1,000).
5. Paths and greenways, provided the design and location is approved by Loudon County.
6. Removal of vegetation that creates a traffic hazard or limits access to approved stream or utility crossings. Dense grass shall be used to revegetate these areas.
7. Bank stabilization, restoration and habitat improvement projects.
8. Disturbances required to establish and/or restore buffer areas in accordance with an approved buffer enhancement plan.
9. Pruning of native vegetation is allowed provided that the health and function of the vegetation is not compromised. Where the removal of nuisance vegetation results in a 50% reduction of the stream canopy then re-vegetation with native plants is required.
10. Other activities/uses that are approved by TDEC.

Section 10. Activities Prohibited Within the Water Quality Buffer

The following activities/uses are prohibited within the water quality buffer:

1. Storage of pesticides, herbicides, and fertilizers.
2. Use and application of fertilizers.

3. Parking lots.
4. New structures.
5. Vehicle storage and maintenance.
6. Waste storage.
7. Other manmade impervious surfaces.
8. Uses known to contribute pollutants to waterways.
9. Septic tanks and drain fields.
10. Hazardous or sanitary waste containment or landfills.
11. Mining.
12. Dumpster storage.
13. Grease bin storage.
14. Animal lots or kennels.
15. Stormwater detention/retention facilities
16. Other uses known to contribute pollutants to waterways.

Section 11. Protection of the Water Quality Buffer

All water quality buffers must be protected during construction/development activities. Prior to the initiation of land disturbing activities, construction staking must be done to clearly label the perimeter of the water quality buffer. Silt fence may be used to ensure the visibility of the water quality buffer. The completed staking and labeling must be approved by the Loudon County Stormwater Administrator prior to issuance of the grading permit.

Water quality buffers cannot be encroached upon or disturbed during project construction, unless they are being established, restored, or enhanced in accordance with an approved buffer enhancement plan.

Upon completion of construction, all areas of the water quality buffer, including stream banks, must be left in a stabilized condition. No actively eroding bare or unstable stream banks shall remain. The placement of riprap and other hard armor is allowed only when vegetative alternatives are not feasible.

In order to provide for the long-term protection and maintenance of the water quality buffer, Loudon County shall require that the water quality buffer be protected in perpetuity by placing the buffer in a permanent easement that is recorded with the property's deed or by plat. If the easement is not publicly owned, the easement should be held by one of the following non-governmental entities:

1. Land Trust, Land Management Company, Utility. A viable entity shall provide monitoring and oversight to ensure the perpetual protection of the buffer. The organization shall have the legal authority to accept and maintain such easements, be bona fide and in perpetual existence; and have conveyance instruments that allow for the transfer of the easement in the event the organization cannot carry-out its function.

2. Homeowners' Association (HOA). An HOA may own the buffer easement provided membership in the HOA is required of all property owners, it has the authority to place liens on property for the non-payment of dues, and it assumes the responsibility for protecting, monitoring and maintaining the area as a conservation easement.

3. Property Owner: If neither of the non-governmental entities above is able to provide perpetual protection of the buffer easement, then the property owner must assume responsibility for maintenance and protection.

Section 12. Plats Prepared for Recording.

All site plans and plats prepared for recording shall:

1. Show the extent of any water quality buffer on the subject property by metes and bounds and be labeled "water quality buffer".
2. Provide a note with reference to the water quality buffer stating that there shall be no clearing, grading, construction or disturbance of vegetation except as permitted by the Loudon County Stormwater Administrator.
3. Have permanent boundary markers with signage designating the water quality buffer. Markers with signage shall be installed prior to recording the final plat.

Section 13. Conflict With Other Regulations.

Where the requirements and standards of this resolution conflict with other local, state or federal laws or regulations, the more restrictive regulation shall apply.

Section 14. Enforcement, Violations and Penalties

It shall be unlawful for any person, corporation or entity to violate or fail to comply with the provisions of this resolution. Any person, corporation or entity that violates the provisions of this resolution shall be subject to the enforcement and penalty provisions of Loudon County's Stormwater Resolution (091205-S).

Section 15. Appeals

Any person, corporation or entity aggrieved by imposition of a penalty or requirement of this regulation shall have the right to appeal pursuant to Section 11. Appeals of the Loudon County Stormwater Resolution (091205-S).

BE IT FINALLY RESOLVED, that this Resolution shall take effect immediately, the public welfare requiring it.

ATTEST

Roy Bledsoe
LOUDON COUNTY CHAIRMAN

Estelle Herron
APPROVED: LOUDON COUNTY MAYOR

Jan. 3, 2011
DATE