RICHLAND COUNTY

PLANNING COMMISSION

JANUARY 4, 2010

RICHLAND COUNTY
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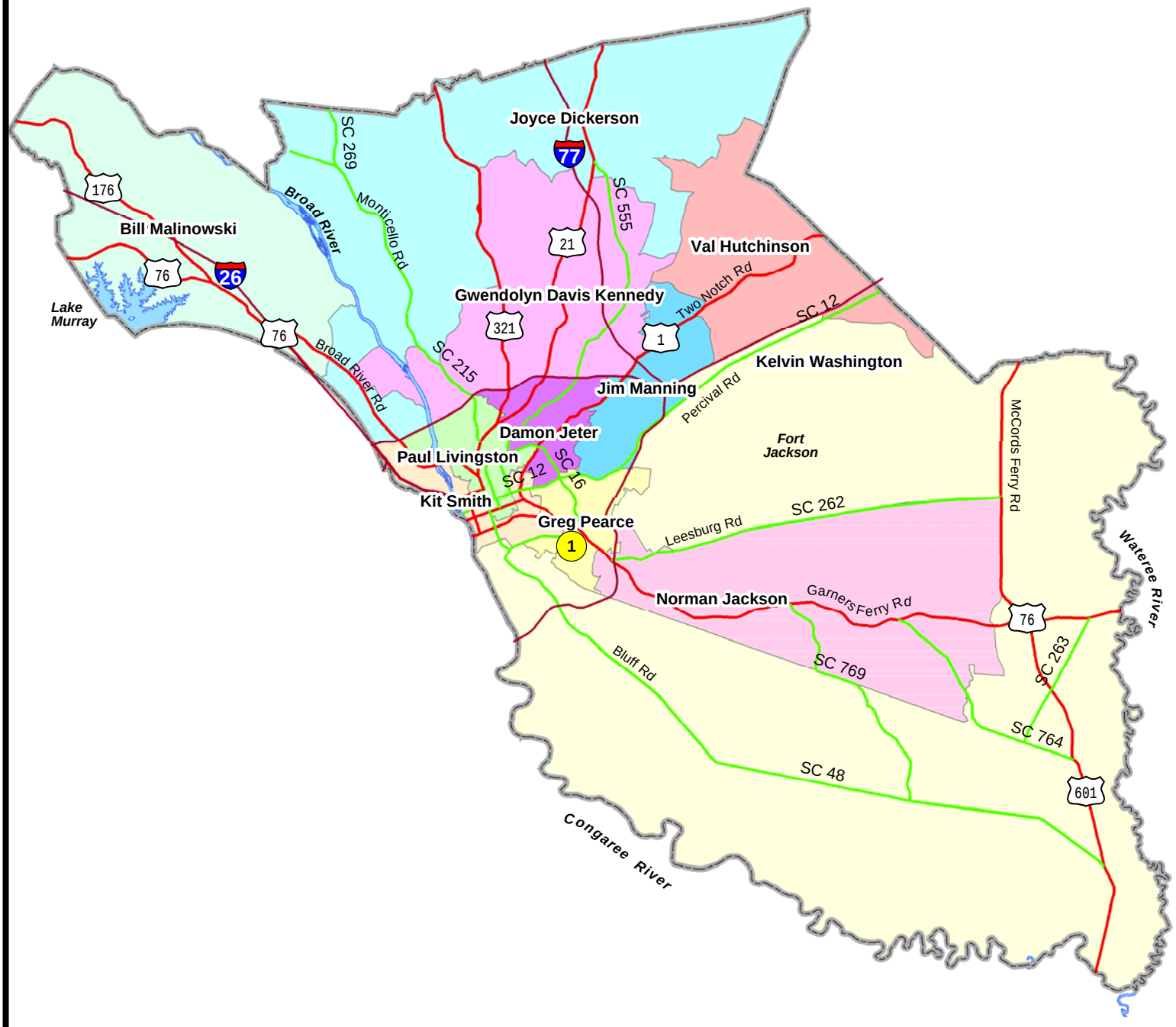
JANUARY 4, 2010



CASE NO.	APPLICANT	TMS NO.	LOCATION	DISTRICT
1. 10-01 MA	Albert E. McGee, Jr.	13809-03-21	302 South Beltline Blvd.	Pearce

RICHLAND COUNTY PLANNING COMMISSION

Monday, January 4, 2010
Agenda
1:00 PM
2020 Hampton Street
2nd Floor, Council Chambers

STAFF Sparty Hammett, Asst. Co. Admin. ..... Interim Planning Director
Anna Almeida, AICP ..... Deputy Planning Director
Amelia R. Linder, Esq. ..... Attorney

PUBLIC MEETING CALL TO ORDER ..... Pat Palmer, Vice-Chair

PUBLIC NOTICE ANNOUNCEMENT

ELECTION OF OFFICERS

PRESENTATION OF MINUTES FOR APPROVAL

a. December 2009 minutes

ROAD NAME APPROVALS

AGENDA AMENDMENTS

MAP AMENDMENTS

1. Case #10-01 MA
Albert E. McGee, Jr.
RM-HD to OI (.406)
TMS # 13809-03-21
302 South Beltline Boulevard
Page 1

TEXT AMENDMENTS

2. AN ORDINANCE AMENDING THE RICHLAND COUNTY CODE OF ORDINANCES; CHAPTER 26, LAND DEVELOPMENT; SO AS TO IMPROVE RICHLAND COUNTY'S WATER QUALITY, PROTECT THE ENVIRONMENT, AND COMPLY WITH THE COUNTY'S NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS.
Page 7

ADJOURNMENT

Richland County
Planning & Development Services Department

Map Amendment Staff Report

PC MEETING DATE:	**January 4, 2010**
RC PROJECT:	**10-01 MA**
APPLICANT:	**Albert E. McGee Jr.**
PROPERTY OWNER:	**Albert E. McGee Jr.**
LOCATION:	**302 South Beltline Boulevard**
TAX MAP NUMBER:	**13809-03-21**
ACREAGE:	**0.406**
EXISTING ZONING:	**RM-HD**
PROPOSED ZONING:	**OI**
PC SIGN POSTING:	**December 9, 2009**

Staff Recommendation

Denial

Background /Zoning History

The current zoning, Residential Multi-family High Density District (RM-HD) reflects the original zoning as adopted September 7, 1977. The parcel contains approximately one hundred and sixty (160) feet of frontage along South Beltline Boulevard.

Summary

The zoning request is being accommodated under Chapter 26 Section 26-52, subsection (b), paragraph (2), subparagraph (b) of the Land Development Code, a change in zoning for a parcel less than two acres may be requested if it is:

> "An addition of OI zoning contiguous to an existing commercial or residential zoning district "

The Office and Institutional District (OI) is intended to accommodate office, institutional, and certain types of residential uses in an area whose characteristics are neither general commercial nor exclusively residential in nature. Certain related structures and uses required to serve the needs of the area are permitted outright or are permitted as special exceptions subject to restrictions and requirements.

No minimum lot area, except as determined by DHEC. The maximum allowed density for residential uses is sixteen (16) dwelling units per acre.

Existing Zoning		
North:	RS-MD	Single-family Residences
South:	RG-2	City of Columbia, Woodland Terrace
East:	RG-2	City of Columbia, Woodland Terrace
West:	RG-2	City of Columbia, Magnolia Glen

Plans & Policies

The Imagine Richland 2020 Comprehensive Plan **"Lower Richland Area Land Use Map"** designates this area as Residential in the Established Urban District.

Objective: "Types and sites of employment and services shall be located to complement residential areas; minimize adverse effects of noise, pollution, glare and traffic on residential areas."

Non-Compliance: The subject parcel is surrounded by residential uses and contains access onto Withers Drive. Withers Drive is the only access point into Woodlands Terrace apartments.

Principle: "In general, commercial and office activities should be confined to existing zoned areas, and specifically proposed locations; intersection of two major streets and/or adjacent expressways".

Non-Compliance: The subject parcel is located four hundred and ninety five (495) feet south of the intersection of Rosewood Drive and South Beltline Boulevard.

Traffic Impact

The 2008 SCDOT traffic count at Station # 355, is south of the site on South Beltline Blvd, is 6,700 Average Daily Traffic (ADT's). South Beltline Boulevard is classified as a two lane undivided collector road with a design capacity of 8,600 ADT's. South Beltline Boulevard is currently functioning at the designed roadway capacity and operating at a Level of Service (LOS) "C". A more in depth traffic analysis would take place when the site plans are submitted.

Compliance with Pending Comprehensive Plan - Land Use Element 2009

The pending Land Use Element designates this area as ***Urban.***

Commercial/Office activities should be located at traffic junctions (intersections of arterial roads), along arterial roads, or in areas where existing commercial and office uses are located. Commercial uses within residential areas are appropriate when they complete a block face.

The subject parcel is located four hundred and ninety five (495) feet south of the intersection of Rosewood Drive and South Beltline Boulevard. There is an existing commercial use on the subject property with frontage along South Beltline Boulevard. The Comprehensive Plan recognizes the need to allow commercial uses within close proximity to residential areas without adversely affecting existing residential areas. The subject parcel is located south of residentially zoned parcels and the commercial parcels north and northwest of the subject site are located closer to the intersection of South Beltline Boulevard and Rosewood Drive.

The proposed Amendment is **not in compliance** with the pending 2009 Comprehensive Plan.

Conclusion

The proposed zoning would not compliment the existing Multi-family land uses to the south, west, and east of the subject parcel. The City of Columbia parcels south, east, and west are zoned RG-2. The RG-2 zoning category is the equivalent of the Richland County Land Development Code for Residential Multi-Family High Density District (RM-HD) zoning. North of the subject parcel are residential single family home parcels either zoned Residential Single Family Medium Density District (RS-MD) or RS-2 if they are in the City of Columbia. Northwest of the existing site along South Beltline Boulevard Office and Institutionally (OI) zoned parcels exist that contain multiple structures including a residence and a barber shop. The parcel has direct access onto South Beltline Boulevard and Withers Drive.

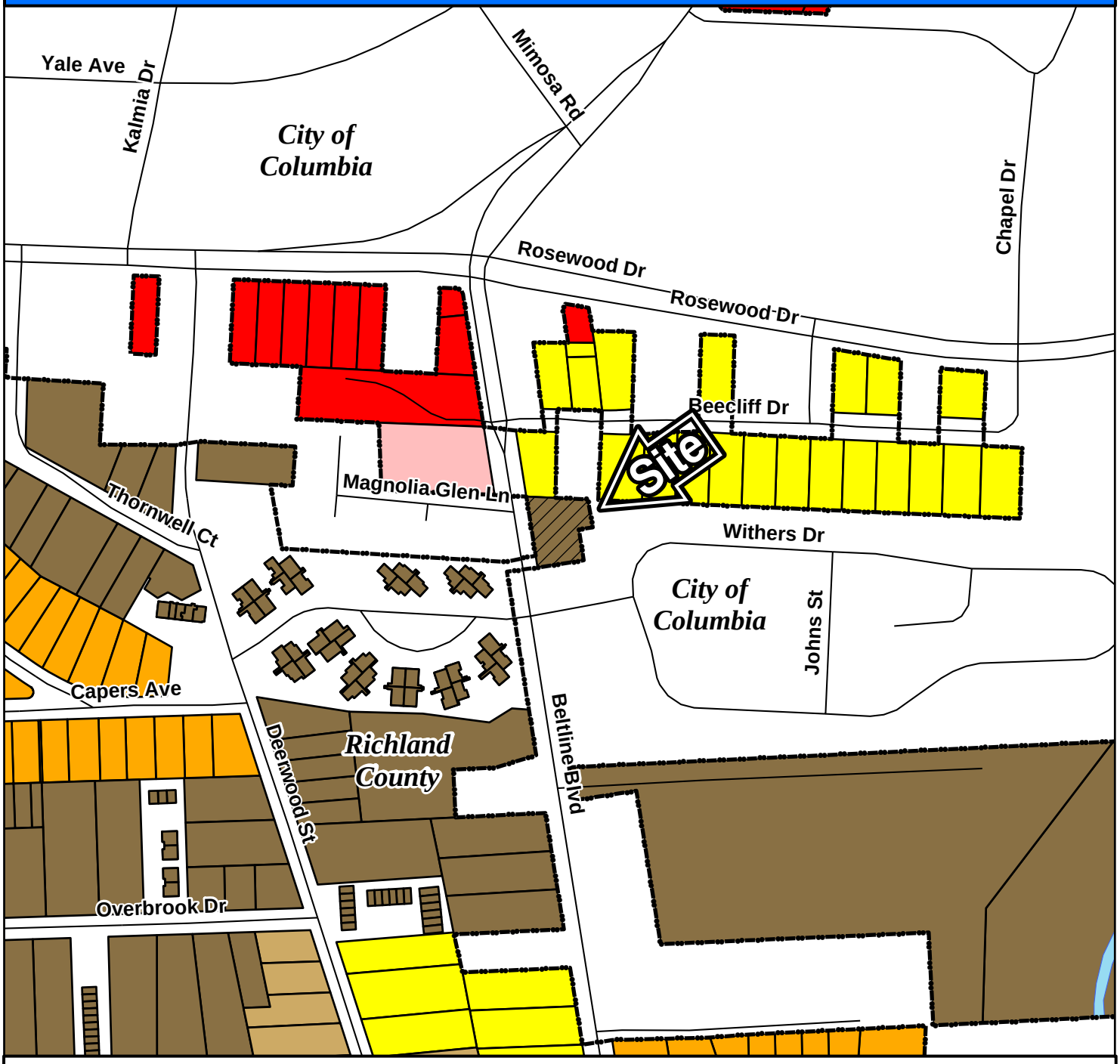
The Office and Institutional District (OI) allows a number of commercial uses outright such as convenient stores with gas pumps and funeral homes services. The Residential Multi-Family High Density District (RM-HD) does not allow the majority of commercial uses permitted outright under the Office and Institutional District (OI). The Residential Multi-Family High Density District (RM-HD) differ in minimum lot area, maximum height, and parking compared to the Office and Institutional District (OI). The existing Residential Multi-Family High Density District (RM-HD) is more in character with the surrounding area and land uses. Water and sewer service is available on site and is provided by the City of Columbia.

The proposed rezoning request **is not compatible** with the surrounding land uses. Planning Staff recommends **Denial** of this map amendment.

Zoning Public Hearing Date

January 26, 2010

Case 10-01 MA
RM-HD to OI

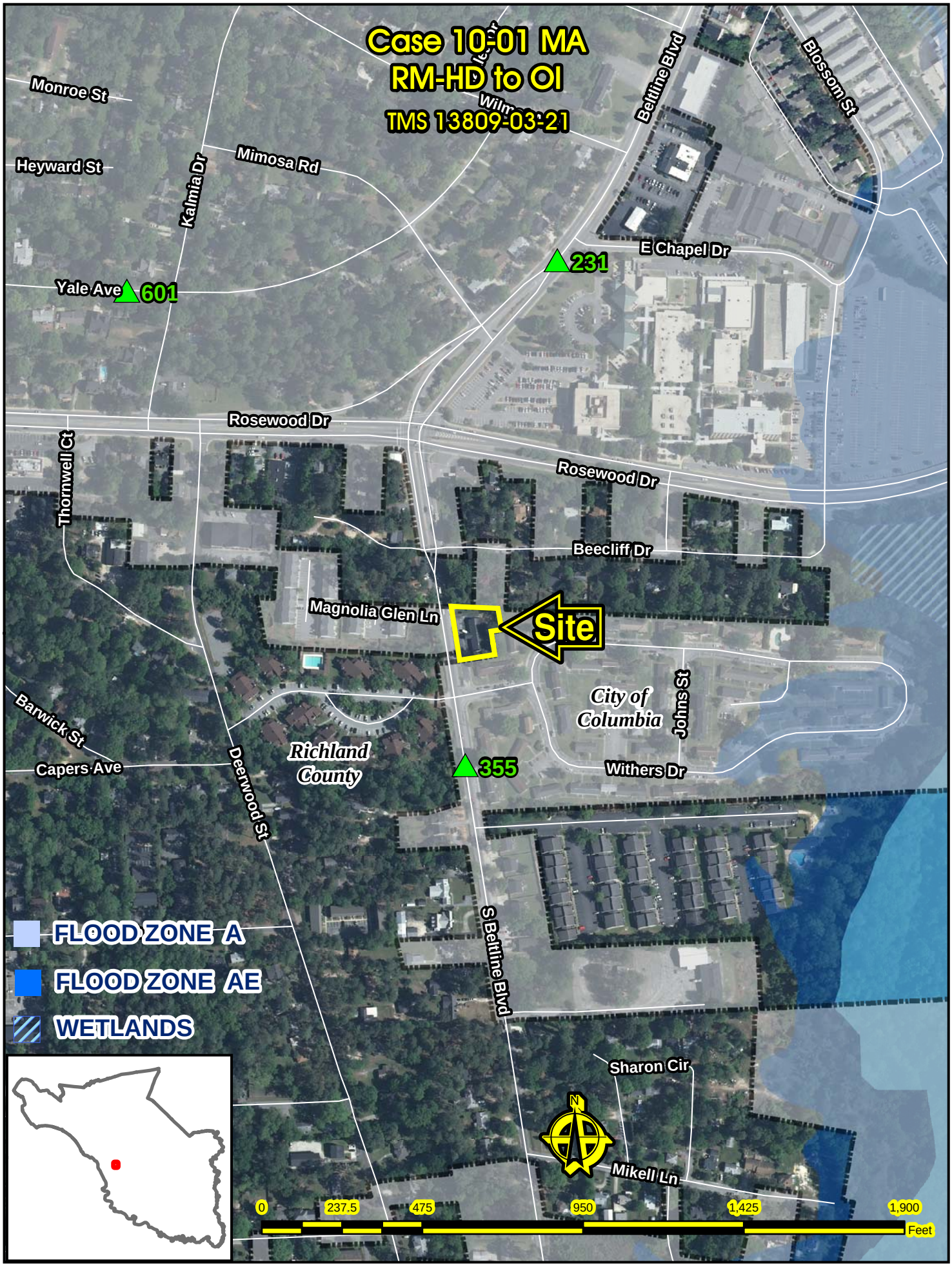


ZONING CLASSIFICATIONS

RR	RS-E	MH	NC	HI
C-1	RS-LD	RM-MD	GC	PDD
C-3	RS-MD	RM-HD	M-1	RU
RG-2	RS-HD	OI	LI	TROS

N

Subject Property


Case 10-01 MA
RM-HD to OI
TMS 13809-03-21
Monroe St
Heyward St
Kalmia Dr
Mimosa Rd
Yale Ave
601
231
E Chapel Dr
Beltline Blvd
Blossom St
Rosewood Dr
Thornwell Ct
Rosewood Dr
Beecliff Dr
Magnolia Glen Ln
Site
City of Columbia
Johns St
Barwick St
Capers Ave
Richland County
355
Withers Dr
Deerwood St
S Beltline Blvd
Sharon Cir
Mikell Ln
FLOOD ZONE A
FLOOD ZONE AE
WETLANDS
N
0
237.5
475
950
1,425
1,900
Feet

CASE 10-01 MA
From RM-HD to OI

TMS# 13809-03-21 302 South Beltline Boulevard

Looking East at site from South Beltline Blvd

Looking South of site along South Beltline Blvd

STATE OF SOUTH CAROLINA
COUNTY COUNCIL FOR RICHLAND COUNTY
ORDINANCE NO. ___–10HR

AN ORDINANCE AMENDING THE RICHLAND COUNTY CODE OF ORDINANCES; CHAPTER 26, LAND DEVELOPMENT; SO AS TO IMPROVE RICHLAND COUNTY'S WATER QUALITY, PROTECT THE ENVIRONMENT, AND COMPLY WITH THE COUNTY'S NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS.

Pursuant to the authority granted by the Constitution and the General Assembly of the State of South Carolina, BE IT ENACTED BY THE RICHLAND COUNTY COUNCIL:

SECTION I. The Richland County Code of Ordinances, Chapter 26, Land Development; Article II, Rules of Construction/Definitions; Section 26-22, Definitions; is hereby amended to include in the appropriate alphabetical order, the following definitions:

Accidental Discharge. A discharge prohibited by this section into the Richland County Stormwater System or receiving waters, which occurs by chance and without planning or consideration prior to occurrence. Accidental discharges do not include any discharges associated with other regulatory program elements, such as sanitary sewer overflows (SSOs) or other activities covered under NPDES permits or sanitary sewer pre-treatment requirements.

Accidental Damage. Damage to any portion of the Richland County Stormwater Systems, which occurs by chance and without planning or consideration prior to occurrence.

Best Management Practices (Stormwater Management). A structural or nonstructural management-based practice used singularly or in combination to reduce nonpoint source inputs to receiving waters in order to achieve water quality and quantity protection goals.

Best Management Practices (BMP) Design Manual (Stormwater Management). The manual of design, performance and review standards for stormwater management BMPs to be used in Richland County. The requirements established by the BMP Manual are mandatory.

Clean Water Act. The Federal Water Pollution Control Act, as amended, codified at 33 U.S.C. §§ 1252 et seq.

Entitled Property. Any property that, prior to [insert date that this ordinance was adopted], has received land development, sketch plan, or preliminary plan approval.

Erosion and sediment control plan. A plan which adequately describes necessary land management practices and control measures, including a timetable or schedule for their installation, which will effectively minimize soil erosion and sedimentation; prepared and approved as provided herein for application to a particular land area. This plan shall be incorporated into the SWPPP.

~~*Grading permit*. A certificate issued to perform work pursuant to an approved erosion and sediment control plan prepared under the provisions of this chapter.~~

Illicit Connection. A connection to a stormwater system that results in a discharge that is not composed entirely of stormwater run-off; provided, however, this does not include discharges pursuant to an NPDES permit (other than the NPDES permit issued for the Richland County stormwater system and its co-permittees).

Illegal Discharge. Any activity that results in a discharge to a stormwater system or receiving waters that is not composed entirely of stormwater; provided, however, this does not include: (a) discharge pursuant to an NPDES permit (other than the NPDES permit issued for the Richland County stormwater system and its co-permittees), (b) discharges resulting from fire-fighting activities, and (c) any activity specifically addressed in this Code of Ordinances or by Richland County as not being significant sources of pollution.

Illicit Discharge Detection and Elimination Program (IDDE) Program. The third Minimum Control Measure of the Stormwater Phase II Rule; it is a program, employing a plan that should include procedures for locating priority areas likely to have illicit discharges, procedures for tracing the source of an illicit discharge, procedures for removing the source of the discharge, and procedures for program evaluation and assessment.

Illegal Dumping. The disposal of waste in an unpermitted area or the pouring of liquid wastes or trash into stormwater drains.

Inflow and Infiltration. Groundwater or stormwater entering into a sanitary sewer system as a result of damaged collection lines or manholes or from direct stormwater connections, such as from catch basins or roof drains.

Improper Disposal. Any disposal other than through an illicit connection that results in an illegal discharge, including, but not limited to, the disposal of used oil, toxic materials or other hazardous liquids or substances resulting from the improper management of these materials.

Jurisdictional line. A line identified or approved by the U.S. Army Corp of Engineers describing areas to be protected under the Federal Clean Water Act.

Land Disturbance Permit. A certificate issued by Richland County to perform work pursuant to an approved SWPPP prepared under the provisions of this chapter. It is issued after DHEC issues coverage under *NPDES General Permit for Large and Small Construction Activities.*

Municipal Separate Storm Sewer System (MS4). Acronym used in the NDPES Stormwater Permit that is synonymous with stormwater system for the purposes of this chapter.

Non-linear projects. All construction activities and projects other than utility line installation, pipeline construction, and other examples of long, narrow, linear construction activities.

Non-stormwater Discharge. Any discharge to the stormwater system that is not comprised entirely of stormwater.

NPDES. National Pollutant Discharge Elimination System which is the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under §§ 307, 402, 318, and 405 of the federal Clean Water Act.

NPDES Stormwater Permit. The permit issued by DHEC under the primacy authority from the US Environmental Protection Agency that authorizes the discharge of pollutants, in this case stormwater, to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

Open Stormwater Conveyance. A permanent, designed waterway, shaped, sized and lined with appropriate vegetation or structural material used to safely convey stormwater runoff within or away from developing areas.

Owner/Operator. For the purpose of this chapter and in the context of stormwater associated with construction activity, means any party associated with a construction project that meets either of the following two criteria:

(a) The party has operational control over construction plans and specifications. Note: A party has "operational control over construction plans and specifications" if they have the authority to prepare or modify Stormwater Pollution Prevention Plans (SWPPPS); or

(b) The party has "operational control over day-to-day activities" at a Project that are necessary to ensure compliance with a SWPPP for the Site or other permit conditions (e.g., they are authorized to direct workers at a Site to carry out activities required by the SWPPP or comply with other permit conditions). This definition is provided to inform permittees of EPA's interpretation of how the regulatory definitions of "Owner or Operator" and "facility or activity" are applied to discharges of storm water associated with construction activity.

Pollutant. Dredged spoil; solid waste; incinerator residue; sewage; garbage; sewage sludge; munitions; medical waste; chemical wastes; biological materials; radioactive materials; heat; wrecked or discarded equipment; rock; sand; cellar dirt; municipal, agricultural and industrial waste; and certain characteristics of wastewater (e.g. pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor). A foreign substance, that if permitted to get into the public water system, will degrade its quality so as to constitute a moderate hazard, or impair the usefulness or quality of the water to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably affect such water for domestic use.

Sanitary sewer overflows (SSOs). Discharges of untreated sewage from municipal sanitary sewer systems, without first passing through a wastewater treatment plant, as a result of broken pipes, equipment failure, or system overload. An SSO is a public health hazard and a violation of federal, state and local discharge regulations.

Sanitary Sewer Pre-Treatment. The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into a sanitary sewer system. The reduction or alteration may be obtained by physical, chemical, or biological processes, process changes or by other means, except as prohibited by the Clean Water Act.

Seepage. Percolation of underground water through the banks and into a stream or other body of water, or into or out of a sewer.

Septage. The liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system or a holding tank when the system is cleaned or maintained.

Storm Drainage Design Standards. The manual of design, performance and review standards for stormwater management, prepared under the direction of the county engineer, with input from stakeholders. The requirements established by the Design Standards are mandatory, and shall be updated as often as necessary.

Stormwater. Any surface flow, runoff and drainage consisting entirely of water from any form of natural precipitation and resulting from such precipitation.

Stormwater Outfall. The point at which a stormwater system discharges to the receiving waters.

Stormwater Pollution Prevention Plan (SWPPP). A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to Stormwater, Stormwater Conveyance Systems, and/or Receiving Waters to the Maximum Extent Practicable.

Stormwater System. The publicly-owned facilities by which stormwater is collected and/or conveyed, including, but not limited to roads with drainage systems, streets, gutters, curbs, inlets, piped storm drains, pumping facilities, basins, drainage channels or other drainage structures.

Total Maximum Daily Load (TMDL). The sum of the individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure.

USACE. The United States Army Corp of Engineers.

Wastewater. Any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

Water Quality Protection Areas. The areas that come under current SCDHEC 303 (d) list, TMDL sites, Environmental Protection Districts that are identified by Richland County Council, and any other areas that are identified by SCDHEC or Richland County Council

SECTION II. The Richland County Code of Ordinances, Chapter 26, Land Development; Article III, Administration; Section 26-35, Richland County Planning and Development Services Department; Subsection (b), Specific Powers and Duties of Certain Planning Department Officers; Paragraph (4) Flood coordinator; Subparagraphs a and b; are hereby amended to read as follows:

a. To review all applications for zoning and ~~grading~~ land disturbance permits within the FP Overlay District to assure that all applicable requirements of this chapter have been satisfied.

b. To advise any applicant for a zoning and/or ~~grading~~ land disturbance permit within the FP Overlay District that additional federal or state permits may be required and require that copies of any permits or permit applications for activities on the proposed site be provided and maintained on file with the flood coordinator.

SECTION III. The Richland County Code of Ordinances, Chapter 26, Land Development; Article III, Administration; Section 26-36, Richland County Engineer; is hereby amended to read as follows:

Sec. 26-36. Richland County Engineer/Stormwater Manager.

(a) *Powers and duties pursuant to this chapter.* The Richland County Engineer/Stormwater Manager, under the direction of the Richland County Public Works Director, shall have the following powers and duties in administering and implementing Article VIII. of this chapter and other relevant laws and regulations pertaining to stormwater management and erosion and sediment control in Richland County.

(1) To review and approve/deny all plans for stormwater management to assure that all applicable requirements of this chapter have been satisfied.

(2) To enforce all provisions of the stormwater management and erosion and sediment control provisions of this chapter and other relevant laws and regulations relating to stormwater management. (See Sections 26-64, 26-202 and 26-203 of this chapter).

(3) To review and approve/deny all applications for ~~grading~~ land disturbance permits to assure that all applicable requirements of this chapter have been satisfied.

(4) To interpret the terms and provisions of Article VIII. of this chapter.

~~(5) To enforce all provisions of the erosion and sediment control provisions of this chapter and other relevant laws and regulations relating to erosion and sediment control. (See Sections 26-64 and 26-202 of this chapter).~~

(b) *Reserved.*

SECTION III. The Richland County Code of Ordinances, Chapter 26, Land Development; Article IV, Amendments and Procedures; Section 26-51, General; Subsection (a), Permits/approval types; is hereby amended to read as follows:

(a) *Permits/approval types*. Any development within the jurisdiction of Richland County may require one or more of the permits and approvals detailed in this article to ensure that the development is consistent with the goals and purposes of this chapter and with the public health, safety and general welfare. Permits and approvals include, but are not necessarily limited to, the following:

Land Development Permits (Land Development Compliance Review, Minor Land Development Review and Major Land Development Review). (Section 26-53).

Subdivision Review and Approval. (Section 26-54).

Permitted Uses with Special Requirements. (Section 26-55).

Special Exceptions. (Section 26-56).

Variances. (Section 26-57).

Appeals of Administrative Decisions. (Section 26-58).

Planned Development Review and Approval. (Section 26-59).

Certificates of Zoning Compliance. (Section 26-60).

Review in the FP Floodplain Overlay District. (Section 26-61).

Sign Permits. (Section 26-62).

Temporary Use Permits. (Section 26-63).

~~Stormwater Management Design Plans. (Section 26-64).~~

~~Grading~~ Land Disturbance Permits with approved Stormwater Pollution Prevention Plans. (Section 26-~~65~~64).

Applications for all permits or approvals, unless otherwise specified, ~~may~~ shall be made at the Richland County Planning and Development Services Department. The review

procedures described in this article are those required by Richland County. Other agencies and/or departments may have separate procedures that must be followed in order to obtain plan approval. Those agencies must be contacted to obtain information regarding the proper procedure for approval of plans and construction.

SECTION IV. The Richland County Code of Ordinances, Chapter 26, Land Development; Article IV, Amendments and Procedures; Section 26-64, Stormwater Management Design Plans; is hereby amended to read as follows:

Sec. 26-64. Stormwater ~~management design~~ pollution prevention plans.

~~(a) *Purpose.* Unless otherwise provided in this chapter, any construction or other development affecting the quantity and/or quality of stormwater runoff, or that is located in an area of special flood hazard, shall be required to submit a stormwater management design plan prior to the issuance of a building permit. The purpose of this requirement is to provide proper management of the quality and quantity of stormwater runoff in Richland County. (See Section 26-203 of this chapter). No building permit shall be issued until the required drainage improvements, as set forth in an approved design plan, are installed or an acceptable bond is posted in lieu of completion of the improvements.~~

~~(b) *Pre-application procedure.* No pre-application conference is required prior to the submittal of a stormwater management design plan. Applicants are encouraged to call or visit the county engineer prior to submitting a stormwater management design plan to determine what information is required for the application.~~

~~(c) *Plan submittal.*~~

~~(1) *Application.* Application for approval of a stormwater management design plan shall be made to the county engineer on forms furnished by the county and shall include all items required on that application. Application may be made by the owner of the property or by an authorized agent. The stormwater management design plan shall be prepared and submitted in both a paper and a digital format as specified by the County, and shall include such stream flow and stormwater runoff calculations and other information as may be reasonably required by the county engineer under the requirements of this chapter. The stormwater management design plan shall be certified by the applicant and sealed by a South Carolina Registered Professional Civil Engineer, Registered Landscape Architect, or Tier B. Land Surveyor.~~

~~(2) *Inclusion in other permit requirements.* The requirement for submittal of a stormwater management design plan may be included under other permits as follows:~~

~~a. The county may review industrial storm water pollution preventions plan(s), as required under a facility's National Pollutant Discharge Elimination System (NPDES) storm water discharge permit, when outfall monitoring indicates a suspected violation.~~

b. The county may review reclamation plan(s), as required under a mining and mineral resource extraction operation's operating permit, when outfall monitoring indicates a suspected violation.

c. The county may review certificate(s) of environmental compatibility, as required by the South Carolina Public Service Commission, when outfall monitoring indicates a suspected violation of a utility.

(d) *Staff review*. The county engineer shall review all stormwater management design plans and approve or deny such plans. Approval or denial of a stormwater management design plan shall be based on all applicable provisions of this chapter. Stormwater management design plans shall be reviewed within thirty (30) days from the date of submittal of the plan. If the county engineer determines that the size and scope of the proposed plan requires additional time for adequate review, the review period shall be extended as determined appropriate by the county engineer, but in no event shall the review period exceed forty-five (45) days. If at the end of the forty-five (45) day period a decision has not been reached, the plan shall be deemed approved; however, the applicant may waive this requirement and consent in writing to the extension of that period. In the absence of an appeal, the order of the county engineer shall be final. Approval of plans by the county engineer does not relieve the applicant's technical representative from his/her responsibility for the correctness of the plans or the accuracy of his/her calculations, nor does it relieve the owner or the applicant from their obligation to comply with any applicable laws.

(e) *Public notification*. No public notification is required for review of a stormwater management design plan.

(f) *Formal review*. No formal review is required for stormwater management design plan review.

(g) *Variances*. No variances are permitted from the regulations on stormwater management.

(h) *Appeals*. Any owner who has received a decision from the county engineer may appeal this decision to a court of competent jurisdiction, which shall hear the same de novo. Such an appeal shall be filed within thirty (30) days after the county engineer has notified the owner/applicant of his/her decision.

(i) *Permit validity*. The effective date of a stormwater management development plan shall be the date as stamped on the plan. Plans shall be valid only when signed by the county engineer. Any stormwater management design plan approval issued shall become invalid if the authorized work is not commenced within six (6) months after the issuance of the approval, or if the authorized work is suspended or abandoned for a period of six (6) months after the time of commencing the work, unless an extension has been granted in writing by the county engineer.

(a) *Purpose*. Unless otherwise provided in this chapter, a land disturbance permit shall not be issued for any purpose except in accordance with a Stormwater Pollution Prevention Plan (SWPPP) that has been approved by the Richland County Public Works Department. In addition, prior to any grading, construction, or land disturbance of any nature, a land disturbance permit shall be obtained from Richland County. The SWPPP shall include a plan to control erosion and sedimentation and provide for stormwater management (See Section 26-202 of this chapter). The purpose of this requirement is to provide proper management of the quality and quantity of stormwater runoff in Richland County. The SWPPP must be approved prior to the issuance of a land development permit, floodplain development permit or building permit. No land disturbance permit shall be issued until DHEC grants coverage under the NPDES General Permit for Large and Small Construction Activities, if applicable. No building permit shall be issued until the required drainage improvements, as set forth in an approved design plan, are installed or an acceptable bond is posted in lieu of completion of the improvements. The approved SWPPP must be maintained at the active construction site until a Notice of Termination is issued. In addition, a copy of the NOI, General NPDES General Permit for Large and Small Construction Activities, and letter from SCDHEC granting coverage under the NPDES General Permit for Large and Small Construction activities must be maintained at the site at all times until a Notice of Termination is issued.

(b) *Exemptions*. The provisions of this section shall not apply to:

(1) Land disturbing activities on agricultural land for production of plants and animals useful to man, including but not limited to: forages and sod crops, grains and feed crops, poultry and poultry products; livestock, including beef cattle, sheep, swine, horses, ponies, mules, or goats, including the breeding and grazing of these animals; bees; fur animals and aquaculture; except that the construction of an agricultural structure or structures which, singularly or collectively total one or more acres, such as broiler houses, machine sheds, repair shops and other major buildings and which require the issuance of a building permit shall require the submittal and approval of a SWPPP prior to the start of the land disturbing activity.

(2) Land disturbing activities undertaken on forest land for the production and harvesting of timber and timber products.

(c) *Pre-application procedure*. No pre-application conference is required prior to the submittal of a SWPPP for a Land Disturbance Permit. Applicants are encouraged to call or visit the county engineer prior to submitting a SWPPP to determine what information is required for the application for the approval.

(d) *Plan submittal*.

(1) *Application*. Application for approval of a SWPPP shall be made on forms furnished by the county and shall include all items required on that application and shall be accompanied by a fee as established by the Richland County Council. Application may be made by the owner of the property or by an authorized agent.

If any construction or land disturbance activities are to take place in any unincorporated Richland County, the owner/operator must apply for a Land Disturbance Permit before land is disturbed. The SWPPP shall include such stream flow and stormwater runoff calculations and other information as may be reasonably required by the county engineer under the requirements of this chapter. The SWPPP shall be certified by the applicant and sealed by a South Carolina registered professional engineer, registered landscape architect, or Tier B land surveyor. The SWPPP must meet the objectives of Section 26-203. A landowner may develop and certify his/her own plan for a tract of land containing one (1) acre or less, provided:

a. The property is not part of a larger common disturbance impacting more than one acre; and

b. Water shall not be allowed to flow in any one (1) direction more than two hundred (200) feet over disturbed land; and

c. The cuts and fills established will not exceed a height or depth of over five (5) feet; and

d. There will be no concentrated off-site water to be controlled on the site.

(2) *Inclusion in other permit requirements*. The requirement for submittal of a SWPPP may be included under other permits as follows:

a. The county may review industrial Storm Water Pollution Preventions Plan(s), as required under a facility's National Pollutant Discharge Elimination System (NPDES) storm water discharge permit, when outfall monitoring indicates a suspected violation.

b. The county may review reclamation plan(s), as required under a mining and mineral resource extraction operation's operating permit, when outfall monitoring indicates a suspected violation.

c. The county may review certificate(s) of environmental compatibility, as required by the South Carolina Public Service Commission, when outfall monitoring indicates a suspected violation of a utility.

(3) *Fees.*

(e) *Types of Stormwater Pollution Prevention Plans (SWPPP).* SWPPPs shall be divided into two land disturbance levels: Level I and Level II. The designs, presentations and submittals shall be the responsibility of the person responsible for the land disturbing activity.

(1) Level I Stormwater Pollution Prevention Plans (SWPPPs) shall be submitted for all land disturbing activities with disturbed area less than one (1) acre which are not part of a larger common plan of development or sale. A Level I Plan shall be prepared in accordance with the requirements of Section 26-64(f) of this chapter.

(2) Level II Stormwater Pollution Prevention Plans (SWPPPs) shall be submitted for all land disturbing activities with disturbed areas of one (1) acre or greater. However, the use of measures other than ponds to achieve water quality improvements is recommended on sites containing less than ten (10) disturbed acres. A Level II Plan shall be prepared in accordance with the requirements of Section 26-64(g) of this chapter.

(f) *Level I SWPPP Requirements*. A Level I SWPPP shall be submitted for all land disturbing activities with disturbed area less than one (1) acre which are not part of a larger common plan of development. The SWPPP shall contain the following information, as applicable:

(1) An anticipated starting and completion date of the various stages of land disturbing activities and the expected date the final stabilization will be completed;

(2) A narrative description of the SWPPP to be used during land disturbing activities;

(3) General description of topographic and soil conditions of the tract;

(4) A general description of adjacent property and a description of existing structures, buildings, and other fixed improvements located on surrounding properties;

a. The boundary lines of the site on which the work is to be performed;

b. A topographic map of the site if required by the County;

c. The location of temporary and permanent vegetative and structural stormwater management and sediment control measures; and

d. Water quality buffers and setbacks requirements to protect receiving water bodies shall be maintained as required.

(5) SWPPPs shall contain certification by the person responsible for the land disturbing activity that the land disturbing activity will be accomplished pursuant to the plan.

(6) All SWPPPs shall contain certification by the person responsible for the land disturbing activity of the right of the County or DHEC to conduct on-site inspections

The requirements contained above may be indicated on one plan sheet. More detailed hydrologic or soils information may be required on a case by case basis by the implementing agency. Storm water detention/retention may be required if excessive water problems are known to exist in the area.

(g) *Level II SWPPP Requirements*. A Level II Stormwater Pollution Prevention Plan (SWPPP) shall be submitted for all land disturbing activities with disturbed areas of one (1) acre or greater, and for all land disturbing activities with disturbed areas of less than one (1) acre if it is part of multiple construction in a subdivision development. The use of measures other than ponds to achieve water quality improvements is recommended on sites containing less than ten (10) disturbed acres. All of the requirements included in the most recent version of the Storm Drainage Design Standards must be met. The SWPPP shall contain the following information, as applicable:

(1) General submission requirements for all projects requiring Stormwater Pollution Prevention Plan (SWPPP) approval will include the following information as applicable:

a. A standard application form (Notice of Intent (NOI)) must be submitted to the County,

b. A vicinity map indicating north arrow, scale, and other information necessary to locate the property or tax parcel,

c. A current existing aerial photo of the site, as taken from the County's Internet Mapping Service (IMS).

d. A plan at an appropriate scale accompanied by a design report and indicating at least:

1. The location of the land disturbing activity shown on a USGS 7.5 minute topographic map or copy.

2. The existing and proposed topography, overlaid on a current plat showing existing and proposed contours as required by Richland County.

3. The proposed grading and earth disturbance including:

i. Surface area involved; and

ii. Limits of grading including limitation of mass clearing and grading whenever possible.

4. Stormwater management and stormwater drainage computations, including:

i. Pre- and post-development velocities, peak rates of discharge, and inflow and outflow hydrographs of stormwater runoff at all existing and proposed points of discharge from the site,

ii. Site conditions around points of all surface water discharge including vegetation and method of flow conveyance from the land disturbing activity, and

iii. Design details for structural controls.

5. Erosion and sediment control provisions, including:

i. Provisions to preserve topsoil and limit disturbance;

ii. Details of site grading; and

iii. Design details for structural controls which includes diversions and swales.

e. Federal Emergency Management Agency flood maps and federal and state wetland maps, where appropriate.

f. Plans and design reports shall be sealed by a qualified design professional. The design professional shall certify that the plans have been designed in accordance with approved stormwater-related ordinances, programs, regulations, standards and criteria.

g. Additional information necessary for a complete project review may be required by Richland County, as deemed appropriate. This additional information may include items such as public sewers, water lines, septic fields, wells etc.

h. All SWPPPs submitted for approval shall contain certification by the person responsible for the land disturbing activity that the land disturbing activity will be accomplished pursuant to the approved plan.

i. All SWPPPs shall contain certification by the person responsible for the land disturbing activity of the right of the County or DHEC to conduct on-site inspections.

j. All Level II SWPPPs submitted to the appropriate plan approval agency for approval shall be certified by the designer as stated in 26-64(c)(1).

(2) Specific requirements for the erosion and sediment control portion of the Stormwater Pollution Prevention Plan (SWPPP) approval process include, but are not limited to, the following items. Richland County may modify the following items for a specific project or type of project.

a. All plans shall include details and descriptions of temporary and permanent erosion and sediment control measures and other protective measures shown on the Stormwater Pollution Prevention Plan (SWPPP). Procedures in a Stormwater Pollution Prevention Plan (SWPPP) shall provide that all sediment and erosion controls are inspected at least once every seven (7) calendar days, or at least once every fourteen (14) calendar days and within twenty-four (24) hours of the end of a storm event of 0.5 inches or greater.

b. Specifications for a sequence of construction operations shall be contained on all plans describing the relationship between the implementation and maintenance of sediment controls, including permanent and temporary stabilization and the various stages or phases of earth disturbance and construction. The specifications for the sequence of construction shall, at a minimum, include the following activities:

1. Clearing and grubbing for those areas necessary for installation of perimeter controls;

2. Installation of sediment basins and traps;

3. Construction or perimeter controls;

4. Remaining clearing and grubbing;

5. Road grading;

6. Grading for the remainder of the site;

7. Utility installation and whether storm drains will be used or blocked until after completion of construction;

8. Final grading, landscaping, or stabilization; and

9. Removal of sediment controls.

The sequence of construction operations may be modified with prior approval by Richland County. In addition, if there is to be no construction activity for fourteen (14) or more days, the site must be temporarily stabilized.

c. The plans shall contain a description of the predominant soil types on the site, as described in the USDA comprehensive soils classification system.

d. When work in a live waterway is performed such as utility or road crossing, the appropriate BMPs shall be utilized to minimize encroachment, protect the water quality buffer, control sediment transport and stabilize the work area to the greatest extent possible during construction.

e. Vehicle tracking of sediments from land disturbing activities onto paved public roads shall be minimized by utilizing the appropriate BMPs.

f. Locations of all waters of the U.S. and State (including wetlands) shall be shown on the plan.

g. Locations of all preconstruction stormwater discharge points and post construction stormwater discharge points shall be shown on the plan.

(3) Specific requirements for the permanent stormwater Management portion of the Stormwater Pollution Prevention Plan (SWPPP) approval process include, but are not limited to, the following items. Richland County may modify the following items for a specific project or type of project.

a. Stormwater Management shall be addressed on a watershed basis to provide a cost-effective water quantity and water quality solution to the specific watershed problems. This Chapter provides general design requirements that must be adhered to in the absence of Designated Watershed specific criteria.

b. All hydrologic computations shall be accomplished using a volume based hydrograph method acceptable to Richland County. The storm duration for computational purposes for this method shall be the 24-hour rainfall event, applicable NRCS distribution with a 0.1 hour burst duration time increment. The rational and/or modified rational methods are acceptable for sizing individual culverts or storm drains that are not part of a pipe network or system and do not have a contributing drainage area greater than 20 acres. The storm duration for computational purposes for this method shall be equal to the time of concentration of the contributing drainage area or a minimum of 0.1 hours, whichever is less.

c. Stormwater Management requirements for a specific project shall be based on the entire area to be developed, or if phased, the initial submittal shall control that area proposed in the initial phase and establish a procedure for total site control, as shown the approved set of development plans.

d. Water quantity control is an integral component of overall Stormwater Management. The following design criteria for flow control are established for water quantity control purposes:

1. Post-development peak discharge rates shall not exceed pre-development discharge rates for the 2, 10 and 25-year frequency 24-hour duration storm event. The County may utilize a less frequent storm event (e.g. 50 or 100-year, 24- hour) to address existing or future stormwater quantity or quality problems.

2. Discharge velocities shall be reduced to provide a non-erosive velocity flow from a structure, channel, or other control measure or the velocity of the 10-year, 24-hour storm runoff in the receiving waterway prior to the land disturbing activity, whichever is greater.

3. Watersheds, including Designated Watersheds, which have well documented water quantity problems, may have more stringent or modified design criteria as determined by Richland County.

e. Water quality control is also an integral component of stormwater management. The following design criteria are established for water quality protection:

1. When ponds are used for water quality protection, the ponds shall be designed as both quantity and quality control structures. Sediment storage volume shall be calculated considering the clean out and maintenance schedules specified by the designer during the land disturbing activity. Sediment storage volumes may be predicted by the Universal Soil Loss Equation or methods acceptable to the County.

2. Stormwater runoff that drains to a single outlet from land disturbing activities which disturb ten acres or more shall be controlled during the land disturbing activity by a sediment basin where sufficient space and other factors allow these controls to be used until the final inspection. The sediment basin shall be designed and constructed to accommodate the anticipated activity and meet a removal efficiency of eighty percent (80%) suspended solids or 0.5 ML/L peak settleable solids concentration, whichever is less. The outfall device or system design shall take into account the total drainage area flowing through the disturbed area to be served by the basin.

3. Other practices may be acceptable to Richland County if they achieve an equivalent removal efficiency of eighty percent (80%) for suspended solids or 0.5 ML/L peak settable solids

concentration, which ever is less. The efficiency shall be calculated for disturbed conditions for the 10-year 24-hour design event.

4. Permanent water quality ponds having permanent pool shall be designed to store and release the first ½ inch of runoff from the entire site or the first one inch of runoff from the impervious area, whichever is greater, over a twenty-four (24)-hour period.

5. Permanent water quality ponds, not having permanent pool, shall be designed to release the first inch of runoff from the site over a twenty-four (24)-hour period.

6. Permanent infiltration practices, when used, shall be designed to accept, at a minimum, the first inch of runoff from all impervious areas.

7. Water quality buffers and setbacks required to protect receiving water bodies shall be maintained as required by this chapter.

8. Watersheds, including Designated Watersheds, which have been documented by Richland County or DHEC as impaired or have established Total Maximum Daily Loads (TMDLs), will have more stringent or modified design criteria as determined by Richland County.

9. For sites with storm water discharges to receiving water that is listed as impaired in South Carolina's 303(d) List of Impaired Waters the following requirements apply:

   i. If a TMDL that is applicable to stormwater construction discharges has been established and is in effect, the requirements of the NPDES General Permit for Large and Small Construction Activities must be met.

   ii. If a TMDL has not been established or is not in effect, the requirements outlined in Section 3.4 in NPDES Permit for Large and Small Construction Activities must be met.

10. Untreated storm water runoff from developed areas shall not be directly discharged to wetlands, as wetland boundaries are defined at the time of site plan approval.

11. Any storm sewers and/or constructed/altered channels that discharge into a water quality buffer area shall be constructed in such a way as to dissipate the energy of flow and create even sheet flow into the buffer area.

f. Where ponds are the proposed method of control, the person responsible for the land disturbing activity shall submit to Richland County, when required, an analysis of the impacts of stormwater flows downstream in the watershed for the 10 and 100-year frequency storm event. The analysis shall include hydrologic and hydraulic calculations necessary to determine the impact of hydrograph timing modifications of the proposed land disturbing activity, with and without the pond. The results of the analysis will determine the need to modify the pond design or to eliminate the pond requirement. Lacking a clearly defined downstream point of constriction, the downstream impacts shall be established, with the concurrence of the County.

g. Where existing wetlands are intended as a component of an overall stormwater management system, the approved Stormwater Pollution Prevention Plan (SWPPP) shall not be implemented until all necessary federal and state permits have been obtained. Copies of the Federal and State permits shall be furnished to Richland County.

h. Designs shall be in accordance with standards developed or approved by the County. The Richland County Public Works Department maintains the Stormwater Design Manual and the Best Management Practices (BMP) Manual and these guidelines must for followed.

i. Ease of maintenance must be considered as a site design component. Access to the stormwater management structure must be provided. A maintenance plan shall be included in the SWPPP.

j. A clear statement of defined maintenance responsibility shall be established during the plan review and approval process. This statement ensures that structural BMPs will be maintained post-construction. If they are not being properly maintained, the County has the authority to require maintenance to be done at the expense of the person responsible for maintenance.

k. Infiltration practices have certain limitations on their use on certain sites. These limitations include the following items:

1. Areas draining to these practices must be stabilized and vegetative filters established prior to runoff entering the system. Infiltration practices shall not be used if a suspended solids filter system does not accompany the practice. If vegetation is the intended filter, there shall be, at least a twenty (20)-foot length of vegetative filter prior to stormwater runoff entering the infiltration practice;

2. The bottom of the infiltration practice shall be at least 0.5 feet above the seasonal high water table, whether perched or regional, determined by direct piezometer measurements which can be demonstrated to be representative of the maximum height of the water table on an annual basis during years of normal precipitation, or by the depth in the soil at which mottling first occurs;

3. The infiltration practice shall be designed to completely drain of water within seventy-two (72) hours;

4. Soils must have adequate permeability to allow water to infiltrate. Infiltration practices are limited to soils having an infiltration rate of at least 0.30 inches per hour. Initial consideration will be based on a review of the appropriate soil survey, and the survey may serve as a basis for rejection. On-site soil borings and textural classifications must be accomplished to verify the actual site and seasonal high water table conditions when infiltration is to be utilized;

5. Infiltration practices greater than three feet deep shall be located at least ten (10) feet from basement walls;

6. Infiltration practices designed to handle runoff from impervious parking areas shall be a minimum of one hundred fifty (150) feet from any public or private water supply well;

7. The design of an infiltration practice shall provide an overflow system with measures to provide a non-erosive velocity of flow along its length and at the outfall;

8. The slope of the bottom of the infiltration practice shall not exceed five percent (5%). Also, the practice shall not be installed in fill material as piping along the fill/natural ground interface may cause slope failure;

9. An infiltration practice shall not be installed on or atop a slope whose natural angle of incline exceeds twenty percent (20%).

10. Clean outs will be provided at a minimum, every one hundred (100) feet along the infiltration practice to allow for access and maintenance.

l. A regional approach to Stormwater Management is an acceptable alternative to site-specific requirements and is encouraged.

(4) All stormwater management and sediment control practices shall be designed, constructed and maintained with consideration for the proper control of mosquitoes and other vectors. Practices may include, but are not limited to:

a. The bottom of retention and detention ponds should be graded and have a slope not less than 1.0 percent.

b. There should be no depressions in a normally dry detention facility where water might pocket when the water level is receding.

c. Normally dry detention systems and swales should be designed to drain within three (3) days.

d. An aquatic weed control program should be utilized in permanently wet structures to prevent an overgrowth of vegetation in the pond. Manual harvesting is preferred.

e. Fish may be stocked in permanently wet retention and detention ponds.

(5) A Stormwater Pollution Prevention Plan (SWPPP) shall be filed for a residential development and the buildings constructed within, regardless of the phasing of construction.

a. In applying the stormwater management and sediment control criteria, individual lots in a residential subdivision development shall not be considered to be separate land disturbing activities and shall not require individual permits. Instead, the residential subdivision development, as a whole, shall be considered to be a single land disturbing activity. Hydrologic parameters that reflect the ultimate subdivision development shall be used in all engineering calculations.

b. If individual lots or sections in a residential subdivision are being developed by different property owners, all land-disturbing activities related to the residential subdivision shall be covered by the approved Stormwater Pollution Prevention Plan (SWPPP) for the residential subdivision. Individual lot owners or developers must sign a certification of compliance that all activities on that lot will be carried out in accordance with the approved Stormwater Pollution Prevention Plan (SWPPP) for the residential subdivision. Failure to provide this certification will result in owners or developers of individual lots developing a Stormwater Pollution Prevention Plan (SWPPP) meeting the requirements of this chapter.

c. Residential subdivisions which were approved prior to the effective date of these regulations are exempt from these requirements. Development of

new phases of existing subdivisions which were not previously approved shall comply with the provisions of these regulations.

(6) Risk analysis may be used to justify a design storm event other than prescribed or to show that rate and volume control is detrimental to the hydrologic response of the basin and therefore, should not be required for a particular site.

a. A complete watershed hydrologic/hydraulic analysis must be done using a complete model/procedure acceptable to Richland County. The level of detail of data required is as follows:

1. Watershed designation on the 7.5 minute topo map exploded to a minimum of 1" = 400'.

i. Include design and performance data to evaluate the effects of any structures which affect discharge. Examples may be ponds or lakes, road crossings acting as attenuation structures, and others which must be taken into account.

ii. Land use data shall be taken from the most recent aerial photograph and field checked and updated.

iii. The water surface profile shall be plotted for the conditions of pre and post-development for the 10-, and 100-year 24-hour storm.

iv. Elevations of any structure potentially damaged by resultant flow shall also be shown.

b. Based on the results of this type of evaluation, the Public Works Department shall review and evaluate the proposed regulation wavier or change.

(7) The Level II SWPPP shall be prepared in accordance with South Carolina NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities (SCR100000). The SWPPP must be prepared, amended when necessary, certified, and stamped by a qualified individual who is licensed as follows:

a. Registered professional engineers as described in Title 40, Chapter 22:

b. Registered landscape architects as described in Title 40, Chapter 28, Section 10, item (b);

c. Tier B land surveyors as described in Title 40, Chapter 22; or

d. Federal government employees as described by Title 40, Chapter 22, Section 280(A)(3).

(h) *Staff review*. The county engineer shall review all SWPPPs and approve or deny such plans. Approval or denial of a SWPPP shall be based on all applicable provisions of this chapter. SWPPPs shall be reviewed within thirty (30) days from the date of submittal of the plan. If the county engineer determines that the size and scope of the proposed plan requires additional time for adequate review, the review period shall be extended as determined appropriate by the county engineer, but in no event shall the review period exceed forty-five (45) days. If at the end of the forty-five (45) day period a decision has not been reached, the plan shall be deemed approved; however, the applicant may waive this requirement and consent in writing to the extension of that period. In the absence of an appeal, the order of the county engineer shall be final. Approval of plans by the county engineer does not relieve the applicant's technical representative from his/her responsibility for the correctness of the plans or the accuracy of his/her calculations, nor does it relieve the owner or the applicant from his/her obligation to comply with any applicable laws. Upon review and approval by Richland County, the approval letter to issue a land disturbance permit, the Notice of Intent and the $125 fee will be sent to DHEC. DHEC then has seven (7) business days to review the completed application and issue a letter either granting or denying coverage under the NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities (SCR100000), or requesting additional information. If DHEC does not send a letter within the designated time period, then coverage under the above permit may be deemed automatically granted.

(i) *Public notification*. No public notification is required for review of a SWPPP.

(j) *Formal revi*ew. No formal review is required for SWPPP review.

(k) *Permit validity*. The effective date of a SWPPP shall be the date the Public Works Department approved the plan. Plans shall be valid only when signed by the county engineer. Any SWPPP approval issued shall become invalid if the authorized work is suspended or abandoned for a period of six (6) months after the time of commencing the work, or if the work is not completed within two (2) years, unless an extension has been granted in writing by the county engineer. The applicant is responsible for requesting an extension and setting forth reasons for the requested extension. No more than four (4) 1-year extensions shall be granted. An annual plan review fee and inspection fee shall be paid each time a request is made for an extension. The applicant shall be responsible with carrying out the proposed work in accordance with the approved SWPPP. The applicant shall be responsible for notifying Richland County Public Works Department a maximum of twenty-four (24) hours after the start of construction.

(l) *Inspections*. The SWPPP shall specify the inspection frequency for the land disturbance activity which must be done in accordance with the NPDES General Permit for Large and Small Construction Activities. The county engineer or his/her designee shall periodically inspect the work done under an approved SWPPP. Any violations will be enforceable as established in this chapter. For each inspection, an inspection report must be

completed. A record of each inspection and any actions taken must be retained as part of the SWPPP for at least three (3) years. Permittee Inspection Frequency after construction commences, inspections must be conducted by an inspector meeting at least one of the requirements in Section 26-64(g)(7), at a minimum of one of the two schedules defined below:

(1) At least once every seven (7) calendar days, or

(2) At least once every fourteen (14) calendar days and within twenty-four (24) hours of the end of a storm event of 0.5 inches or greater.

(m) *Preconstruction Conference*.

(1) For non-linear Projects that disturb ten (10) acres or more, the permittee must conduct a pre-construction conference with each co-permittee and contractor who is not a co-permittee in person at the Site prior to that co-permittee or contractor performing construction related work intended to disturb soils at the Site that may affect the implementation of the SWPPP unless it is justified in the SWPPP and approved by the County to conduct the conference off-site. This pre-construction conference can be with all contractors or the pre-conference may be conducted separately with one or more contractors present so that all contractors who perform land disturbing activity are aware of the requirements of the SWPPP before they start construction

(2) For linear construction of roads or utilities (such as roads built by SCDOT, utility construction including electrical power lines, gas lines, sewer lines, and water lines that are not part of a subdivision) neither of which is part of a subdivision or other type of development, the pre-construction conference may be conducted off-site unless specifically required by the County to be conducted on site. The purpose of this conference is to explain the whole SWPPP to the co-permittees and contractors, and to specifically go over areas of the SWPPP that are related to the work to be performed by the co-permittees and the contractors.

(n) *Monthly reporting requirements.* For land disturbance activities impacting ten (10) acres or more, there is a monthly reporting requirement in the NPDES General Permit for Large and Small Construction Activities which requires monthly reports to be submitted to DHEC. Richland County also requires these monthly reports be submitted to the Public Works Department for review. These reports may be submitted electronically.

(o) *Notice of Termination (NOT).* The owner/operator of a site may apply for a NOT when seventy percent (70%) of the site is stabilized. The County has the authority to grant or deny the request for a NOT at its discretion. Any recurring fees will continue to be applicable until the NOT is submitted to Richland County and approved by SCDHEC. Richland County will forward the request for NOT to SCDHEC.

(p) *Supplemental regulations*. All applicable provisions of the Standards for Stormwater Management and Sediment Reduction (Sections 72-301, 302, 305, 307, 308, 312, 313, 314, 315, 316) administered by the South Carolina Department of Health and Environmental Control pursuant to the South Carolina Stormwater Management and Sediment Reduction Act of 1991 are incorporated by reference herein.

SECTION V. The Richland County Code of Ordinances, Chapter 26, Land Development; Article IV, Amendments and Procedures; Section 26-65, Grading Permits; is hereby deleted in its entirety, and shall hereafter read as follows:

~~**Sec. 26-65. Grading permits.**~~

~~(a) *Purpose*. Unless otherwise provided in this chapter, the surface of land in Richland County shall not be disturbed or changed for any purposes (see exceptions outlined in Section 26-202(a)) except in accordance with a plan for control of erosion and sedimentation that has been approved by the Richland County Public Works Department. In addition, prior to any grading, construction or land disturbances of any nature, a grading permit shall be obtained from the Richland County Public Works Department. A grading permit for a development may not be issued prior to the issuance of a land development permit and floodplain development permit (if applicable) for said development.~~

~~(b) *Pre-application procedure*. No pre-application conference is required prior to the submittal of an erosion and sediment control plan and an application for a grading permit. Applicants are encouraged to call or visit the county engineer prior to submitting an erosion and sediment control plan to determine what information is required for the approval.~~

~~(c) *Plan submittal*. Application for a grading permit shall be made to the public works department on forms furnished by the county and shall include all items required on that application, including a copy of the erosion and sedimentation control plan and shall be accompanied by a fee as established by the Richland County Council. The application may be filed by the property owner or by an authorized agent. The erosion and sediment control plan shall be prepared and submitted in both a paper and a digital format as specified by the County, and shall be certified by the applicant and sealed by a South Carolina Registered Professional Civil Engineer, Registered Landscape Architect, or Tier B. Land Surveyor. The plan must meet the objectives of Section 26-202(b). A landowner may develop and certify his/her own plan for a tract of land containing two (2) acres or less, provided:~~

~~(1) The areas to be disturbed will not allow water to flow in any one direction for over two hundred (200) feet; and~~

~~(2) The cuts and fills established will not exceed a height or depth of over five (5) feet; and~~

~~(3) There will be no concentrated off-site water to be controlled on the site.~~

(d) *Staff review.* The public works department staff shall review all erosion and sediment control plans and approve or deny a grading permit based on these plans. Approval or denial of a grading permit shall be based on all applicable provisions of this chapter. Erosion and sediment control plans shall be reviewed within thirty (30) days of the date of the submittal of the plan. If the county engineer determines that the size and scope of the proposed plan requires additional time for adequate review, the review period shall be extended as determined appropriate by the public works department, but in no event shall the review period exceed forty five (45) days. If at the end of the forty five (45) day period a decision has not been reached, the plan shall be deemed approved; however, the applicant may waive this requirement and consent in writing to the extension of that period. In the absence of an appeal, the order of the county engineer shall be final. If an erosion and sediment control plan is disapproved and the grading permit denied, the applicant may elect to correct the indicated deficiencies in conformity with the provisions of this article and resubmit the application and plan. No additional application fee shall be assessed for such resubmission.

(e) *Public notification.* No public notification is required for review of an erosion and sediment control plan.

(f) *Formal review.* No formal review is required for erosion and sediment control plan review.

(g) *Variances.* No variances are permitted from the regulations on erosion and sediment control.

(h) *Appeals.* Any owner who has received a decision from the public works department may appeal this decision to the county administrator. Such an appeal shall be filed within thirty (30) days after the public works department has notified the owner/applicant of its decision.

(i) *Permit validity.*

(1) *Validity.* The effective date of an erosion and sediment control plan shall be the date as stamped on the plan, and the grading permit issued with plan approval shall state the period for which the permit is valid. If the applicant is unable to complete the work within the time specified in the approved plan and grading permit, he/she may, prior to the expiration of such time, present a written request to the county engineer for an extension of time, setting forth reasons for the requested extension. The county engineer shall approve or deny the request for an extension of time, subject to such additional erosion and sediment control measures as may be reasonably required.

(2) *Responsibility of applicant.* The applicant shall be responsible for carrying out the proposed work in accordance with the approved erosion and sediment control plan and grading permit, and in compliance with the requirements of this chapter. The applicant shall be responsible for compliance with all applicable regulations

~~pertaining to the protection of wetlands. The applicant shall be responsible for notifying the Richland County Public Works Department a maximum of twenty-four (24) hours after the start of construction.~~

Secs. 26-65 – 26-80. Reserved.

SECTION V. The Richland County Code of Ordinances, Chapter 26, Land Development; Article V, Zoning Districts and District Standards; Section 26-83, Establishment of Zoning Districts; Subsection (d), Overlay Districts; is hereby amended to read as follows:

(d) *Overlay districts.* Overlay districts are zoning districts that overlap one or more general use districts. Overlay districts involve additional regulations on some or all of the property within the underlying general use districts. For the purpose of this chapter the following overlay districts are established in the zoning jurisdiction of Richland County, South Carolina:

AP	Airport Height Restrictive Overlay District
C	Conservation Overlay District
FP	Floodplain Overlay District
RD	Redevelopment Overlay District
EP	Environmental Protection Overlay District

SECTION VI. The Richland County Code of Ordinances, Chapter 26, Land Development; Article V, Zoning Districts and District Standards; Section 108, Reserved; is hereby amended to read as follows:

Sec. 26-108. EP Environmental Protection Overlay District.

(a) *Purpose*. The EP Overlay District is intended to address general environmental concerns within a designated area. In an effort to address some of the most critical water resource problems that exist within Richland County, environmental protection overlay districts may be initiated by the Richland County Public Works Department as necessary and appropriate.

(b) *Applicability/establishment.* EP Overlay Districts may be approved and designated by County Council in order to promote the general welfare of Richland County and of the public generally where Richland County seeks to regulate and control development activities adjacent to special protection areas, impaired water bodies within Richland County and/or where TMDLs may have been designated. The EP Overlay District map may be requested from the Richland County Department of Public Works.

(c) *EP Overlay District sub-areas.* Within the EP overlay district, there is a sub-area classification, which is identified as follows:

Gills Creek Environmental Protection Overlay District (EP-GC District). Richland County seeks to preserve the Gills Creek Floodway in order to protect and improve the water quality, scenic beauty, and wildlife habitat of the creek. The creation of

Gills Creek Environmental Protection Overlay District (EP-GC District) for Richland County is done in order to establish a mechanism for the accomplishment of these objectives. There is hereby established one (1) EP overlay district in the Gills Creek area of Richland County. The boundaries of the EP-GC District shall be the Gills Creek Floodway as shown on the FEMA Flood Insurance Rate Maps.

(d) *Development requirements.* Variances and exemptions shall not be permitted within the Environmental Protection Overlay Districts; however, the Public Works Department may consider applications for waivers where the applicant demonstrates that alternative protection measures can be provided that exceed the protection afforded by the requirements of this Section.

(1) *Water Quantity Problem Areas.* In EP Overlay Districts where flooding problems exist, the Public Works Department may require additional design criteria in addition to the minimum design standards as follows: The post-development peak discharge rates shall be restricted to ½ the pre-development rates for the 2, 5, 10, and 25-year storm events or to the downstream system capacity, whichever is less. Additional design procedures are contained in the Stormwater Design Standards.

(2) *Water Quality Protection Areas.* In conjunction with the NPDES permitting program, SCDHEC identifies impaired water bodies bi-annually and reports them in accordance with Section 303 of the Clean Water Act. If a water body is listed on the 303(d) as an impaired stream or a TMDL has been established. Richland County will require a plan be implemented that uses structural and nonstructural BMPs to reduce the current pollutant loading to either a certain maximum total load or by a percentage. In no case will Richland County approve a land development activity which increases the pollutant loading to an impaired stream. In EP Overlay Districts where impairments exist, all sites which disturb one acre or more shall have a permanent water quality BMP in place to treat at least the first 1-inch of runoff from the entire site. This volume shall be held for a minimum period of twenty-four (24) hours.

SECTION VII. The Richland County Code of Ordinances, Chapter 26, Land Development; Article VII, General Development, Site, and Performance Standards; is hereby amended by the creation of a new Section, to read as follows:

Sec. 26-187. Water Quality Buffer Requirements.

(a) *Purpose and applicability*. It is the intent of the Public Works Department to establish minimal acceptable requirements for the design of buffers to protect the streams, wetlands and floodplains of the County of Richland; to protect the water quality of watercourses, reservoirs, lakes, and other significant water resources; to protect riparian and aquatic ecosystems; and to provide for the environmentally sound use of the County's land resources.

(1) *Purpose.* A water quality buffer is an area of original or re-established vegetation that borders streams, rivers, ponds, lakes, wetlands, and seeps. Buffers are most

effective when stormwater runoff is flowing into and through the buffer zone as shallow sheet flow, rather than concentrated flow such as channels, gullies, or wet weather conveyances. Therefore, it is critical that design of all development include management practices, to the maximum extent practical, that will result in stormwater runoff flowing into the buffer zone as shallow sheet flow. Water quality buffers provide numerous environmental protection and resource management benefits including:

a. Restoring and maintaining the chemical, physical and biological integrity of the water resources,

b. Removing pollutants delivered in urban stormwater,

c. Reducing erosion and controlling sedimentation,

d. Stabilizing stream banks,

e. Providing infiltration of stormwater runoff,

f. Maintaining base flow of streams,

g. Contributing the organic matter that is a source of food and energy for the aquatic ecosystem,

h. Providing tree canopy to shade streams and promote desirable aquatic organisms,

i. Providing riparian wildlife habitat, and

j. Furnishing scenic value and recreational opportunity.

(2) *Applicability*. Water quality buffers are required along all perennial and intermittent streams, waterways, shorelines and wetlands according to a USACE jurisdictional determination, to be submitted from the developer and approved by the Public Works Department. In addition, water quality buffers may be required to protect waters (such as isolated wetlands) pursuant to the S.C. Pollution Control Act, as determined by the Public Works Department.

(3) *This Section shall apply to the following*:

a. All proposed development except for that development which meets the criteria for an exemption [Section 26-187 (b)] and/or a waiver [Section 26-187 (k)].

b. All surface mining operations except active surface mining operations which are operating in compliance with an approved SCDHEC surface

mining permit. A copy of the approved surface mining permit shall be provided to the Public Works Department.

c. The construction of agricultural structures as stated in this chapter.

d. Except as provided in Sections 26-187 (b), and 26-187 (k), this shall apply to all parcels of land, structures and activities which are causing or contributing to:

1. Pollution, including non-point pollution, of the waters of Richland County,

2. Erosion or sedimentation of stream channels, or

3. Degradation of aquatic or riparian habitat.

(b) *Exemptions*. The water quality buffer requirements shall not apply to the following:

(1) Ephemeral streams, ditches, manmade ponds, and lakes, which are outside of natural hydrologic connectivity.

(2) Any existing structure or structure under construction located within the buffer area, provided the land owner can document prior existence.

(3) The addition or expansion to an existing structure, provided it does not result in an increase in the total impervious area within the buffer area.

(4) Activities associated with emergency operations, such as hazardous materials removal, flood or fire control, evacuations, and storm damage clean up.

(5) Single-family parcels of land, which exist as individual lots that are two (2) acres or less and are not part of a new subdivision development.

(6) All "Entitled Property".

If any portion of a parcel proposed for development lies within an area designated on an officially adopted Conservation Easement as a proposed trail or greenway, the developer shall construct the designated improvements in accordance with County standards and dedicate such land to the County.

(c) *Stream Buffers*.

(1) Stream buffers shall be considered a "no disturb zone" along jurisdictional lines. Vegetation cannot be disturbed, removed or replanted unless a buffer restoration plan has been approved by the Public Works Department. Section 26-187 (g) provides requirements to expand the buffer widths depending on slopes, water

pollution hazards, or other uses that may contribute to water quality degradation. The buffer width shall be calculated as follows:

a. Along jurisdictional perennial streams identified by the USACE, not associated with a floodplain or wetlands, the buffer shall be at least fifty (50) feet perpendicular from the jurisdictional line ~~top of bank~~ on each side of the waterway.

b. In areas where a floodway profile has been computed along a perennial stream (AE Zones) as part of an approved flood study, the buffer area shall be equal to the width of the floodway, but never less than fifty (50) feet.

c. In areas where a floodway profile has not been computed along a perennial stream (A Zones) the developer shall perform a flood study, determine the floodway and follow the buffer requirements outlined above. As an alternative to preparing the flood study, the buffer limits shall extend to the delineated flood plain limits.

d. Along jurisdictional intermittent streams identified by the USACE, the buffer shall be at least fifty (50) feet perpendicular from the jurisdictional line on each side of the waterway. If these streams have associated flood as described above, the same requirements would apply to have a total width of fifty (50) feet.

e. For delineated wetland areas associated with perennial streams, the buffer shall be at least fifty (50) feet. This buffer width is independent of any wetland offset requirements of the USACE.

f. For delineated wetland areas associated with intermittent streams, the buffer shall be at least fifty (50) feet. This buffer width is independent of any wetland offset requirements of the USACE.

g. For wetland areas not associated with perennial, intermittent streams, or floodway, the buffer shall be the extent of the wetland area plus an additional fifty (50) feet perpendicular beyond the wetland edge.

(2) Stream Buffer Management and Maintenance. The function of the stream buffer is to protect the physical and ecological integrity of the waterway, to reduce flooding potential, and to filter runoff from all development. The objective of a stream buffer is undisturbed native vegetation.

a. Management of the stream buffer includes specific limitations on alteration of the natural conditions. The following practices and activities are restricted within stream buffers, except with prior approval by the Public Works Department:

1. Clearing or grubbing of existing vegetation,

2. Clear cutting of vegetation,

3. Soil disturbance by grading, stripping, or other practices,

4. Filling or dumping,

5. Use, storage, or application of pesticides, herbicides, and fertilizers,

6. Conversion of vegetation from native to exotic species.

7. Motor vehicles are not permitted in stream buffers unless during the installation of certain utilities permitted in the buffer zone.

b. The following structures, practices, and activities are permitted in the stream buffer, subject to prior approval of the Public Works Department, and when specific design or maintenance features are adhered to:

1. Stream crossings and utilities:

[a] An applicant shall demonstrate that stream crossings are minimized;

[b] The right of way should be the minimum width needed to allow for maintenance access and installation;

[c] The angle of a crossing shall be as nearly perpendicular to the stream or buffer as practical in order to minimize clearing requirements; and

[d] The minimum number of crossings should be used within each development, and no more than one crossing is allowed for every one thousand (1,000) linear feet of buffer zone unless the applicant demonstrates to the Public Works Department the need for additional crossings. Where possible, the design of roadways and lots within a development should be aligned such that all streams are either to the rear or the side of individual lots, never along the front.

2. Transportation right-of-ways, pedestrian crossings, public access, boat ramps, docks, fishing platforms, unpaved paths (i.e. trails and greenways), and stream bank stabilization efforts.

3. Utilities are allowed; and shall be installed a minimum distance of twenty-five (25) feet measured perpendicular from the jurisdictional line within the buffer area.

c. In order to maintain the functional value of the stream buffer, indigenous vegetation may be removed as follows:

1. Dead, diseased, or dying trees that are in danger of falling and causing damage to dwellings or other structures may be removed with approval from the Public Works Department;

2. Debris in the buffer area that is caused by storm damage may be removed; and

3. Invasive plant species may be removed if they are replaced by native species that are equally effective in retarding runoff, preventing erosion and filtering non-point source pollution from runoff. A buffer restoration plan for removal of invasive species must be approved by the Public Works Department.

(d) *Shoreline Buffers*.

(1) Shoreline buffers shall be considered an area of managed vegetation adjacent to shorelines with hydrologic connectivity (stream leading into/out of the pond/lake or obvious spring input. The shoreline buffer width shall be fifty (50) feet perpendicular from the jurisdictional line. For ponds and lakes, the buffer shall be a minimum of fifty (50) feet from the jurisdictional line.

For Lake Murray, the buffer shall be measured from the 360' elevation or current jurisdictional line as determined by USACE.

(2) Shoreline Buffer Management and Maintenance. The function of the shoreline buffer is to protect the physical and ecological integrity of the water body by providing a functional distance to reduce flooding potential, reduce erosion, sedimentation, and filter runoff between development and the water body.

a. Management of the shoreline buffer includes specific limitations on alteration of the natural conditions. The following structures, practices and activities are restricted in the shoreline buffer unless prior approval is granted by the Public Works Department:

1. Septic systems;

2. Permanent structures;

3. Impervious cover, with the exception of paths;

4. Soil disturbance by grading, stripping or other practice;

5. Filling or dumping;

6. Stormwater management facilities; and

7. Use, application, or storage of pesticides or herbicides except for the spot spraying of noxious weeds or other non-native species consistent with approved agency recommendations. (Richland County, State Forestry Commission, SCE&G Land Management).

b. The following structures, practices, or activities are permitted in the shoreline buffer, subject to the prior approval of the Public Works Department:

1. Biking or hiking paths;

2. Recreational uses as approved by the Public Works Department; and

3. Limited tree or underbrush clearing with approval from the Public Works Department.

(e) *Water Quality Buffer Plat Requirements*. All preliminary, bonded and final plats prepared for recording and all right-of way-plats shall clearly:

(1) Show the extent of any stream or shoreline buffer on the subject property by metes and bounds;

(2) Label the stream and shoreline buffer;

(3) Provide a note to reference all buffers stating: "There shall be no clearing, grading, construction or disturbance of vegetation except as permitted by the Public Works Department";

(4) Provide a note to reference any protective covenants governing all buffer areas stating: "Any buffer shown on the plat is subject to protective covenants which may be found in the land records and which restrict disturbance and use of these areas";

(5) If the buffer area will not be part of an individual lot, then ownership must be stated by identifying who is the responsible party; and

(6) Provide the location of permanent boundary marker signs.

(f) Design Requirements.

(1) The buffer plan must be submitted in conjunction with the sediment and erosion control plan, SWPPP Document, and all applicable calculations for a land disturbance permit.

(2) It is recommended that the buffer be marked off with a warning barrier (orange safety fence) to show that no disturbance is allowed in the buffer area.

(3) The following steps shall be taken during the site plan development and site construction process to protect water quality buffers during construction:

a. Water quality buffers must be clearly identified on all stormwater management plans and construction drawings and marked with the statement "Water Quality Buffer. Do Not Disturb".

b. Water quality buffers cannot be encroached upon or disturbed during project construction, unless in accordance with Section 26-187 (b), Section 26-187 (k) or unless they are being established, restored, or enhanced in accordance with an approved Buffer Enhancement Plan.

c. Water quality buffers must be clearly marked with a warning barrier before the preconstruction conference. The marking shall be maintained until completion of construction activities. All contractors and others working on the construction site must be made aware of the existence of the buffer(s) and the restrictions on disturbing the buffer(s).

d. All areas of the water quality buffer, including stream banks, must be left in the existing condition upon completion of construction activities. Should construction activities associated with development cause degradation to stream banks, all eroding, bare or unstable stream banks shall be restored to existing conditions.

e. If any trees are allowed to be removed, the tree location shall be shown and a note shall be provided stating that the tree must be hand cleared.

f. The locations of all signage must be clearly shown on plans.

g. A narrative stating the extent of the buffer areas, including any allowed disturbance in the buffer areas (this should be in the narrative as well as in the SWPPP Document), must be included with the plans.

h. A double row of silt fence (with metal posts and wire backing) shall be shown on the upstream side of applicable buffer area(s) that are adjacent to a land disturbance.

i. The stream buffer shall be shown and labeled on the engineering plans, preliminary, bonded and final plat.

j. If the stream buffers are dedicated to Richland County, placed in a conservation easement, or turned over to a Homeowners Association, the buffers shall be maintained in accordance with the maintenance and inspection requirements for permanent storm water management structures.

1. If the buffer is dedicated to Richland County:

[a] All property lines shall terminate at the water quality buffer.

[b] Access easements shall be a minimum twenty (20) foot wide to allow maintenance of the buffer. Access points for these easements will be coordinated with storm drainage easements during the plan review process.

2. If placed in a conservation easement or if the easement is held by a viable third party, such as a land trust, land management company, or utility, the organization shall:

[a] Have the legal authority to accept and maintain such easements;

[b] Be bona fide and in perpetual existence; and

[c] Have conveyance instruments that contain an appropriate provision for retransfer in the event the organization becomes unable to carry-out functions.

3. If given to a Home Owners Association (HOA) the following criteria must be met:

[a] Membership in the HOA is mandatory and automatic for all homeowners for the subdivision and their successors;

[b] The HOA shall have lien authority to ensure the collection of dues from all members; and

[c] The HOA assumes the responsibility for protecting, monitoring and maintaining the area as an undisturbed natural area, in perpetuity.

(4) Shoreline buffers shall be shown and labeled on the engineering plans. Shoreline buffers shall be maintained by the owner in accordance with the maintenance and inspection requirements for permanent storm water management structures outlined in this Chapter. Shoreline buffers may be deeded to Richland County, placed in a conservation easement, or given to the HOA as outlined in Section 26-187 (f) (3) j.

(g) *Water Quality Buffer Width Adjustments*. Adjustments to the buffer width shall be made for the following conditions:

(1) If streams are on a current 303d list or with an approved Total Maximum Daily Load (TMDL), the buffer area shall be increased to one hundred (100) feet. However, see also section 26-187 (g) (10) below.

(2) If water bodies are on SCDHEC'S Outstanding National Resource Waters (ONRW) list, the buffer area shall be increased to one hundred (100) feet. However, see also section 26-187 (g) (10) below.

(3) If there are fifteen percent (15%) to twenty-four percent (24%) slopes within the required buffer area, the buffer width must be adjusted to include an additional ten (10) feet.

(4) If there are twenty-five percent (25%) or greater slopes within the required buffer area width, the buffer width must be adjusted to include an additional twenty-five (25) feet.

(5) If the adjacent land use involves drain fields from on-site sewage disposal and treatment systems (i.e., septic systems), subsurface discharges from a wastewater treatment plant, or land application of bio-solids or animal waste, the buffer area width must be adjusted to include an additional twenty-five (25) feet.

(6) If the land use or activity involves the storage of hazardous substances or petroleum facilities, the buffer area width must be adjusted to include an additional fifty (50) feet. However, see also section 26-187 (g) (10) below.

(7) If the land use or activity involves raised septic systems or animal feedlot operations, the buffer area width must be adjusted to include an additional one hundred (100) feet. However, see also section 26-187 (g) (10) below.

(8) If the land use or activity involves solid waste landfills or junkyards, the buffer area width must be adjusted to include an additional two-hundred (200) feet. However, see also section 26-187 (g) (10) below.

(9) If all on-site stormwater runoff is captured and routed through a permanent water quality basin, and there is no sheet flow discharging into the buffer, the buffer

area can be reduced to twenty-five (25) feet. This is intended to apply in limited situations, such as small commercial developments.

(10) If the applicant satisfactorily demonstrates that there will be no degradation of the receiving water body by implementing the proposed storm water quality controls, then the established buffer may be reduced on a case by case basis upon approval by Public Works.

(h) *Water Quality Buffer Averaging*. This subsection outlines the criteria for buffer averaging on new and redevelopment sites. Buffer averaging can be utilized to adjust the required buffer width, allowing some flexibility for site development. Using buffer averaging, the width of the buffer can be varied with the criteria stated below, as long as a minimum average width of fifty (50) feet from the jurisdictional line are maintained.

(1) Requirements and Policies. The following criteria must be met in order to utilize buffer averaging on a development site:

a. Buffer averaging is required for water quality buffers that have stream crossings.

b. An overall average buffer width of fifty (50) feet, depending on the water quality buffer requirement, must be achieved within the boundaries of the property to be developed.

c. The average width must be calculated based upon the entire length of the stream bank or shoreline that is located within the boundaries of the property to be developed. When calculating the buffer length, the natural stream channel should be followed.

d. Stream buffer averaging shall be applied to each side of a stream independently. If the property being developed includes both sides of a stream, buffer averaging can be applied to both sides of the stream, but must be applied to both sides of the stream independently.

e. That portion of buffers in excess of one hundred (100) feet will not be credited toward the buffer averaging formula within the boundaries of the property to be developed. The total width of the buffer shall not be less than twenty-five (25) feet, or the width of the floodway at any location, except at approved stream crossings. Those areas of the buffer having a minimum width of twenty-five (25) feet (or less at approved stream crossings) can comprise no more than fifty percent (50%) of the buffer length.

(2) Areas Where Buffer Averaging is Prohibited. Buffer width averaging is prohibited in developments that have, or will have after development, the land uses listed below:

a. Developments or facilities that include on-site sewage disposal and treatment systems (i.e., septic systems), raised septic systems, subsurface discharges from a wastewater treatment plant, or land application of bio-solids or animal waste;

b. Landfills (demolition landfills, permitted landfills, closed-in-place landfills);

c. Junkyards;

d. Commercial or industrial facilities that store and/or service motor vehicles;

e. Commercial greenhouses or landscape supply facilities;

f. Developments or facilities that have commercial or public pools;

g. Animal care facilities, kennels, and commercial/business developments or facilities that provide short-term or long-term care of animals;

h. Other land uses deemed by the Public Works Department to have the potential to generate higher than normal pollutant loadings.

(i) *Signage*. For subdivisions, permanent boundary marker signs are required for stream buffers prior to bonding of the subdivision and/or finalizing the subdivision with the intent to transfer property. Permanent boundary markers are required to ensure that property owners are aware of the buffer. Permanent boundary markers are recommended, but not required, in shoreline buffers. The Public Works Department has the authority to require the person or entity responsible for permanent maintenance of the buffer to replace boundary markers that have been removed or destroyed. The following general requirements shall apply to buffer boundary markers:

(1) Generally, buffer boundary markers shall be located on the landward edge of the buffer, and at other locations which will approximately delineate the buffer boundary. For commercial developments, markers shall be posted every one hundred (100) feet along the buffer boundary. For subdivisions where multiple lots are located along the buffer, it is recommended that a buffer boundary marker be located at the intersection of every other lot line with the landward edge of the buffer.

(2) Buffer boundary markers shall include the statement “Water Quality Buffer – Do Not Disturb”.

(3) Where possible, the markers should be mounted to a tree larger than three (3) inches in diameter. Where it is not possible to mount the marker to a tree, a

treated wood or metal signpost must be used. The post must extend below the ground surface at least twenty four (24) inches.

(4) The boundary markers must be mounted between four (4) and six (6) feet above the ground surface.

(5) The boundary markers must be at least twelve by eighteen inches (12"x 18").

(6) Buffer boundary markers may be purchased from the Public Works Department or from another vendor.

(j) *Buffer Restoration and Enhancement Plans*. Buffer restoration is required when a buffer is disturbed without prior approval from the Public Works Department. A developer or property owner may also wish to enhance a buffer to bring it closer to an optimal, undisturbed native forest condition. Prior to reestablishing or planting the buffer, a restoration or enhancement plan must be submitted to and approved by the Public Works Department. Buffer restoration and/or enhancement plans must include the following:

(1) A drawing or plan that shows the location of the buffer in relation to the existing or planned development and to the buffered waterway; the disturbance limits for the planned buffer restoration; direction of flow of runoff from the site and flow within the water feature; erosion prevention and sediment control measures to be installed to protect the waterway; any existing or proposed stream crossings; existing or proposed stream bank stabilization measures; access to a water source for the purposes of watering vegetation; and other pertinent information. For large scale restoration and enhancement projects the plan(s) must be stamped by a registered landscape architect.

(2) A visual plan and a narrative that describe the vegetation plan for the buffer: stream buffers must be planted with native trees, shrubs, and grasses that will not be mowed. Suitable native plants can be chosen from the recommended plant species, as listed in the Storm Drainage Design Standards manual. Species of plants other than those listed on the pre-approved list shall be approved by the Department of Public Works prior to planting.

(3) The schedule for when plantings will occur and a two (2) year survival guarantee provided by the responsible party.

(k) *Waivers.*

(1) No waiver shall be granted to alter a buffer established pursuant to this Section unless the Public Works Department (or the Planning Commission, in the event of an appeal) determines that a hardship exists and relief meets the general purpose and intent of this Section. Within Water Quality Protection Areas, no waiver shall be granted unless the applicant demonstrates that alternative protection measures can be provided that exceed the protection afforded by the established buffer. In

no case will the buffer be reduced to less than twenty five (25) feet from the jurisdictional line.

(2) In granting a request for a waiver, the Public Works Department or Planning Commission may require site design, landscape planting, fencing, the placement of signs, and the establishment of water quality best management practices in order to reduce adverse impacts on water quality, streams, wetlands, and floodplains.

(3) Waiver requests shall only be considered if a request meets any of the criteria listed below.

a. The project involves construction of:

1. One single-family home for residential use by the owner of the property; and

2. The property has an unusual shape or topography and there is no opportunity to develop under any reasonable design configuration.

b. The project involves the construction or repair of a structure which, by its nature, must be located within the buffer:

1. Dams;

2. Public water supply intakes;

3. Waste water discharges;

4. Docks, and boat launches;

5. Stabilization areas of public access to water;

6. Buffer intrusion is necessary to provide access to the property; or

7. Project will:

[a] Require a Wetland Permit from the U.S. Army Corps of Engineers (COE) for impacts to jurisdictional wetlands; and

[b] The COE has approved a mitigation plan; and

[c] Implementation of the plan in a 404 permit condition.

(4) Buffer Waiver Submittal Requirements.

a. The applicant shall submit a written request for a waiver to the Public Works Department. The request shall include specific reasons justifying the waiver and any other information necessary to evaluate the proposed waiver request. The Public Works Department may require an alternative analysis that clearly demonstrates that no other feasible alternative exist and that minimal impact will occur as a result of the project or development.

b. The Public Works Department shall make a determination and decision concerning the waiver request. An appeal may be made to the Planning Commission. An appeal of the Public Works Department's decision shall be filed in writing within thirty (30) days after the final decision. The Planning Commission shall make all final determinations and decisions.

Secs. 26-188 - 26-200. Reserved.

SECTION VIII. The Richland County Code of Ordinances, Chapter 26, Land Development; Article VIII, Resource Protection Standards; Section 26-202, Erosion and Sediment Control; is hereby amended to read as :

Sec. 26-202. ~~Erosion and sediment control~~ Stormwater management and SWPPPs.

(a) *Applicability.*

~~(1) *General applicability.*~~ Unless otherwise provided in this chapter, the surface of land in the county shall not be disturbed or changed for any purpose, except in accordance with this section and other applicable sections of this chapter.

~~(2) *Exemptions.* The provisions of this article shall not apply to:~~

~~a. Agricultural and silvicultural land management and cultural practices, or to the construction of on-farm buildings and structures used in farming operation.~~

~~b. Construction or land improvement of a single-family residence or its accessory buildings that are not part of a subdivision or larger common plan. The owner of property approved for a single-family residence may make land improvements on his/her single lot without an approved erosion and sediment control plan and without obtaining a grading permit provided that such construction or land improvement does not impede the runoff capacity of existing major drainage channels and is not located in an area of special flood hazard.~~

~~c. Mining and mineral resource extraction operations conducted in accordance with a valid mining permit issued by the Mining and~~

~~Reclamation Division of the South Carolina Department of Health and Environmental Control.~~

~~d. Emergency repairs or maintenance of existing structures and facilities that require ground to be broken. The responsible person shall notify the county engineer in writing within five (5) days of such emergency repairs and maintenance actions.~~

~~e. Any agency with the power of eminent domain. Such agencies must apply to the South Carolina Department of Health and Environmental Control for a stormwater management permit.~~

~~f. Construction and maintenance activities associated with provisions of gas, electrification or communication services and more particularly described in Section 72-302A(6) of the *Standards for Stormwater Management and Sediment Reduction* administered by the South Carolina Department of Health and Environmental Control pursuant to the South Carolina Stormwater Management and Sediment Reduction Act of 1991.~~

~~g. Any site, not otherwise exempted, one-half (½) acre or less in size, on which the maximum fall per one hundred (100) feet does not exceed six (6) feet anywhere on the site. Slopes may be determined by available contour maps and soil maps; however, actual field measurements may be required and in such cases shall be binding.~~

(b) *Guidelines.* For all sites subject to this section, ~~erosion and sediment control plans~~ a Stormwater Pollution Prevention Plan (SWPPP) shall be prepared based on the following guidelines (see Section ~~26-65~~ 26-64 of this chapter for procedural requirements for review). Plans shall include appropriate measures and practices for erosion and sediment control, installed in a timely sequence during the development process, and maintained to ensure their proper function.

(1) *Land selection for development.* Land should be selected where the drainage pattern, topography, and soils are favorable for the intended use. Tracts of land vary in suitability for different uses. Consideration shall be given to the major characteristics of the land area and the kinds of soil (identifying and evaluating potential erosion and sediment problems) and to the selection of appropriate control measures and practices.

(2) *Land exposure.* The erosion and sediment control plan shall expose the smallest practical area of land for the least possible time during development.

(3) *Retention of vegetation and topsoil.* When feasible, natural vegetation shall be retained and protected. Topsoil, where practical, shall be saved for replacing on graded areas.

(4) *Temporary measures.* Temporary plant cover, mulching and/or structures shall be utilized to protect areas subject to erosion during construction.

(5) *Provisions for increased runoff.* Provisions shall be made for the increased runoff caused by changed soil and surface conditions. Emphasis should be placed on conservation of existing on-site soil. Effective means include the use of diversion ditches, grassed or surfaced waterways and outlets, enlarged and protected drainage channels, grade control structures, and effective use of road gutters and storm sewers.

(6) *Silt traps.* Sediment basins or other forms of silt traps shall be used, where practical, to remove heavy sediment loads from runoff waters leaving the disturbed area.

(7) *Long-term measures.* Permanent vegetative cover and long-term erosion protection measures or structures shall be installed as soon as practical in the development process.

~~(c) *Supplemental regulations.* All applicable provisions of the *Standards for Stormwater Management and Sediment Reduction* (Sections 72-301, 302, 305, 307, 308, 312, 313, 314, 315, 316) administered by the South Carolina Department of Health and Environmental Control pursuant to the South Carolina Stormwater Management and Sediment Reduction Act of 1991 are incorporated by reference herein.~~

~~(d) *Inspection.* The county engineer shall periodically inspect the work done under an approved erosion and sediment control plan and grading permit, as deemed advisable.~~

(c) *Requirements and standards.*

(1) *Methods of calculating stream flow and runoff.* SWPPPs shall be based on stream flow and runoff for the site to be developed. Formulas and values as prescribed in the county's "Storm Drainage Design Standards" shall be used for calculating all stream flow and runoff. Copies of the Storm Drainage Design Standards may be obtained through the county engineer's office.

a. *Rainfall frequencies.* The following rainfall frequencies shall be used in the calculations for stormwater runoff and stormwater management facility design, depending upon the size of the watershed:

Size-Acres	*Frequency-Years*
300 +	50 year
40 – 299	25 year
0-39	10 year

The two (2) year, twenty-four (24) hour rainfall shall also be used as prescribed in the "Storm Drainage Design Standards".

b. *Future development.* Calculations used in the design of proposed stormwater management facilities shall reflect the anticipated future development of the entire watershed.

c. *Inlet and outlet control curves.* Appropriate inlet control and outlet control curves shall be used to determine headwater depths, where applicable.

(2) *Primary drainage channel requirements.*

a. *General.* All primary drainage channels located within or immediately adjacent to any improvement, development or subdivision shall be protected or improved by the applicant in accordance with the following requirements. The applicant shall be responsible for carrying out the proposed work in accordance with the approved SWPPP, and in compliance with the requirements of this section. The applicant shall plan and carry out his/her developments in a manner that will not interfere with or restrict the flow of water, nor increase the 100-year flood elevation by more than one (1) foot. The developer shall be responsible for any improvements to such channels, as needed to handle increased runoff or other changes resulting from his/her development, in accordance with the provisions of this section.

b. *Dedication of primary drainage channels.* All land adjacent to a primary drainage channel and not protected by levees, dikes, or fill shall be dedicated for the purpose of providing drainage right-of-way as follows:

1. *Commercial and/or residential subdivisions.* In commercial and/or residential subdivisions, drainage easements of satisfactory width to provide working room for construction and maintenance equipment shall be deeded to the county for all drainage improvements, including stormwater management facilities, and shall be separate and apart from adjoining lots.

2. *Planned developments or town and country developments.* In Planned Development Districts or Town and Country Districts, the property owner(s) or homeowners' association shall be responsible for maintenance of drainage channels and easements. The final plat approved for recordation shall indicate the available public easements for drainage channels. The county shall have the right to encroach onto these public easements or permit others to encroach for any purpose deemed appropriate by the county engineer. In no way does this right of encroachment lessen the

obligation of the property owner(s) or the responsibility of the homeowners' association for maintenance of the drainage channels and easements.

c. *Existing channel modifications.* It is the intent of these regulations that existing drainage channels within buffer areas be maintained in their natural conditions whenever possible and whenever engineering is feasible. It is recognized that additional capacity may be required, and the ability to maintain such facilities must be provided, for which the following provisions shall be followed. The existing channel lying within or contiguous to a subdivision or parcel of land proposed for development or redevelopment may be:

1. Cleaned to provide for free flow of water; and

2. Straightened, widened, and improved to prevent overflow resulting from the 50-year frequency rainfall beyond the limits of the dedicated drainage easement provided for in subsection b. above; provided:

[a] The SWPPP contains details of the proposed channel modifications and includes either:

[1] A mitigation plan for water quality impacts, including best management practices to be implemented as part of the channel modification and overall project; or

[2] An engineering analysis demonstrating no water quality impacts resulting from the proposed modifications.

[b] The SWPPP must be approved in accordance with this section prior to commencing any channel modifications.

Whenever existing channel modifications are made, sodding, backsloping, cribbing, and other bank protection shall be designed and constructed to control erosion for the anticipated conditions and flow resulting from a 50-year rainfall.

d. *Areas of special flood hazard.* In areas of special flood hazard, final grading of all lots and building sites for new construction or substantial improvement shall provide for elevation on fill, pilings, or earth filled curtain walls of the lowest habitable floor to at least two (2) feet above the 100-year flood elevation. Where fill is used to meet this requirement, the

area two (2) feet above the 100-year flood elevation shall extend at least ten (10) feet from each side of the building pad. Certain types of non-residential structures are permitted within the floodplain if properly "flood-proofed" in compliance with Section 26-104(d) of this chapter and all applicable building code requirements.

e. *Primary channels located within road easements.* Primary drainage channels located within road easements shall be placed in enclosed storm sewers, except under the following conditions:

1. Where a paved road surface at least two (2) lanes wide is provided on both sides of an improved channel so as to provide access to abutting properties.

2. For lots with a double-road frontage, an open drainage channel is permitted between the rear lot line and the paved road, provided that access from the road to the lot is prohibited both at the time of construction and in the future.

3. When a condition outlined in either 1. or 2. above is present, adequate width shall be dedicated as right-of-way to provide for the maintenance of an improved drainage channel and its bank.

f. *Levees protecting structures.* All levees protecting residential structures or non-residential structures that are not flood-proofed shall be designed, constructed, and maintained to provide protection against the 500-year flood, plus three (3) feet of freeboard. Flood elevations shall be as shown on the latest Flood Insurance Rate Maps or as determined by appropriate hydrologic methods. Any levee constructed or improved under this subsection shall also comply with the other provisions of this article, including, but not limited to, subsection g. below.

g. *Structures or obstructions in regulatory floodway.* Not withstanding any other provision of this chapter, no levees, dikes, fill materials, structures or obstructions that will impede the free flow of water during times of flood will be permitted in the regulatory floodway, unless:

1. Such proposed impediment is a permitted use pursuant to Section 26-104(d)(2)i. of this chapter; or

2. Such impediment was approved by the County Engineer under this subsection g., or under any predecessor provision, before January 1, 2001;

PROVIDED, HOWEVER, that any specified activity permitted above must comply with all applicable federal, state, and local requirements,

including, but not limited to, 44 C.F.R. 60.3(d)(3), as amended. Nothing in this subsection g. shall limit provisions in this chapter or elsewhere authorizing or requiring the maintenance and repair of levees, dikes, dams, and similar structures; provided, however, that this sentence shall not be construed as authorizing or requiring the repair or maintenance of any such structure to the extent that such repair or maintenance would result in a structure that would be higher or wider than it was before the need arose for such repair or maintenance.

h. *National Flood Insurance Program.* All applicable regulations of the National Flood Insurance Program are incorporated by reference herein.

(3) *Secondary drainage channel and surface requirements.*

a. *General.* All secondary drainage channels that are within or immediately adjacent to an improvement, development, or subdivision shall be protected and improved by the applicant in accordance with the following requirements.

b. *Drainage maintenance.* Drainage easements of satisfactory width to provide working room for construction and maintenance equipment shall be dedicated to the county for all drainage improvements in subdivision developments, including stormwater management facilities. Drainage improvement maintenance for planned developments, town and country developments, and commercial buildings shall be the responsibility of the property owner(s) or home owner's association.

c. *Improvements.*

1. Secondary drainage channels having a primary function of, 1) collecting surface water from adjacent properties, or 2) intercepting and diverting side hill drainage, shall be improved open channels.

2. Secondary drainage channels having a primary function of, 1) transporting surface water through a block or development; or 2) collecting surface water from cross channels, shall be improved as follows:

[a] Secondary drainage channels having drainage basins forty (40) acres or larger shall be improved with either a closed storm sewer or improved open channel designed to carry the runoff resulting from a 25-year frequency rainfall. A natural stream may be approved by the county engineer for environmental or aesthetic purposes, provided that it has

the required carrying capacity and that flood protection requirements are met.

[b] Secondary drainage channels having less than forty (40) acres shall be improved with closed storm sewers designed to carry the runoff resulting from a 10-year frequency rainfall. Variation from this requirement may be approved by the county engineer for environmental or aesthetic purposes, provided that it has the required carrying capacity and that flood protection requirements are met.

3. All improvements to drainage channels shall be carried out such that waters protected by the Federal Clean Water Act are not degraded.

d. *Areas of special flood hazard.* In areas of special flood hazard, final grading of all lots and building sites for new construction, or substantial improvement of residential structures, shall provide for elevation on fill, pilings, or earth filled curtain walls of the lowest habitable floor to at least two (2) feet above the 100-year flood elevation. Where fill is added to meet this requirement, the area two (2) feet above the 100-year flood elevation shall extend at least ten (10) feet from each side of the building pad. Certain types of structures are permitted within the floodplain if properly "flood-proofed" in compliance with Section 26-104(d) of this chapter and all applicable building code requirements.

e. *Secondary drainage channels within road easements.* Secondary drainage channels located within road easements shall be placed in enclosed storm sewers, except under the following conditions:

1. Where a paved road surface at least two (2) lanes wide is provided on both sides of an improved channel so as to provide access to abutting properties.

2. For lots with a double-road frontage, an open drainage channel is permitted between the rear lot line and the paved road, provided that access from the road to the lot is prohibited both at the time of construction and in the future.

3. When a condition outlined in either 1. or 2. above is present, adequate width shall be dedicated as right-of-way to provide for the maintenance of an improved drainage channel and its bank.

f. *Off-site discharges.* Off-site discharges from closed storm sewers or improved open channels will only be permitted at natural streams or man-made drainage channels acceptable to the county engineer, unless a

drainage easement is obtained from the adjoining landowner. Adequate provisions shall be made to reduce discharge velocities such that the receiving channel is not degraded. When off-site drainage channels are not adequate to accept the additional runoff resulting from development, the developer shall install on-site facilities for controlled release of stormwater runoff. These on-site drainage facilities shall be designed to limit the runoff rate to predevelopment levels during the design storm and the two-year storm.

g. *Additional development requirements.*

1. *Single-family residential, duplex or manufactured home development.* Site grading for single-family, duplex, or manufactured home development shall be carried out in such a manner that surface water from each dwelling lot will flow directly to a storm sewer, improved channel, sodded swale, or paved road without running more than two hundred (200) feet.

2. *Commercial, industrial, multi-family, and institutional development.* For commercial, industrial, multi-family, and institutional development, roofs, paved areas, yards, courts, courtyards, and other impervious surfaces shall be drained into a stormwater management facility, with the exception that such drainage may flow directly into a road, curb and gutter system, or improved channel when of small area and approved by the county engineer. Construction of buildings over storm drainage improvements is not permitted.

h. *Surface water on roads.* Surface water collected on roads shall be diverted to enclosed storm sewers or drainage channels at satisfactory intervals to prevent overflow of the road and its curbs and gutters, where provided, during a 10-year frequency rainfall.

(4) *Minimum water quality requirements.*

a. *Minimum water quality requirements.* Requirements from the current "Storm Drainage Design Standards" and "BMP Manual" shall be followed, and shall provide for minimum quality control requirements for development. Such requirements shall be adhered to unless waived by the county engineer after a determination that both of the following have occurred:

1. It can be shown, by engineering calculations acceptable to the county engineer, that stormwater management facilities are not needed to control developed peak discharge rates and meet water quality requirements.

2. It can be shown that installing such facilities would not be in the best interest of local citizens or the county.

b. *Additional requirements.* The county engineer may determine that additional stormwater management facilities, beyond those required under this section, are necessary for on-site stormwater management. Additional facilities may be needed to enhance or provide for the general health, safety, and welfare; to correct unacceptable or undesirable existing conditions; or to provide protection for future development in a more desirable fashion. If such a determination is made, the county engineer may do the following:

1. Require that the owner/applicant grant any necessary easements to provide access to or drainage from the stormwater management facility.

2. Develop an agreement with the owner/applicant for the over-design of the stormwater management facility to provide additional water quality benefits beyond that required by this section.

3. Recommend financial participation by the county in construction of the stormwater management facility, to the extent that such facility exceeds the on-site stormwater management requirements, as determined by the county engineer. The county may pay the additional expenses incurred in providing the additional storage capacity or water quality benefits, including land costs and increased design and construction costs.

(5) *Design criteria for improvements.*

a. *Open channels.* Open channels shall be provided with an improved section that will carry runoff from the appropriate design storm and preclude the creation of backwater inundating any areas outside of dedicated drainage easements. The channel shall be designed to minimize negative water quality impacts and protect against erosion in accordance with standards adopted by the county engineer.

b. *Closed storm sewers and culverts.* Closed storm sewers and culverts shall be constructed of pre-cast or prefabricated pipe or box culvert or built in place, of closed box design, in conformity with county specifications. They shall be sized to carry the runoff from the appropriate design storm and to preclude the creation of headwater inundating any areas outside of dedicated drainage easements.

c. *Bridges.* Bridges shall be designed in accordance with standards adopted by the county engineer. Construction shall be in accordance with South Carolina Department of Transportation specifications.

d. *Levees.* Levees shall be designed, constructed, and maintained as follows:

1. *U.S. Army Corps of Engineers Manuals.* Design and construction shall be in accordance with U.S. Army Corps of Engineers' Manual EM 1110-2-1913 (31 March 1978) *Design and Construction of Levees*. The design and construction of drainage systems within levees shall be in accordance with the U.S. Army Corps of Engineers' Manual EM 1110-2-1413 (15 Jan 1987) *Hydrologic Analysis of Interior Areas*. A South Carolina Registered Professional Engineer shall certify that he/she has been involved in the design, construction, and inspection phases and shall certify that the construction meets requirements of the corps of engineers.

2. *Maintenance.* Owners of levees will perform the necessary and required maintenance and provide appropriate records to the county engineer. These records shall include all of the following:

[a] Signed agreements of perpetual operation and maintenance between the constructor and/or owner and the county.

[b] As-built construction plans sealed by a South Carolina Registered Professional Engineer.

[c] A levee maintenance program in accordance with the Levee Maintenance Standards and Procedures of the county.

[d] Periodic maintenance reports as required by the county engineer.

e. *Stormwater management facilities.*

1. *General.* Stormwater management facilities may include both structural and non-structural elements incorporating quantity and/or quality control. A variety of different types of stormwater management facilities exist and can be used to satisfy the minimum quantity and/or quality control requirements. All proposed stormwater control measures shall be in accordance with the county's "Storm Drainage Design Standards". The county engineer may reject a SWPPP if it incorporates structures and facilities that do not meet the requirements of this section or if the plan utilizes numerous small structures where other alternatives are physically possible.

2. *Restriction of runoff rate*. Stormwater management facilities shall restrict the peak post-development runoff rate to the peak pre-development rate for the design storm. The design storm shall be ten (10), twenty-five (25), or fifty (50) years, depending on the size of the drainage basin. Overflow structures and emergency spillways shall be designed to accommodate the 100-year rainfall.

3. *Wet ponds.* Wet ponds (retention structures with a permanent pool) shall be utilized for drainage areas of twenty-five (25) acres or more, in accordance with the county's "Storm Drainage Design Standards". Wet ponds may be required for smaller drainage areas, as determined by the county engineer on a case-by-case basis. In all cases, wet ponds shall be located at least fifteen (15) feet from the property line of adjacent property.

4. *Wet (retention) and dry (detention) facilities.* Where wet (retention) and dry (detention) facilities are used, designs that consolidate them into a limited number of large structures are preferred over designs utilizing a large number of smaller structures. Additional state and/or federal permits may be required for larger stormwater management facilities impacting waters of the state protected by the Federal Clean Water Act.

5. *Landscaping.* Landscaping of stormwater management areas shall conform to all requirements of this chapter and to the design approved by the Public Works Department for any particular development. Retention/detention areas shall be landscaped with trees, shrubs, ground covers, and native perennials appropriate to the function as a wet or dry basin. If the landscaped area is also designed to meet on-site stormwater management requirements, one of the following must be met:

   [a] The area must be designed to provide an aesthetic focal point, such as a lake, creek or other water feature; to preserve a tree grouping; or to utilize the existing terrain and/or geological features of the site; or

   [b] The landscaping for the basin shall be integrated within the entire landscape plan.

6. *Stormwater facilities records requirements.* Drainage system and all stormwater management structures within the county (including public and private portions) shall be designed to the same engineering and technical criteria and standards. Owners of stormwater management facilities shall perform the required

maintenance and provide appropriate records to the county engineer. These records shall include all of the following:

[a] As-built construction plans certified by a South Carolina Registered Civil Engineer, Registered Landscape Architect, or Tier B. Land Surveyor; and

[b] Periodic maintenance reports as required by the county engineer.

(6) *Maintenance of stormwater management facilities.*

a. *General maintenance requirements.* All stormwater management facilities shall be maintained by the owner(s) in such a manner as to maintain and enhance the general health, safety, and welfare; to reduce and minimize damage to public and private property; to reduce and minimize the impact of such facilities on land and stream channel erosion; to promote the attainment and maintenance of water quality standards; and to maintain, as nearly as possible, the pre-development runoff characteristics of the area. All maintenance of privately owned stormwater management facilities shall be at the sole cost and expense of the owner(s) of such facilities.

b. *Failure to maintain stormwater management facilities.* It shall be unlawful for the owner or occupant of any property upon which a stormwater management facility is located, to fail to maintain the facility in such a manner that the facility creates a danger to the general health, safety, and welfare. Should the owner fail to so maintain the stormwater management facility, this failure shall constitute a violation of this chapter and shall be subject to the penalty provisons of Section 26-272.

c. *County assistance in maintenance.* All stormwater management facilities shall be privately owned and/or maintained unless the county accepts the facility for county ownership and/or maintenance. The county may assist with maintenance only if the County has entered into a maintenance agreement and the owner provides an easement (and provided that the County has available resources to provide such assistance).

(d) *Inspection of stormwater facilities.*

(1) *Inspection during construction.* The county engineer shall periodically inspect the work completed under the approved SWPPP. Upon completion of such work, he/she shall make a final inspection, and if the work has been carried out in accordance with the plan, he/she shall issue a letter of satisfactory completion upon receipt of the as-built drawings.

(2) *Right of entry.*

a. General. The county engineer shall have a right-of-entry on or upon the property of any person subject to this section. The county engineer shall be provided ready access to all parts of the premises for the purposes of inspection, monitoring, sampling, inventory, examination and copying of records, and the performance of any other duties necessary to determine compliance with this section.

b. Security. Where a person has security measures in force requiring proper identification and clearance before entry onto the premises, the person shall make necessary arrangements with security guards so that, upon presentation of suitable identification, the county engineer will be permitted to enter without delay for the purposes of performing specific responsibilities.

c. Sampling. The county engineer shall have the right to set up on the person's property such devices as are necessary to conduct sampling and/or metering of the property as it relate to stormwater management

d. Obstruction to access. Any temporary or permanent obstruction to safe and easy access to the areas to be inspected and/or monitored shall be removed promptly by the person at the written or verbal request of the county engineer. The costs of clearing such access shall be borne by the person.

e. Imminent threat to health and/or safety. In cases where an imminent threat to the health or safety of the general public or the environment is suspected, the county engineer or the director of emergency services shall inspect existing stormwater management facilities to determine if immediate action is necessary. Such inspection shall be made with or without the consent of the owner, manager, or signatory official. If such consent is refused, the county engineer may seek issuance of an administrative search warrant.

(e) *Levees.*

(1) *General.* Adequate levee maintenance is essential and cannot be overemphasized. Failure to properly maintain levees may render the levees inoperative during periods when their protection is needed. For safety in times of high water or floods, levee maintenance will be thorough and continuous. This requires a balanced maintenance program based on defined standards and procedures.

(2) *Maintenance standards and procedures.* Levees in Richland County will be maintained in accordance with the following standards to ensure serviceability against floods at all times.

(a) *Sod growth.* Maintenance of a sturdy sod growth on levee embankments is highly important, as sod is one of the most effective means of protecting the levee against erosion from rain, current, and wavewash. Periodic mowing with tractor-operated equipment is essential to maintaining a good sod growth, and shall be done at such intervals as necessary to keep down weeds and other noxious growth and to prevent the grass height from exceeding twelve (12) inches. The grass shall be mowed to a height of no less than two (2) inches but no greater than twelve (12) inches. The number of mowings required each season will depend on local conditions. The last mowing of the season shall be accomplished under conditions that allow the grass to obtain a height of approximately eight (8) inches to ten (10) inches entering the winter season. Mowing shall be performed to a distance of at least five (5) feet beyond the toe of the levee or berm. Burning grass and weeds is not permitted in the levee maintenance program, except during appropriate seasons when it is not detrimental to sod growth. During the growing season, spraying with herbicides on an as-needed basis is permissible and desirable for weed and brush control on levees and berms. Reseeding and fertilizing shall be completed frequently enough to sustain sod growth on levee embankments for erosion control.

(b) *Earth embankments.* Levee embankments shall be maintained to not less than the design grade and section by replacing any material lost from the crown or slopes. Ruts, washes, slides and subsidence shall be promptly repaired and the entire embankment maintained sufficiently smooth for power mowing. Levee crowns shall be graded as necessary to drain freely and prevent impoundment of rainwater. All brush, trees, and other undesirable growth shall be removed from the levee embankment.

(c) *Animal burrows.* Levees and adjacent landward areas shall be maintained free of all types of animal burrows. Animal burrows, when found, will be backfilled with compacted material and sodded. To prevent recurrence, efforts will be made to exterminate the burrowing animals.

(d) *Prevention of encroachment.* Care must be taken to assure that levees are not encroached upon. Buildings, structures, and storage of materials or equipment shall not be permitted on the levee. Refuse dumps are an item of frequent concern and will not be permitted. Following each high water, any debris deposited on the riverside slope of the levee shall be removed promptly.

(e) *Roads and ramps.* Access roads to and on the levees, including ramps, shall be bladed as necessary to keep the roadway shaped properly and free of ruts, pockets, and washes. Ramp embankments shall be maintained to their design section and design grade. Maintenance shall be performed as necessary to correct any encroachment into the levee crown where roads

cross levees. Road surfacing material shall be replaced as necessary to maintain the road surface in good condition.

(f) *Miscellaneous levee facilities and appurtenances.* Levee facilities and appurtenances that are constructed on, over, or through the levee shall be maintained in a good state of repair and/or inspected at least annually. Facilities and appurtenances that operate only during high water must be checked carefully and repaired as necessary, immediately prior to high water season. Relief wells shall be checked during periods of high water. Wells that do not flow for an extended period of time may have to be tested by pumping to determine the extent of deterioration. Critically deteriorated wells shall be rehabilitated by cleaning, surging, and pumping. Check valves shall be inspected to ensure that they open freely and that the gaskets are in good condition. The most common of the facilities and appurtenances referred to herein are:

1. Drainage structures through the levee.

2. Toe drainage systems.

3. Relief wells.

4. Levee slope protection and protection on dike ends.

5. Gates, cattle guards, and fences.

6. Siphons and pipe crossings.

(3) *Inspection.* Frequent inspections are essential to a good levee maintenance program. In addition to the formal inspections required by the engineer, inspections shall be made prior to the beginning of the flood season, during and immediately following each high water period, and at such intermediate times as necessary to ensure satisfactory care of the levee.

(f) Supplemental regulations. All applicable provisions of the Standards for Stormwater Management and Sediment Reduction (Sections 72-301, 302, 305, 307, 308, 312, 313, 314, 315, 316) administered by the South Carolina Department of Health and Environmental Control pursuant to the South Carolina Stormwater Management and Sediment Reduction Act of 1991 are incorporated herein by reference.

SECTION IX. The Richland County Code of Ordinances, Chapter 26, Land Development; Article VIII, Resource Protection Standards; Section 26-203, Stormwater Management; is hereby amended to read as :

Sec. 26-203. ~~Stormwater management.~~ NPDES Municipal Separate Storm Sewer System (MS4) Program.

(a) *Applicability.*

(1) *General applicability*. Unless otherwise provided in this chapter, any construction or other development affecting the quantity and/or quality of stormwater runoff, or that is located in an area of special flood hazard, shall be in accordance with a stormwater management design plan approved by the Richland County Engineer. Approval of the stormwater plan shall be obtained prior to the issuance of a building permit and no building permit shall be issued until the required drainage improvements are installed or an acceptable bond, as determined by the county engineer, is provided in lieu of completion of the improvements. Drainage improvements shall in all cases be completed prior to occupancy.

(2) *Exemptions.* The provisions of this article shall not apply to:

a. Agricultural and silvicultural land management and cultural practices, or to the construction of on-farm buildings and structures used in farming operation, provided that such structures do not require a building permit and do not impede the flood-carrying capacity of a regulatory floodway

b. Construction or land improvement of a single-family residence or its accessory buildings that are not part of a subdivision or larger common plan or sale. A single-family residence property owner may make land improvements on his/her single lot without an approved stormwater management design plan, provided that such construction or land improvement does not impede the runoff capacity of existing major drainage channels and is not located in an area of special flood hazard.

c. Industrial operations conducted in accordance with valid NPDES individual stormwater pollution prevention permit(s) issued by the Industrial, Agricultural and Stormwater Permitting Division of the South Carolina Department of Health and Environmental Control, provided that such operations are subject to review in accordance with Section 26-64 of this chapter and shall not impede the flood-carrying capacity of a regulatory floodway.

d. Mining and mineral resource extraction operations conducted in accordance with a valid mining permit issued by the Mining and Reclamation Division of the South Carolina Department of Health and Environmental Control, provided that such operations are subject to review in accordance with Section 26-64 of this chapter and shall not impede the flood-carrying capacity of a regulatory floodway.

e. Any agency with the power of eminent domain. Such agencies must apply to the South Carolina Department of Health and Environmental Control for a stormwater management permit.

f. New developments that include twenty thousand (20,000) square feet or less of impervious area in total, provided that such developments shall not impede the flood-carrying capacity of a regulatory floodway.

g. New construction to existing development that includes ten thousand (10,000) square feet or less of new impervious area, provided that such new construction shall not impede the flood-carrying capacity of a regulatory floodway.

h. Construction and maintenance activities associated with provisions of gas, electrification or communication services and more particularly described in Section 72-302A(6) of the *Standards for Stormwater Management and Sediment Reduction* administered by the South Carolina Department of Health and Environmental Control pursuant to the South Carolina Stormwater Management and Sediment Reduction Act of 1991.

(b) *Requirements and standards.*

(1) *Methods of calculating stream flow and runoff.* Stormwater management design plans shall be based on stream flow and runoff for the site to be developed. Formulas and values as prescribed in the county's "Storm Drainage Design Standards" shall be used for calculating all stream flow and runoff. Copies of the Storm Drainage Design Standards may be obtained through the county engineer's office.

a. *Rainfall frequencies.* The following rainfall frequencies shall be used in the calculations for stormwater runoff and stormwater management facility design, depending upon the size of the watershed:

Size-Acres	*Frequency-Years*
300 +	50 year
40 – 299	25 year
0-39	10 year

The two (2) year, twenty-four (24) hour rainfall shall also be used as prescribed in the "Storm Drainage Design Standards".

b. *Future development.* Calculations used in the design of proposed stormwater management facilities shall reflect the anticipated future development of the entire watershed.

c. *Inlet and outlet control curves.* Appropriate inlet control and outlet control curves shall be used to determine headwater depths, where applicable.

(2) *Primary drainage channel requirements.*

a. *General.* All primary drainage channels located within or immediately adjacent to any improvement, development or subdivision shall be protected or improved by the applicant in accordance with the following requirements. The applicant shall be responsible for carrying out the proposed work in accordance with the approved stormwater management design plan, and in compliance with the requirements of this section. The applicant shall plan and carry out his/her developments in a manner that will not interfere with or restrict the flow of water, nor increase the 100-year flood elevation by more than one (1) foot. The developer shall be responsible for any improvements to such channels, as needed to handle increased runoff or other changes resulting from his/her development, in accordance with the provisions of this section.

b. *Dedication of primary drainage channels.* All land adjacent to a primary drainage channel and not protected by levees, dikes, or fill shall be dedicated for the purpose of providing drainage right-of-way as follows:

1. *Commercial and/or residential subdivisions.* In commercial and/or residential subdivisions, drainage easements of satisfactory width to provide working room for construction and maintenance equipment shall be deeded to the county for all drainage improvements, including stormwater management facilities, and shall be separate and apart from adjoining lots.

2. *Planned developments or town and country developments.* In Planned Development Districts or Town and Country Districts, the property owner(s) or homeowners' association shall be responsible for maintenance of drainage channels and easements. The final plat approved for recordation shall indicate the available public easements for drainage channels. The county shall have the right to encroach onto these public easements or permit others to encroach for any purpose deemed appropriate by the county engineer. In no way does this right of encroachment lessen the obligation of the property owner(s) or the responsibility of the homeowners' association for maintenance of the drainage channels and easements.

c. *Existing channel modifications.* The existing channel lying within or contiguous to a subdivision or parcel of land proposed for development or redevelopment may be:

1. Cleaned to provide for free flow of water; and

2. Straightened, widened, and improved to prevent overflow resulting from the 50-year frequency rainfall beyond the limits of the dedicated drainage easement provided for in subsection b. above; provided:

[a] The stormwater management design plan contains details of the proposed channel modifications and includes either:

[1] A mitigation plan for water quality impacts, including best management practices to be implemented as part of the channel modification and overall project; or

[2] An engineering analysis demonstrating no water quality impacts resulting from the proposed modifications.

[b] The stormwater management design plan must be approved in accordance with this section prior to commencing any channel modifications.

Whenever existing channel modifications are made, sodding, backsloping, cribbing, and other bank protection shall be designed and constructed to control erosion for the anticipated conditions and flow resulting from a 50-year rainfall.

d. *Areas of special flood hazard.* In areas of special flood hazard, final grading of all lots and building sites for new construction or substantial improvement shall provide for elevation on fill, pilings, or earth filled curtain walls of the lowest habitable floor to at least two (2) feet above the 100-year flood elevation. Where fill is used to meet this requirement, the area two (2) feet above the 100-year flood elevation shall extend at least ten (10) feet from each side of the building pad. Certain types of non-residential structures are permitted within the floodplain if properly "flood-proofed" in compliance with Section 26-104(d) of this chapter and all applicable building code requirements.

e. *Primary channels located within road easements.* Primary drainage channels located within road easements shall be placed in enclosed storm sewers, except under the following conditions:

1. Where a paved road surface at least two (2) lanes wide is provided on both sides of an improved channel so as to provide access to abutting properties.

2. For lots with a double-road frontage, an open drainage channel is permitted between the rear lot line and the paved road, provided that access from the road to the lot is prohibited both at the time of construction and in the future.

3. When a condition outlined in either 1. or 2. above is present, adequate width shall be dedicated as right-of-way to provide for the maintenance of an improved drainage channel and its bank.

f. *Levees protecting structures.* All levees protecting residential structures or non-residential structures that are not flood-proofed shall be designed, constructed, and maintained to provide protection against the 500-year flood, plus three (3) feet of freeboard. Flood elevations shall be as shown on the latest Flood Insurance Rate Maps or as determined by appropriate hydrologic methods. Any levee constructed or improved under this subsection shall also comply with the other provisions of this article, including, but not limited to, subsection g. below.

g. *Structures or obstructions in regulatory floodway*. Not withstanding any other provision of this chapter, no levees, dikes, fill materials, structures or obstructions that will impede the free flow of water during times of flood will be permitted in the regulatory floodway, unless:

1. Such proposed impediment is a permitted use pursuant to Section 26-104(d)(2)i. of this chapter; or

2. Such impediment was approved by the County Engineer under this subsection g., or under any predecessor provision, before January 1, 2001;

PROVIDED, HOWEVER, that any specified activity permitted above must comply with all applicable federal, state, and local requirements, including, but not limited to, 44 C.F.R. 60.3(d)(3), as amended. Nothing in this subsection g. shall limit provisions in this Chapter or elsewhere authorizing or requiring the maintenance and repair of levees, dikes, dams, and similar structures; provided, however, that this sentence shall not be construed as authorizing or requiring the repair or maintenance of any such structure to the extent that such repair or maintenance would result in a structure that would be higher or wider than it was before the need arose for such repair or maintenance.

h. *National Flood Insurance Program.* All applicable regulations of the National Flood Insurance Program are incorporated by reference herein.

(3) *Secondary drainage channel and surface requirements.*

a. *General.* All secondary drainage channels that are within or immediately adjacent to an improvement, development, or subdivision shall be protected and improved by the applicant in accordance with the following requirements.

b. *Drainage maintenance.* Drainage easements of satisfactory width to provide working room for construction and maintenance equipment shall be dedicated to the county for all drainage improvements in subdivision developments, including stormwater management facilities. Drainage improvement maintenance for planned developments, town and country developments, and commercial buildings shall be the responsibility of the property owner(s) or home owner's association.

c. *Improvements.*

1. Secondary drainage channels having a primary function of, 1) collecting surface water from adjacent properties, or 2) intercepting and diverting side hill drainage, shall be improved open channels.

2. Secondary drainage channels having a primary function of, 1) transporting surface water through a block or development; or 2) collecting surface water from cross channels, shall be improved as follows:

[a] Secondary drainage channels having drainage basins forty (40) acres or larger shall be improved with either a closed storm sewer or improved open channel designed to carry the runoff resulting from a 25-year frequency rainfall. A natural stream may be approved by the county engineer for environmental or aesthetic purposes, provided that it has the required carrying capacity and that flood protection requirements are met.

[b] Secondary drainage channels having less than forty (40) acres shall be improved with closed storm sewers designed to carry the runoff resulting from a 10-year frequency rainfall. Variation from this requirement may be approved by the county engineer for environmental or aesthetic purposes, provided that it has the required carrying capacity and that flood protection requirements are met.

3. All improvements to drainage channels shall be carried out such that waters protected by the Federal Clean Water Act are not degraded.

d. *Areas of special flood hazard.* In areas of special flood hazard, final grading of all lots and building sites for new construction, or substantial improvement of residential structures, shall provide for elevation on fill, pilings, or earth filled curtain walls of the lowest habitable floor to at least two (2) feet above the 100-year flood elevation. Where fill is added to meet this requirement, the area two (2) feet above the 100-year flood elevation shall extend at least ten (10) feet from each side of the building pad. Certain types of structures are permitted within the floodplain if properly "flood-proofed" in compliance with Section 26-104(d) of this chapter and all applicable building code requirements.

e. *Secondary drainage channels within road easements.* Secondary drainage channels located within road easements shall be placed in enclosed storm sewers, except under the following conditions:

1. Where a paved road surface at least two (2) lanes wide is provided on both sides of an improved channel so as to provide access to abutting properties.

2. For lots with a double-road frontage, an open drainage channel is permitted between the rear lot line and the paved road, provided that access from the road to the lot is prohibited both at the time of construction and in the future.

3. When a condition outlined in either 1. or 2. above is present, adequate width shall be dedicated as right-of-way to provide for the maintenance of an improved drainage channel and its bank.

f. *Off-site discharges.* Off-site discharges from closed storm sewers or improved open channels will only be permitted at natural streams or man-made drainage channels acceptable to the county engineer, unless a drainage easement is obtained from the adjoining landowner. Adequate provisions shall be made to reduce discharge velocities such that the receiving channel is not degraded. When off-site drainage channels are not adequate to accept the additional runoff resulting from development, the developer shall install on-site facilities for controlled release of stormwater runoff. These on-site drainage facilities shall be designed to limit the runoff rate to predevelopment levels during the design storm and the two-year storm.

g. *Additional development requirements.*

1. *Single-family residential, duplex or manufactured home development.* Site grading for single-family, duplex, or manufactured home development shall be carried out in such a manner that surface water from each dwelling lot will flow directly to a storm sewer, improved channel, sodded swale, or paved road without running more than two hundred (200) feet.

2. *Commercial, industrial, multi-family, and institutional development.* For commercial, industrial, multi-family, and institutional development, roofs, paved areas, yards, courts, courtyards, and other impervious surfaces shall be drained into a stormwater management facility, with the exception that such drainage may flow directly into a road, curb and gutter system, or improved channel when of small area and approved by the county engineer. Construction of buildings over storm drainage improvements is not permitted.

h. *Surface water on roads.* Surface water collected on roads shall be diverted to enclosed storm sewers or drainage channels at satisfactory intervals to prevent overflow of the road and its curbs and gutters, where provided, during a 10-year frequency rainfall.

(4) *Minimum water quality requirements.*

a. *Minimum water quality requirements.* "Storm Drainage Design Standards" shall be established by the county engineer, and shall provide for minimum quality control requirements for development. Such requirements shall be adhered to unless waived by the county engineer after a determination that both of the following have occurred:

1. It can be shown, by engineering calculations acceptable to the county engineer, that stormwater management facilities are not needed to control developed peak discharge rates and meet water quality requirements.

2. It can be shown that installing such facilities would not be in the best interest of local citizens or the county.

b. *Additional requirements.* The county engineer may determine that additional stormwater management facilities, beyond those required under this section, are necessary for on-site stormwater management. Additional facilities may be needed to enhance or provide for the general health, safety, and welfare; to correct unacceptable or undesirable existing conditions; or to provide protection for future development in a more

desirable fashion. If such a determination is made, the county engineer may do the following:

1. Require that the owner/applicant grant any necessary easements to provide access to or drainage from the stormwater management facility.

2. Develop an agreement with the owner/applicant for the over-design of the stormwater management facility to provide additional water quality benefits beyond that required by this section.

3. Recommend financial participation by the county in construction of the stormwater management facility, to the extent that such facility exceeds the on-site stormwater management requirements, as determined by the county engineer. The county may pay the additional expenses incurred in providing the additional storage capacity or water quality benefits, including land costs and increased design and construction costs.

(5) *Design criteria for improvements.*

a. *Open channels.* Open channels shall be provided with an improved section that will carry runoff from the appropriate design storm and preclude the creation of backwater inundating any areas outside of dedicated drainage easements. The channel shall be designed to minimize negative water quality impacts and protect against erosion in accordance with standards adopted by the county engineer.

b. *Closed storm sewers and culverts.* Closed storm sewers and culverts shall be constructed of pre-cast or prefabricated pipe or box culvert or built in place, of closed box design, in conformity with county specifications. They shall be sized to carry the runoff from the appropriate design storm and to preclude the creation of headwater inundating any areas outside of dedicated drainage easements.

c. *Bridges.* Bridges shall be designed in accordance with standards adopted by the county engineer. Construction shall be in accordance with South Carolina Department of Transportation specifications.

d. *Levees.* Levees shall be designed, constructed, and maintained as follows:

1. *U.S. Army Corps of Engineers Manuals.* Design and construction shall be in accordance with U.S. Army Corps of Engineers' Manual EM 1110-2-1913 (31 March 1978) *Design and Construction of Levees*. The design and construction of drainage systems within levees shall be in accordance with the U.S. Army Corps of

Engineers' Manual EM 1110-2-1413 (15 Jan 1987) *Hydrologic Analysis of Interior Areas*. A South Carolina Registered Professional Engineer shall certify that he/she has been involved in the design, construction, and inspection phases and shall certify that the construction meets requirements of the corps of engineers.

2. *Maintenance*. Owners of levees will perform the necessary and required maintenance and provide appropriate records to the county engineer. These records shall include all of the following:

[a] Signed agreements of perpetual operation and maintenance between the constructor and/or owner and the county.

[b] As-built construction plans sealed by a South Carolina Registered Professional Engineer.

[c] A levee maintenance program in accordance with the Levee Maintenance Standards and Procedures of the county.

[d] Periodic maintenance reports as required by the county engineer.

e. *Stormwater management facilities.*

1. *General*. Stormwater management facilities may include both structural and non-structural elements incorporating quantity and/or quality control. A variety of different types of stormwater management facilities exist and can be used to satisfy the minimum quantity and/or quality control requirements. All proposed stormwater control measures shall be in accordance with the county's "Storm Drainage Design Standards". The county engineer may reject a stormwater management plan if it incorporates structures and facilities that do not meet the requirements of this section or if the plan utilizes numerous small structures where other alternatives are physically possible.

2. *Restriction of runoff rate*. Stormwater management facilities shall restrict the peak post-development runoff rate to the peak pre-development rate for the design storm. The design storm shall be ten (10), twenty-five (25), or fifty (50) years, depending on the size of the drainage basin. Overflow structures and emergency spillways shall be designed to accommodate the 100-year rainfall.

3. *Wet ponds*. Wet ponds (retention structures with a permanent pool) shall be utilized for drainage areas of twenty-five (25) acres or more, in accordance with the county's "Storm Drainage Design

Standards". Wet ponds may be required for smaller drainage areas, as determined by the county engineer on a case-by-case basis. In all cases, wet ponds shall be located at least fifteen (15) feet from the property line of adjacent property.

4. *Wet (retention) and dry (detention) facilities.* Where wet (retention) and dry (detention) facilities are used, designs that consolidate them into a limited number of large structures are preferred over designs utilizing a large number of smaller structures. Additional state and/or federal permits may be required for larger stormwater management facilities impacting waters of the state protected by the Federal Clean Water Act.

5. *Landscaping.* Landscaping of stormwater management areas shall conform to all requirements of this chapter and to the design approved by the public works department for any particular development. Retention/detention areas shall be landscaped with trees, shrubs, ground covers, and native perennials appropriate to the function as a wet or dry basin. If the landscaped area is also designed to meet on-site stormwater management requirements, one of the following must be met:

   [a] The area must be designed to provide an aesthetic focal point, such as a lake, creek or other water feature; to preserve a tree grouping; or to utilize the existing terrain and/or geological features of the site; or

   [b] The landscaping for the basin shall be integrated within the entire landscape plan.

6. *Stormwater facilities records requirements.* Drainage system and all stormwater management structures within the county (including public and private portions) shall be designed to the same engineering and technical criteria and standards. Owners of stormwater management facilities shall perform the required maintenance and provide appropriate records to the county engineer. These records shall include all of the following:

   [a] As-built construction plans certified by a South Carolina Registered Civil Engineer, Registered Landscape Architect, or Tier B. Land Surveyor; and

   [b] Periodic maintenance reports as required by the county engineer.

(6) *Maintenance of stormwater management facilities.*

a. *General maintenance requirements*. All stormwater management facilities shall be maintained by the owner(s) in such a manner as to maintain and enhance the general health, safety, and welfare; to reduce and minimize damage to public and private property; to reduce and minimize the impact of such facilities on land and stream channel erosion; to promote the attainment and maintenance of water quality standards; and to maintain, as nearly as possible, the pre-development runoff characteristics of the area. All maintenance of privately owned stormwater management facilities shall be at the sole cost and expense of the owner(s) of such facilities.

b. *Failure to maintain stormwater management facilities*. It shall be unlawful for the owner or occupant of any property upon which a stormwater management facility is located, to fail to maintain the facility in such a manner that the facility creates a danger to the general health, safety, and welfare. Should the owner fail to so maintain the stormwater management facility, this failure shall constitute a public nuisance.

c. *County assistance in maintenance*. If the county assists private owners with the design of stormwater management facilities, this does not imply any maintenance responsibilities by the county. The maintenance of all such facilities shall be the sole responsibility of the property owner(s).

(7) *Illicit discharges and improper disposal.*

a. *Illicit connections*.

1. *Illegal discharge*. It shall be unlawful to use any stream or watercourse to carry off water from any kitchen sink, bathtub, or privy, or to carry off any fluid of an offensive or dangerous nature. No water or refuse from any industrial, commercial, or institutional process, including water used for heating or cooling, shall be discharged in any stream or watercourse by any person until such person has obtained the appropriate local, state, and/or federal permits.

2. *Destruction of stormwater facilities*. It shall be unlawful, either willfully or negligently, to injure, deface, mutilate, destroy, tamper or interfere with any county-owned property or any property used in the county's publicly owned stormwater management system.

3. *Connection to county's publicly owned system*. Building permits shall be required before the construction of any connection to the county's publicly owned stormwater management system.

b. *Improper disposal*. It shall be unlawful for any person to discharge non-stormwater to any stormwater conveyance with the exception of the following:

1. Water line flushing.

2. Diverted stream flows.

3. Rising ground water.

4. Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005 [20]) to separate storm sewers.

5. Uncontaminated pumped ground water discharges from potable water sources.

6. Foundation drains.

7. Air conditioning condensation.

8. Irrigation water.

9. Springs.

10. Water from crawl space pumps.

11. Footing drains.

12. Lawn watering.

13. Car washing at one's residence, not for hire.

14. Flows from riparian habitats and wetlands.

15. Dechlorinated swimming pool discharges.

16. Road wash water.

17. Discharges from fire fighting.

c. *Organic waste*.

1. *Yard waste*. It shall be the duty of the property owner to keep grass clippings, leaves, tree and shrub clippings, stumps, organic materials, or any other yard trash out of gutters, inlets, catch basins, and side ditches. It shall be unlawful to place grass

clippings, leaves, tree and shrub clippings, stumps, organic materials, or any other yard trash in any road, storm drain, stream, storm water conveyance, or any other location where concentrated flows could wash such wastes into the storm sewer system.

2. *Human and animal waste.* Privies, pigpens, and stables of all kinds shall be placed far enough away from any stream, ditch, drain, or other stormwater conveyance that human or animal waste(s) will not run into them.

(8) *Spill response.*

a. *General.* The Richland County Director of Emergency Services or an authorized fire official, shall have the authority to summarily abate, control and contain hazardous materials that are emitted into the environment and endanger the health or safety of the general public or the environment. The director of emergency services or an authorized fire official shall have the authority to enter public or private property with or without the owner's consent, to respond to such hazardous materials emergencies. The director of emergency services or authorized fire official shall determine the type, amount, and quantity of equipment and personnel required to adequately abate, control, and contain all hazardous materials emitted into the environment.

b. *Liability for hazardous spill.* The property owner and/or person responsible for the hazardous materials spill or release shall be held financially liable for the response, control, containment, equipment and materials costs, including legal fees, incurred by the county and supporting agencies. The property owner and/or person responsible for the hazardous material spill may provide personnel to assist abatement, removal and remedial measures, provided such personnel have been adequately equipped and trained pursuant to the requirements of local, state and federal laws. The county shall not be liable for the use of outside personnel. Assistance shall consist of any or all of the following:

1. Informing Richland County Emergency Services Department personnel of all matters pertaining to the incident.

2. Supplying emergency response plan information for the site.

3. Supplying emergency response equipment, personnel and materials.

Charges for hazardous materials emergency response shall be based upon the actual costs of response, control, containment, equipment and materials, including legal fees. All fees collected

shall be turned in to the county treasurer and credited to the county's general fund.

c. *Fire incidents.* In fire incidents involving hazardous materials or exposure to hazardous materials, no fee will be assessed for resources normally associated with fire fighting operations. Fees shall be assessed for those activities and resources associated with abatement, control and containment of the hazardous materials involvement or exposure.

(9) *Supplemental regulations.* All applicable provisions of the standards for Stormwater Management and Sediment Reduction (Section 72-301, 302, 305, 307, 308, 312, 313, 314, 315 and 316) administered by the South Carolina Department of Health and Environmental Control pursuant to the South Carolina Stormwater Management and Sediment Reduction Act of 1991 are incorporated by reference herein. All applicable provisions of the NPDES and Land Application Permits Regulation (Section 61-9.122 Part A 122.2, 122.3, 122.4 and Part B 122.26) administered by the South Carolina Department of Health and Environmental Control pursuant to the South Carolina Pollution Control Act of 1976 are incorporated by reference herein.

(c) *Inspection of stormwater facilities.*

(1) *Inspection during construction.* The county engineer shall periodically inspect the work completed under the approved stormwater management design plan. Upon completion of such work, he/she shall make a final inspection, and if the work has been carried out in accordance with the plan, he/she shall issue a letter of satisfactory completion upon receipt of the as-built drawings.

(2) *Right of entry.*

a. *General.* The county engineer shall have a right-of-entry on or upon the property of any person subject to this section. The county engineer shall be provided ready access to all parts of the premises for the purposes of inspection, monitoring, sampling, inventory, examination and copying of records, and the performance of any other duties necessary to determine compliance with this section.

b. *Security.* Where a person has security measures in force requiring proper identification and clearance before entry onto the premises, the person shall make necessary arrangements with security guards so that, upon presentation of suitable identification, the county engineer will be permitted to enter without delay for the purposes of performing specific responsibilities.

c. *Sampling.* The county engineer shall have the right to set up on the person's property such devices as are necessary to conduct sampling and/or metering of the property as it relate to stormwater management

d. *Obstruction to access.* Any temporary or permanent obstruction to safe and easy access to the areas to be inspected and/or monitored shall be removed promptly by the person at the written or verbal request of the county engineer. The costs of clearing such access shall be borne by the person.

e. *Imminent threat to health and/or safety.* In cases where an imminent threat to the health or safety of the general public or the environment is suspected, the county engineer or the director of emergency services shall inspect existing stormwater management facilities to determine if immediate action is necessary. Such inspection shall be made with or without the consent of the owner, manager, or signatory official. If such consent is refused, the county engineer may seek issuance of an administrative search warrant.

(d) *Levees.*

(1) *General.* Adequate levee maintenance is essential and cannot be overemphasized. Failure to properly maintain levees may render the levees inoperative during periods when their protection is needed. For safety in times of high water or floods, levee maintenance will be thorough and continuous. This requires a balanced maintenance program based on defined standards and procedures.

(2) *Maintenance standards and procedures.* Levees in Richland County will be maintained in accordance with the following standards to ensure serviceability against floods at all times.

(a) *Sod growth.* Maintenance of a sturdy sod growth on levee embankments is highly important, as sod is one of the most effective means of protecting the levee against erosion from rain, current, and wavewash. Periodic mowing with tractor operated equipment is essential to maintaining a good sod growth, and shall be done at such intervals as necessary to keep down weeds and other noxious growth and to prevent the grass height from exceeding twelve (12) inches. The grass shall be mowed to a height of no less than two (2) inches but no greater than twelve (12) inches. The number of mowings required each season will depend on local conditions. The last mowing of the season shall be accomplished under conditions that allow the grass to obtain a height of approximately eight (8) inches to ten (10) inches entering the winter season. Mowing shall be performed to a distance of at least five (5) feet beyond the toe of the levee or berm. Burning grass and weeds is not permitted in the levee maintenance program, except during appropriate seasons when it is not detrimental to

sod growth. During the growing season, spraying with herbicides on an as-needed basis is permissible and desirable for weed and brush control on levees and berms. Reseeding and fertilizing shall be completed frequently enough to sustain sod growth on levee embankments for erosion control.

(b) *Earth embankments.* Levee embankments shall be maintained to not less than the design grade and section by replacing any material lost from the crown or slopes. Ruts, washes, slides and subsidence shall be promptly repaired and the entire embankment maintained sufficiently smooth for power mowing. Levee crowns shall be graded as necessary to drain freely and prevent impoundment of rainwater. All brush, trees, and other undesirable growth shall be removed from the levee embankment.

(c) *Animal burrows.* Levees and adjacent landward areas shall be maintained free of all types of animal burrows. Animal burrows, when found, will be backfilled with compacted material and sodded. To prevent recurrence, efforts will be made to exterminate the burrowing animals.

(d) *Prevention of encroachment.* Care must be taken to assure that levees are not encroached upon. Buildings, structures, and storage of materials or equipment shall not be permitted on the levee. Refuse dumps are an item of frequent concern and will not be permitted. Following each high water, any debris deposited on the riverside slope of the levee shall be removed promptly.

(e) *Roads and ramps.* Access roads to and on the levees, including ramps, shall be bladed as necessary to keep the roadway shaped properly and free of ruts, pockets, and washes. Ramp embankments shall be maintained to their design section and design grade. Maintenance shall be performed as necessary to correct any encroachment into the levee crown where roads cross levees. Road surfacing material shall be replaced as necessary to maintain the road surface in good condition.

(f) *Miscellaneous levee facilities and appurtenances.* Levee facilities and appurtenances that are constructed on, over, or through the levee shall be maintained in a good state of repair and/or inspected at least annually. Facilities and appurtenances that operate only during high water must be checked carefully and repaired as necessary, immediately prior to high water season. Relief wells shall be checked during periods of high water. Wells that do not flow for an extended period of time may have to be tested by pumping to determine the extent of deterioration. Critically deteriorated wells shall be rehabilitated by cleaning, surging, and pumping. Check valves shall be inspected to ensure that they open freely and that the gaskets are in good condition. The most common of the facilities and appurtenances referred to herein are:

~~1. Drainage structures through the levee.~~

~~2. Toe drainage systems.~~

~~3. Relief wells.~~

~~4. Levee slope protection and protection on dike ends.~~

~~5. Gates, cattle guards, and fences.~~

~~6. Siphons and pipe crossings.~~

~~(3) *Inspection.* Frequent inspections are essential to a good levee maintenance program. In addition to the formal inspections required by the engineer, inspections shall be made prior to the beginning of the flood season, during and immediately following each high water period, and at such intermediate times as necessary to ensure satisfactory care of the levee.~~

(a) *Purpose and applicability.*

(1) *Purpose*. The primary intent of this section is to minimize the introduction of pollutants into stormwater runoff and subsequently into surface waters of the state. This will be accomplished through the implementation of programs developed to address specific activities that contribute to the contamination of stormwater. Richland County is required by its NPDES permit to regulate all discharges within the political boundary of the County; therefore, the County will take any measures necessary to comply with its permit and protect water quality within the jurisdictional areas defined with the NPDES permit. Discharge of pollutants shall be reduced to the Maximum Extent Practicable (MEP), shall not cause, nor contribute to, violations of South Carolina Water Quality Standards, and shall be in compliance with Total Maximum Daily Loads (TMDLs) where applicable.

(2) *General*. Applicability. The SCDHEC re-issued National Pollutant Discharge Elimination System (NPDES) permit is hereby adopted in its entirety. This adoption includes individual programs developed as part of the implementation of the NPDES permit. The current NPDES permit became effective on September 11, 2006 and expires on September 10, 2011. The duration of the adoption of the NPDES permit will be for a term of five (5) years, and will be automatically renewed for a like term unless this provision is amended by county council with an intent to terminate. Richland County personnel, the Director of Public Works, and Stormwater Management personnel, or their designees, may enforce any of the regulations in regards to SCDHEC delegated Richland County's NPDES storm water discharge permit programs or language.

(b) *Components of NPDES MS4 Program*.

(1) *Pesticide, Herbicide and Fertilizer (PHF) Program.* The intent of the Pesticide, Herbicide and Fertilizer (PHF) Program is to aid Richland County in reducing the discharge of pollutants related to the storage and application of PHFs applied by county employees or residents or contractors to public rights-of-way, parks, and other property.

a. All commercial and non-commercial application of pesticides is regulated in the state of South Carolina by the Department of Pesticide Regulation (DPR). The DPR requires mandatory licensing for applicators involved in pest control activities in structural, landscape and turf, aquatic, and public health areas.

b. Only Richland County staff members who are properly licensed by the DPR, or who are directly supervised by a licensed applicator, will be permitted to apply pesticides and herbicides.

c. *Commercial Applicators.*

1. Richland County will only contract for pesticide and herbicide application with commercial applicators that are licensed through the DPR.

2. All commercial applicators who are contracted by the county will maintain current licensing through the DPR throughout the entire contract with the county.

3. Commercial applicators contracted by the county to apply pesticides and herbicides must provide written notification to the appropriate county divisional manager, the Public Works Director, or the Vector Control Director (or their designee) prior to commencement of any work involving PHF application.

d. Inspections may be conducted within the county by the Stormwater Manager or designee to ensure compliance with the PHF Program. The county may require monitoring if deemed necessary to protect water quality within the county.

(2) *Illicit Connections, Illegal Discharges, Illegal Dumping, Improper Disposal, Organic Waste and Spills*. The intent of this section is to aid Richland County in reducing and eliminating the discharge of pollutants to the county's MS4 related to illicit/illegal discharges, illegal dumping, destruction of stormwater facilities, improper disposal, organic waste and spills. This section will also fulfill one of the Minimum Control Measures of the Phase II Rule: Illicit Discharge Detection and Elimination (IDDE). The county shall have the authority to carry out all inspection, surveillance and monitoring procedures necessary to determine

compliance and noncompliance with permit conditions, including the prohibition on illicit discharges to the county's municipal separate storm sewer, as well as the stormwater systems within the jurisdictional areas of its NPDES co-permittees.

a. *Illicit Connections*.

1. It shall be unlawful to connect or allow connection to any sanitary sewer. This includes existing connections.

2. It shall be unlawful to cause or allow an illicit discharge to the stormwater system, or any component thereof, or onto driveways, sidewalks, parking lots, sinkholes, creek banks, or other areas draining to the stormwater system.

3. Building permits shall be required before the construction of any connection to the county's publicly owned stormwater management system.

b. *Improper Disposal*. It shall be unlawful to use any stream or watercourse to carry off water from any kitchen sink, bathtub, or privy, or to carry off any fluid of an offensive or dangerous nature. No water or refuse from any industrial, commercial, or institutional process, including water used for heating or cooling, shall be discharged in any stream or watercourse by any person until such person has obtained the appropriate local, state, and/or federal permits. Richland County shall be allowed on-site if there is a suspected illegal discharge for inspection and monitoring as deemed appropriate for the protection of water quality.

c. *Illegal Dumping*. It shall be unlawful to dispose of any trash or wastes in an unpermitted area or by disposing of such trash or waste into any storm drain or stormwater conveyance. Richland County shall be allowed on-site if there is suspected illegal dumping for inspection and monitoring as deemed appropriate. In addition, all provisions and authority contained within Chapter 12 (Garbage, Trash and Refuse) and Chapter 13 (Hazardous Materials) of this Code of Ordinances that are applicable to the protection of water quality shall be incorporated by reference to this section.

d. *Destruction of Stormwater Facilities*. It shall be unlawful, either willfully or negligently, to injure, deface, mutilate, destroy, tamper or interfere with any county-owned property or any property used in the county's publicly owned stormwater management system.

e. *Illegal Discharges*. It shall be unlawful for any person to discharge non-stormwater to any stormwater conveyance. The following non-storm water

discharges to the MS4, wherever they are not a source of pollutants, are permitted:

1. Water line flushing.

2. Diverted stream flows.

3. Rising ground water.

4. Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005 [20]) to separate storm sewers.

5. Uncontaminated pumped ground water discharges from potable water sources.

6. Foundation drains.

7. Air conditioning condensation.

8. Irrigation water.

9. Springs.

10. Water from crawl space pumps.

11. Footing drains.

12. Lawn watering.

13. Car washing at one's residence, not for hire.

14. Flows from riparian habitats and wetlands.

15. Dechlorinated swimming pool discharges.

16. Road wash water.

17. Discharges from fire fighting.

18. Dye Testing is an allowable discharge provided that the Director of Public Works or Stormwater Management personnel, or designee, is verbally notified prior to the time of testing.

f. *Oils, Toxics and Household Hazardous Wastes*. It shall be unlawful to discharge or dispose of used motor vehicle fluids and household hazardous wastes into the MS4.

g. *Organic Waste*.

1. *Yard waste*. It shall be the duty of the property owner to keep grass clippings, leaves, tree and shrub clippings, stumps, organic materials, or any other yard trash out of gutters, inlets, catch basins, and side ditches. It shall be unlawful to place grass clippings, leaves, tree and shrub clippings, stumps, organic materials, or any other yard trash in any road, storm drain, stream, storm water conveyance, or any other location where concentrated flows could wash such wastes into the storm sewer system. All yard waste shall be bagged and set out for collection weekly.

2. *Human and animal waste*. Privies, pigpens, and stables of all kinds shall be placed far enough away from any stream, ditch, drain, or other stormwater conveyance that human and/or animal waste(s) will not run into them. The Stormwater Manager (or his/her designee) shall have the authority to determine whether a privy, pigpen or stable is deemed "far enough away" from stormwater conveyances in order that the human or animal waste(s) will not adversely impact the receiving conveyance.

h. *Spill Response*.

1. *General*. The Richland County Director of Emergency Services, or an authorized fire official, shall have the authority to summarily abate, control and contain hazardous materials that are emitted into the environment and endanger the health or safety of the general public or the environment. The director of emergency services or an authorized fire official shall have the authority to enter public or private property with or without the owner's consent, to respond to such hazardous materials emergencies. The director of emergency services or authorized fire official shall determine the type, amount, and quantity of equipment and personnel required to adequately abate, control, and contain all hazardous materials emitted into the environment.

2. *Liability for hazardous spill*. The property owner and/or person responsible for the hazardous materials spill or release shall be held financially liable for the response, control, containment, equipment and materials costs, including legal fees, incurred by the county and supporting agencies. The property owner and/or person responsible for the hazardous material spill may provide personnel to assist abatement, removal and remedial measures, provided such personnel have been adequately equipped and trained pursuant to the requirements of local, state and federal laws. The county shall

not be liable for the use of outside personnel. Assistance shall consist of any or all of the following:

[a] Informing Richland County Emergency Services Department personnel of all matters pertaining to the incident.

[b] Supplying emergency response plan information for the site.

[c] Supplying emergency response equipment, personnel and materials.

[d] Charges for hazardous materials emergency response shall be based upon the actual costs of response, control, containment, equipment and materials, including legal fees. All fees collected shall be turned in to the county treasurer and credited to the county's general fund.

3. Fire incidents. In fire incidents involving hazardous materials or exposure to hazardous materials, no fee will be assessed for resources normally associated with fire fighting operations. Fees shall be assessed for those activities and resources associated with abatement, control and containment of the hazardous materials involvement or exposure.

i. *Sanitary Sewer Overflows (SSO) and Inflow/Infiltration (I/I).*

1. Every person, firm, corporation or other entity using the sanitary sewer system of the county, or pipelines connected to said system, shall maintain all sewer lines connected to the county's sewer system, or privately owned sewer collection systems which are connected to the county's system, in good condition so that the sewer will not:

[a] Permit any leakage of stormwater or other surface water or groundwater into the sewer service lines or sewer collection lines system either by visual observation or low pressure leakage test.

[b] Receive rainwater flow from roof downspout connections, yard drains, uncovered building area drains, sump pumps or other sources of rainwater flow and any other source of inflow/infiltration.

2. The county shall notify all persons, firms, corporations, or other entities where sewer service lines or sewer collection systems are found to have excessive inflow or infiltration that their service line or sewer collection system must be repaired so as to eliminate such violation. Such repairs must be completed within sixty days of notification by the county, or within such other time schedule as prescribed by the county.

3. All private and public sanitary sewer systems that are operated within Richland County shall report any incidences of an SSO occurring in Richland County, or has the potential to impact surface waters with untreated wastewater within Richland County, to the Stormwater Management Division of the Richland County Public Works Department. This reporting requirement shall be in addition to any other state or local SSO reporting requirement and within the same required reporting timeframe.

4. The Director of Public Works and Stormwater Management personnel, or their designees, bearing proper credentials and identification, may enter and inspect all sanitary sewer systems and appurtenances if there is evidence of sanitary sewer overflows which have impacted or have the ability to impact water quality with the County's jurisdictional areas. County personnel shall duly notify the owner of the system or the certified operator on site, and the inspection shall be conducted at a reasonable time.

(3) *Industrial and High Risk Runoff Program*. The intent of the Richland County Industrial and High Risk Runoff Program is to aid Richland County in reducing the amount of stormwater runoff and improving the quality of runoff from industrial and high risk facilities. The county may review industrial stormwater pollution prevention plan(s), as well as spill prevention control and countermeasure (SPCC) plan(s), as required under the National Pollutant Discharge Elimination System (NPDES) storm water discharge permit, while outfall monitoring indicates a suspected violation, or proactively in its routine water quality checks, as per below guidelines:

a. The Director of the Public Works Department and/or Stormwater Management personnel, or designee, bearing proper credentials and identification, may enter and inspect all properties for regular inspections, periodic investigations, monitoring, observation, measurement, enforcement, sampling and testing. The personnel shall duly notify the owner of said property or the representative on site, and the inspection shall be conducted at a reasonable time.

b. Upon refusal by any property owner to permit an inspector to enter or continue an inspection, the inspector shall terminate the inspection or

confine the inspection to areas concerning which no objection is raised. The inspector shall immediately report the refusal and the grounds to the director. The director shall promptly seek issuance of an administrative search warrant.

c. In the event that the director or the designee reasonably believes that discharges from the property into the Richland County MS4 may cause an imminent and substantial threat to human health or the environment, the inspection may take place at any time and without notice to the owner of the property or a representative on site. The inspector shall present proper credentials upon reasonable request by the owner or representative.

d. Inspection reports shall be maintained in a permanent file located in the Storm Water Management Division of the Public Works Department.

e. At any time during an inspection or at such other times as the director or his/her designee may request information from an owner or representative, the owner or representative may identify areas of its facility or establishment, material or processes which contains or which might reveal a trade secret. If the director or his/her designee has no clear and convincing reason to question such identification, all material, processes and all information obtained within such areas shall be conspicuously labeled "CONFIDENTIAL TRADE SECRET." The trade secret designation shall be freely granted to any material claimed to be such by the owner or representative unless there is clear and convincing evidence for denying such designation. In the event the director does not agree with the trade secret designation, the material shall be temporarily designated a trade secret, and the owner or representative may request an appeal of the director's decision in the manner in which all such appeals are handled in this article.

f. All trade secret material which are prepared or obtained by or for the director shall be marked as such and filed in a secure place separate from regular, non-secret files, and documents. Reports from samples prepared or obtained by or for the director or submitted for laboratory analysis shall be marked as such and treated in the same manner as other trade secret material. Trade secret material shall not be divulged by the director to anyone other than:

1. Other employees of the county or employees of the state or federal governments engaged in an inspection or enforcement proceeding involving the designated material; and

2. To administrative or judicial courts upon order to so divulge the material to the court.

g. *Monitoring*. The Director of the Public Works Department and/or Stormwater personal, or their designee, may require the person responsible for any private property or premises, including, but not limited to, any private property or premises which is or may be the source of a stormwater discharge associated with industrial activity, or the source of a discharge from a site of industrial activity, or the source of a discharge from a high-risk facility, or the source of an illicit discharge, at that person's expense, to establish and maintain such records, make such reports, install, use and maintain such monitoring equipment or methods, sample such discharge in accordance with such methods, at such locations, and intervals as the director shall prescribe, and provide periodic reports relating to the discharge. To the extent practicable, the director/stormwater personal or designee shall recognize and approve the sampling procedures and test methods established by 40 CFR 136.

h. *Best management practices*. Industrial facilities and high risk facilities may be required to implement, at their own expense, structural and/or nonstructural BMPs, as appropriate, to prevent the discharge of pollutants to the Richland County MS4. To the extent practicable, the director shall recognize that storage and handling of significant materials, material handling equipment or activities, intermediate products or industrial machinery in such a manner that they are not exposed to stormwater is an effective BMP. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed in compliance with the provisions of this section.

i. *Violations*. Upon determination that a violation of any of the provisions of this article or the Storm Water Management Plan (SWMP) has occurred, the director may give timely actual notice at the property where the violation has occurred and shall give written notice to the violator. This notice shall specify: the nature of the violation, the proposed penalty, and the amount of time in which to correct deficiencies, if appropriate. It shall be sufficient notification to deliver the notice to the person to whom it is addressed, or to deposit a copy of such in the United States Mail, properly stamped, certified and addressed to the address used for tax purposes.

j. *Providing false information and tampering prohibited*.

1. It shall be unlawful for any person to provide false information to the director or anyone working under the director's supervision when such person knows or has reason to know that the information provided is false, whether such information is required by this article or any inspection, recordkeeping or monitoring requirement carried out or imposed under this article.

2. It shall be unlawful for any person to falsify, tamper with or knowingly render inaccurate any monitoring device or method required under this article.

(4) *Construction Site Runoff Control Program.* The intent of the Construction Site Runoff Control Program is to aid Richland County in reducing and controlling the discharge of pollutants from construction sites. Construction sites have potential to introduce large volumes of soil and sediment to stormwater runoff, as well as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste. The individual requirements that make up the Construction Site Runoff Control Program are contained in Sections 26-64 and 26-202 of this Chapter.

(5) *Post-Construction Maintenance Program*. The intent of the Post-Construction Maintenance Program is to aid Richland County in reducing the discharge of pollutants from permanent water quality BMPs that are left in place after construction is complete. If not operated and maintained properly, permanent water quality BMPs can become sources of pollutants; the goal of this program is to prevent this from occurring by requiring BMP maintenance to ensure these BMPs are operating as deisgned.

a. The individual requirements that make up the Post-Construction Maintenance Program are contained in Sections 26-64 and 26-202.

b. Regular maintenance of permanent structural BMPs (i.e., ditches, ponds, etc.) will be the responsibility of Richland County if the County has an easement allowing it to access the BMP, and if the County has accepted maintenance responsibilities for the BMP. If the BMP is privately owned, all maintenance will be the responsibility of the owner.

(6) *Accidental Discharges or Damages*. In the event of any accidental discharge or damage to the municipal separate stormwater systems of Richland County or its co-permittees, immediate notification (not to exceed 24 hours) shall be given to the Director of the Public Works Department and/or Stormwater Management personnel, or their designee, regarding the nature, quantity (if applicable) and time of the occurrence. In addition to this notification, the responsible entity shall take immediate measures to contain and/or eliminate the discharge and minimize its effects on the receiving waters. The responsible entity shall also take steps to eliminate the recurrence of such events. The Director of Public Works and Stormwater Management personnel, or their designee, shall have the authority to inspect, monitor and approve any remedial actions taken by the responsible entity. Failure to notify Richland County as outlined above shall result in the action being deemed an illegal or illicit activity as described in this Section and appropriate enforcement action shall be taken as set out in Section 26-203(d), below, and the "Enforcement Response Guide".

(7) *Water Quality Controls for Impaired Water Bodies and Consistency with Total Maximum Daily Loads (TMDLs).* The county may take action to provide reasonable assurance that discharges will not cause or contribute to violations of water quality standards in Impaired Water Bodies identified on the South Carolina 303(d) list. If a TMDL has been established for a water body, the County may also require additional conditions necessary to ensure consistency with the TMDL.

(c) *MS4 Authority*.

(1) The Director of the Public Works Department and/or Stormwater Management personnel, or designee, bearing proper credentials and identification, may enter and inspect all properties for regular inspections, periodic investigations, monitoring, observation, measurement, enforcement, sampling and testing, and any other NPDES related tasks. The personnel shall duly notify the owner of said property or the representative on site, and the inspection shall be conducted at reasonable times.

(2) In the event that the Richland County or the designee reasonably believes that discharges from the property into the Richland County MS4 may cause an imminent and substantial threat to human health or the environment, the inspection may take place at any time and without notice to the owner of the property or a representative on site. The inspector shall present proper credentials upon reasonable request by the owner or representative. In addition, the inspector may take such action as to abate or eliminate the discharge and begin remedial steps necessary to protect human health and/or the environment.

(d) *Violations*. Upon determination that a violation of any of the provisions of this article or the NPDES permit has occurred, Richland County personnel will respond according to the procedures in the current "Enforcement Response Guide", which includes timely personal notice at the property where the violation has occurred and written notice to the violator. This notice shall specify: the nature of the violation, the proposed penalty, and the time line (depending on the violation and is left to the discretion of the inspector) to correct deficiencies, if appropriate. There shall be sufficient notification to deliver the notice to the person to whom it is addressed, or to deposit a copy of such in the United States Mail, properly stamped, certified and addressed to the address used for tax purposes.

(1) *Civil Penalties*. Any person violating any provision of this article shall be subject to a civil penalty of not more than five hundred dollars ($500) for each violation. Each separate day of a violation, constitutes a new and separate violation.

(2) *Criminal Penalties*. In addition to any applicable civil penalties, any person who negligently, willfully or intentionally violates any provision of this article shall be guilty of a misdemeanor and shall be punished within the jurisdictional limits of magistrate's court. Each day of a violation shall constitute a new and separate offense.

(3) *Emergency Actions*. Richland County reserves the right to seek reimbursement of costs required to abate, eliminate and/or remediate discharges that have been deemed an imminent threat to human health and/or the environment. Such reimbursement shall be in addition to other appropriate enforcement actions including, but not limited to, civil or criminal penalties.

(e) *Supplemental regulations*. All applicable provisions of the standards for Stormwater Management and Sediment Reduction (Section 72-301, 302, 305, 307, 308, 312, 313, 314, 315 and 316) administered by the South Carolina Department of Health and Environmental Control pursuant to the South Carolina Stormwater Management and Sediment Reduction Act of 1991 are incorporated herein by reference. All applicable provisions of the NPDES and Land Application Permits Regulation (Section 61-9.122 Part A 122.2, 122.3, 122.4 and Part B 122.26) administered by the South Carolina Department of Health and Environmental Control pursuant to the South Carolina Pollution Control Act of 1976 are incorporated herein by reference.

Secs. 26-204 – 26-220. Reserved.

SECTION X. Severability. If any section, subsection, or clause of this ordinance shall be deemed to be unconstitutional or otherwise invalid, the validity of the remaining sections, subsections, and clauses shall not be affected thereby.

SECTION XI. Conflicting Ordinances Repealed. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

SECTION XII. Effective Date. This ordinance shall be enforced from and after _____, 2010.

RICHLAND COUNTY COUNCIL

BY:_____
_____, Chair

ATTEST THIS THE _____ DAY

OF_____, 2010

_____
Michielle R. Cannon-Finch
Clerk of Council

First Reading:	October 21, 2008
Public Hearing:	February 24, 2009
Second Reading:	February 24, 2009
Second Public Hearing:	January 19, 2010 (tentative)
Third Reading:	January 19, 2010 (tentative)

December 23, 2009