

**South Carolina Department of Health and Environmental Control
Bureau of Water
2600 Bull Street
Columbia, South Carolina 29201-1708**

Small Municipal Separate Storm Sewer Systems (SMS4) Notice of Intent (NOI) Template for authorization to discharge Storm Water from Regulated SMS4 under SC NPDES Phase II General Permit (SCR030000)

FOR OFFICE USE ONLY	
DATE RECEIVED	
DATE REVIEW COMPLETE	
REVIEWED BY	

PURPOSE

The purpose of the SMS4 Notice of Intent (NOI) is for an owner / operator of a Regulated Small Municipal Separate Storm Sewer System located partly, or wholly, in the State of South Carolina to seek authorization to discharge stormwater runoff under SC Phase II NPDES General Permit for Storm Water Discharges from Regulated Small Municipal Separate Storm Sewer Systems, SCR030000

INSTRUCTIONS

The following information must be provided to the Bureau of Water, Stormwater Permitting Section as application material. Application questions are intended to highlight the SWMP requirements under the SMS4 permit. Each element not currently performed must be implemented by the date required in the permit.

NOTE: The proposed stormwater quality management program should provide a forum and a structure by which to encourage, or to allow, the public to participate. There may be specific ways the public might be involved, based on a program's particular needs. For instance, you may want stream watch groups to be organized. As such, the proposed program should describe how this will be accomplished, and the time schedule. Each SWMP will be reviewed by the Department to ensure it is the functional equivalent of the permit under which the SMS4 is seeking coverage.

This application is divided into five Parts (I thru V) and seven subsequent Sections (1 thru 7). Each must be completed in their entirety. Attached at the end of this SMS4 NOI, there are three tables listed as addenda to sections 1 thru 6 to list BMP Measurable Goals and Implementation Milestones for each MCM. Complete each addendum, providing more details on the goals and milestones for each BMP outlined in this NOI as required in the permit and attach them to this NOI.

In Table 1, you must list by name and description the Best Management Practices (BMP) that will be implemented in each area (based on a set of priorities identified in the area). In Table 2, provide the administrative information to complete those identified BMP as explained below. In Table 3, provide more details on the goals and milestones for each BMP outlined in this NOI as required in the permit.

ADMINISTRATIVE INFORMATION	
Primary Contact and Position/Title	The person in your organization serving as the primary contact.
Other Department and Roles	Other departments within your organization involved in the project and how their role is identified.
Other Government Entity and Roles	Identification of other government entities responsible for implementing one or more of the BMP's. Include a copy of the interagency agreement, or contract, or proposed agreement with execution schedule.
Other Institutions and Roles	Identification of partnerships with another MS4 operator or institution (e.g., Chamber of Commerce, environmental interest organizations, civic groups) to achieve the BMP.
Equipment Needs (if applicable)	What are these needs?
Target Groups (if applicable)	Specific kinds of groups that will be targeted, such as service industries (i.e., carpet cleaning), civic groups, schools, and church groups, etc.

**PART 1
ADMINISTRATIVE INFORMATION**

Name of municipal entity / tribe / state agency / federal agency / or public institution that owns / operates a small MS4:

City of Clemson	SCR030000		
MS4	NPDES Small MS4 Permit Coverage Number		
Rick Cotton	City Administrator		
Responsible Elected Official or Officer	Title		
1250 Tiger Boulevard	Clemson	South Carolina	29631
Street Address	City	State	Zip Code

Indicate whether the SMS4 is a:

- Municipal Entity
- Tribe
- State Agency
- Federal Agency
- Other Public Institution: _____.

PROGRAM CONTACT

Kent Guthrie
Name
kguthrie@cityofclemson.org
Email Address
864-653-2071
Phone Number

TECHNICAL CONTACT

Nathan Hinkle
Name
nhinkle@cityofclemson.org
Email Address
864-624-1126
Phone Number

Additional information is listed in Appendix A.

- Attach an organizational chart that shows the different departments involved in stormwater management. (Appendix B)
- Indicate whether or not the SMS4 is relying on another entity to satisfy one or more of its permit obligations. If checked, the entities and the elements being implemented must be listed below. The agreement will be included in the Storm Water Management Plan after the Certificate of Coverage is received.

[Clemson University Extension Service – Pickens County Stormwater Partners – Pickens County Stormwater Partners for Public Education and Outreach and Public Involvement and Participation Minimum Control Measures.](#)

- Indicate whether or not the SMS4 is a co-permittee partnering with other SMS4 to develop and implement the SWMP. If checked, SMS4 may jointly submit an NOI with one or more SMS4 in it. Each SMS4 in the NOI must obtain authorization to discharge under SCR030000. The SWMP description must clearly indicate the joint permittees responsibility. Each and every element being implemented must be discussed in the written documentation pertinent to Section 2.4 attached to this SMS4 NOI.

**PART II
SMS4 INFORMATION**

**ITEM A
MS4 SYSTEM**

Urbanized Area (UA), or Core Municipality (if the SMS4 is not located in an UA) City of Clemson, Pickens County

Latitude and Longitude of the center of the SMS4 N 34° 41' 18.2976",
W -82° 49' 35.5044"

Jurisdiction in square miles within current corporate boundaries: 8

Area of additional urban growth boundary: 0

The permit will be used to regulate the: UA portions, as follows (Counties only):
 Entire Jurisdiction Unincorporated Area _____
 Unincorporated, Urbanized Area _____

Total Area: 8 square miles

**ITEM B
STORM DRAINAGE INFRASTRUCTURE**

Give figures for the following features of stormwater drainage infrastructure owned or operated by the local government. For a county government, indicate whether the figures represent the entire county or only the urbanized area. Figures for length and number of culverts and catch basins may be rough estimates.

Entire Jurisdiction	<u>Yes</u>	Urbanized Area(s)	_____	COUNTIES ONLY
Storm Sewers	<u>22.45 Miles (estimate)</u>	Open Ditches	<u>Unknown</u>	
Culverts	<u>1500 (estimate)</u>	Catch Basins	<u>1100 (estimate)</u>	
Retention and / or Detention Basins			<u>N/A at this time (estimate MS4 owned / operated number)</u>	

**ITEM C
MAP**

Appendix D identifies the SMS4 boundary area of the City of Clemson. The City of Clemson has no SMS4 area located on Indian Country lands.

**ITEM D
IDENTIFYING IMPAIRED STREAMS AND ALL SENSITIVE WATER BODIES**

Identify water bodies (located throughout the SMS4 jurisdiction or extending one mile beyond the SMS4 service boundaries SMS4 intended to be covered under the permit) listed in Part 3 of the permit. Impairments, indicating the nature of pollution (cause) and their sources should be listed below. Visit: <http://www.scdhec.gov/tmdl>

STREAM NAME	WQMS	Impairment(s)
Eighteen Mile Creek	SV-135	PH
Hartwell Lake	RL-07012	No Impairment, but source water protection area

ITEM E
HAS THE STATE OR EPA ISSUED A TMDL FOR ANY STREAMS LOCATED THROUGHOUT THE SMS4 JURISDICTION OR EXTENDING ONE MILE BEYOND THE SMS4 SERVICE BOUNDARY?

Yes No If yes, list stream, WQMS, and parameter(s) of concern, visit: <http://www.scdhec.gov/tmdl>:

STREAM	WQMS and PARAMETERS OF CONCERN
Eighteen Mile Creek	SV-135, SV-233 – Fecal Coliform

PART III
EXISTING LEGAL AUTHORITY TO CONTROL STORMWATER DISCHARGES TO MS4

Review ordinances applicable to the control of pollution that might enter the SMS4. Extract the portions of the ordinances that apply to the control of the storm sewer system and attach a copy of those portions to this NOI. Ordinances dealing with stormwater issues might be found, for example, in conjunction with litter control, prohibition of dumping, clean up of spills, grading/building permits, sewer connection ordinances, erosion and sediment practices, subdivision regulations or other land use/development ordinances. Ensure that all legal authority necessary to enable the SMS4 to carry out all provisions of the permit are obtained.

- The City of Clemson Ordinance can be found in Appendix C.
- Clemson, South Carolina Code of Ordinances
 - Chapter 5 Buildings, Construction, and Related Activities Article II Flood Damage Prevention
 - Chapter 9 Garbage, Trash, Weeds and Junk Article II Collection and Disposal
 - Chapter 11 Municipal Utilities Article II Sewer Use Divisions 2 and 4
 - Chapter 11 Municipal Utilities Article V Stormwater Management Ordinance

PART IV
PROPOSED STORMWATER MANAGEMENT PROGRAM

This NOI requires SMS4 seeking coverage to provide a description of existing and planned activities as well as Best Management Practices (BMP) for a SWMP. The following sections correspond to the six minimum control measures MCM to be included in the SWMP required in part 4.2 of the permit. If another MS4 will be responsible for implementing any or all portions of the six minimum control measures, attach the inter local agreement (ILA) and the proposed implementation schedule. The NOI must be completed by answering all pertinent questions for the six MCM. The City of Clemson has entered into a contract with the Pickens Counties Stormwater Partners to assist in completing MCM 1 and MCM 2. A copy of the acceptance letter has been attached in Appendix E.

PART V
SIGNATURE OF RESPONSIBLE CORPORATE OFFICER

This NOI must be signed as follows: For a municipality, state, federal, other public agency, and/or co-permittees by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes one of the following:

- i. The chief executive officer of the agency.
- ii. A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature	City Administrator / City of Clemson Title/MS4	Date
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SECTION 1
PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

1. Are (or will, within the first year of permit coverage,) the goals and objectives of the program based on at least three high priority, community-wide issues (e.g. reduction of the POC in discharges from the MS4, promoting pervious techniques used in the MS4) defined?

Yes The City of Clemson has identified with the help of the Pickens County Stormwater Partners three POC, Sediment/Erosion; Fats, Oil, and Grease (FOG) down the drains; Bacteria/Pet Waste; and Litter.
No
2. Are (or will, within the first year of permit coverage) the pollutant(s) of concern identified and the audience(s) targeted?

Yes With help of Pickens County Stormwater Partners the City of Clemson Will Identify target audiences and produce programs to reduce selected POC's.
No
3. Have (or will, during permit coverage,) appropriate message(s) based on targeted residential issues and on targeted industrial/commercial issues and / or from issues deemed more appropriate to the MS4 been created?

Yes The City of Clemson will create targeted message(s)/program(s) towards residential and commercial issues.
No
4. Have (or will, during permit coverage,) appropriate educational materials (e.g. the materials can utilize various media such as printed materials, billboard and mass transit advertisements, signage at select locations, radio advertisements, television advertisements, websites) been developed?

Yes The City of Clemson with partnership from the Pickens County Stormwater Partners has placed education materials throughout the City along with the region.
No
5. Is (or will during permit coverage) public input (e.g., the opportunity for public comment, or public meetings) being utilized in the development of the SWMP?

Yes The City of Clemson will obtain public input for the development of the SWMP.
No

SECTION 1		
TABLE 1: SELECTED BEST MANAGEMENT PRACTICES		
	Name	DESCRIPTION
A.	Quarterly Newsletter	The City of Clemson in conjunction with Pickens County Stormwater Partners will distribute a quarterly newsletter to inform citizens of the activities of stormwater utility and to educate property and business owners of potential sources of stormwater pollution to meet the public education and outreach minimum control measure.
B.	Municipal Outreach Program	The City of Clemson in conjunction with Pickens County Stormwater Partners will develop a Municipal Outreach Program to engage citizens engaged in industrial, commercial, or municipal activities to reduce stormwater pollution to the maximum extent practicable (MEP) in fulfillment of the public education minimum control measure.
C.	Public Education Program	The City of Clemson in conjunction with Pickens County Stormwater Partners will develop and implement a public education and outreach program to engage local school programs, which meets the requirements of the public education and outreach minimum control measure.

TABLE 2: ADMINISTRATIVE INFORMATION	
PRIMARY CONTACT	POSITION OR TITLE
Kent Guthrie	City Engineer
OTHER DEPARTMENT	ROLE
Water Utility	Distribute quarterly newsletters to utility customers.
GOVERNMENT ENTITY	ROLE
Pickens County Stormwater Partners – Clemson Extension	Provide Public Education program in public schools.
OTHER INSTITUTION	ROLE
GROUP	TARGET DESCRIPTION
Residents and Home Owners Associations	Residents and homeowners associations located within the Clemson city limits.
Business Owners and Operators	Business owners and operators who conduct business within the Clemson city limits.
Developers, Engineers and Construction Site Operators	Persons responsible for the development, design, and construction of projects within the Clemson city limits.
Schools	Local public school 3 rd grade classes whose students live primarily within the City of Clemson.
Municipal Staff and Contractors	Employees and contractors working for the City of Clemson.
Civic Groups	Active civic and community groups within the City of Clemson or Clemson University who are willing to volunteer for community involvement initiatives.
Stakeholders	A broad spectrum of community members including residents, business operators, environmental stewards, and government officials.
Recyclers	Citizens of the City of Clemson who participate in city sponsored recycling programs.

SECTION 1	
TABLE 3: BMP MEASUREABLE GOALS AND IMPLEMENTATION MILESTONES	
<p>The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures.</p> <p>Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.</p> <p>For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.</p>	
BMP A	MEASURABLE GOALS AND MILESTONES
Goals	Produce a quarterly newsletter and distribute with The Community Connection, the City of Clemson's quarterly newsletter.
Milestone Year 1	Complete the quarterly newsletter template and distribute the first quarterly stormwater utility newsletter.
Milestone Year 2-5	Distribute stormwater utility newsletters once per quarter.

BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Design and implement a program to meet the requirements of the Public Education Minimum Measure
Milestone Year 3	Develop municipal outreach program to target business and home owners.
Milestone Year 4	Implement municipal outreach program and distribute municipal outreach materials.
BMP C	MEASURABLE GOALS AND MILESTONES
Goals	Design and implement a program to meet the requirements of the Public Education Minimum Measure
Milestone Year 4	Develop public education program.
Milestone Year 5	Implement public education program.

**SECTION 2
PUBLIC INVOLVEMENT AND PUBLIC PARTICIPATION**

1. Have (or will, within the first year of permit coverage,) balanced citizen groups been established and invited to participate in the development and implementation of all parts of the community's SWMP?
- Yes The City of Clemson will establish a citizen groups to participate in the development of the SWMP.
No
2. Are (or will, during the permit term) opportunities created for citizens to participate in the implementation of stormwater controls (e.g., stream clean-ups, storm drain stenciling, volunteer monitoring, and educational activities)?
- Yes The City of Clemson in partnership with Pickens County Stormwater Partners will manage Citizen groups to implement stormwater controls.
No
3. Has the permittee (or will, during the permit term,) ensured that the public can easily find information about the SMS4 SWMP? If available in the web, provide link
- Yes The City of Clemson has developed a webpage which all information will be placed about the SMS4 and SWMP. <http://www.cityofclemson.org/utilities/stormwater>
No
4. Are (or will) written procedures for implementing the **Public Involvement / Participation** MCM incorporated into the SWMP?
- Yes The City of Clemson will write procedures for implementing the Public involvement/Participation MCM into the SWMP.
No

SECTION 2

TABLE 1: SELECTED BEST MANAGEMENT PRACTICES

	Name	DESCRIPTION
A.	Meet Public Notice Requirements for Stormwater Related Activities	The City of Clemson shall follow all public notice procedures as required by federal, state, and local laws on all stormwater related matters.
B.	Facilitate Stakeholder Meetings	The City of Clemson in conjunction with Pickens County Stormwater Partners will seek to create a committee of citizen stakeholders with an interest in stormwater related matters and facilitate regular meetings for public involvement of stormwater related matters.
C.	Create Adopt-a-Storm Drain / Storm Drain Marking Program	The City of Clemson in conjunction with Pickens County Stormwater Partners will establish a storm drain marking program to involve citizens in the marking of storm drains with approved message for all new and existing storm drains located within the city limits.
D.	Create Adopt-a-Stream Program	The City of Clemson in conjunction with Pickens County Stormwater Partners will seek to establish an Adopt-a-Stream program to engage citizens in stream cleanup activities of streams located within the City of Clemson that drain to Waters of the State.

TABLE 2: ADMINISTRATIVE INFORMATION

PRIMARY CONTACT	POSITION OR TITLE
Kent Guthrie	City Engineer
OTHER DEPARTMENT	ROLE
Administration / Planning	Public Notice advertisements for stormwater related activities.
City Council	Approve all stormwater related activities and capital projects.
GOVERNMENT ENTITY	ROLE

Pickens County Stormwater Partners – Clemson Extension	Public Involvement Programs
SCDOT	Adopt-a-Highway
OTHER INSTITUTION	ROLE
Upstate Forever	Schedule and facilitate community stakeholder meetings.
GROUP	TARGET DESCRIPTION
Residents and Home Owners Associations	Residents and homeowners associations located within the Clemson city limits.
Business Owners and Operators	Business owners and operators who conduct business within the Clemson city limits.
Developers, Engineers and Construction Site Operators	Persons responsible for the development, design, and construction of projects within the Clemson city limits.
Civic Groups	Active civic and community groups within the City of Clemson or Clemson University who are willing to volunteer for community involvement initiatives.
Stakeholders	A broad spectrum of community members including residents, business operators, environmental stewards, and government officials.

SECTION 2

TABLE 3: BMP MEASUREABLE GOALS AND IMPLEMENTATION MILESTONES

The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures.

Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.

For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.

BMP A	MEASURABLE GOALS AND MILESTONES
Goals	Meet federal, state, and local public notice requirements as applicable
Milestone Year 1-5	Follow public notice procedures as required by federal, state, and local laws on stormwater related matters.
BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Community stakeholder group established and meets regularly to discuss stormwater issues within the community
Milestone Year 1	Identify community stakeholder groups.
Milestone Year 1	Determine how to involve stakeholders.
Milestone Year 2	Organize and facilitate a quarterly stakeholder meeting.
BMP C	MEASURABLE GOALS AND MILESTONES
Goals	Map and mark storm drains within the city limits
Milestone Year 2	Map storm drains within city limits.
Milestone Year 2	Create marking kits for citizens to assist with storm drain marking program.

Milestone Year 2	Advertise storm drain marking program to community.
Milestone Year 2	Recruit and coordinate volunteer groups to assist with storm drain marking.
Milestone Year 3	Recognize contributions of volunteers in quarterly newsletters.
BMP D	MEASURABLE GOALS AND MILESTONES
Goals	Adopt and clean streams within the watershed semi-annually
Milestone Year 4	Establish potential stream cleanup sites.
Milestone Year 4	Solicit stream adoptions from various civic groups and organizations.
Milestone Year 5	Collect reports that streams have been cleaned.

SECTION 3
ILLCIT DISCHARGE DETECTION AND ELIMINATION

The following are common sources of illicit discharges to an MS4:

- Sanitary Wastewater
- Car wash wastewaters
- Radiator flushing disposal
- Spills from roadway accidents
- Carpet cleaning wastewaters
- Effluent from septic tanks
- Improper oil disposal
- Laundry Wastewaters/gray water
- Improper disposal of auto and household toxics

STORM SEWER SYSTEM MAP

Does the MS4 currently have a storm sewer system map completed for the entire regulated municipal separate storm sewer system? The map must depict, at a minimum: city streets, topography or drainage patterns, streams, and outfalls (points where the city or county-operated MS4 discharges into the streams or adjacent MS4s).

Yes

No If no, explain:

The City of Clemson is currently developing a stormwater system map with the locations of all outfalls, storm sewer system components, and municipal and industrial sites. The complete storm sewer system map will be complete by the expiration of this permit.

PRIORITY AREAS, FIELD SCREENING, TRACING AND ELIMINATION OF ILLICIT DISCHARGES

Has (or will, within the first year of permit coverage,) the MS4 identified priority areas documenting its basis for the selection?

Yes

No If no, explain

The City of Clemson will identify priority areas documenting the basis for the selection.

Does the MS4 currently have (or will have) written field screening and analytical protocol to detect and eliminate illicit discharges to the MS4 within one year from the effective date of coverage?

Yes

No If no, explain

The City of Clemson will have written field screening and analytical protocol to detect and eliminate illicit discharges.

Does the MS4 currently have procedures for tracing the source of an illicit discharge?

Yes

No If no, explain

The City of Clemson does not currently have procedures in place for detecting the sources of illicit discharges, but will prepare procedures for detection and tracing of illicit discharges in compliance with this permit according to the guidance provided by the EPA in the Illicit Discharge Detection and Elimination Guidance Manual as part of the field screening and analytical protocols to be completed within one year from the effective date of coverage.

INSPECTION/SCREENING AND ENFORCEMENT PROCEDURES

1. Does the MS4 presently have personnel and procedures in place for inspection and/or screening for non-stormwater discharges? If yes, please describe and indicated percentage of system inspected and/or screened.

Yes

No

2. Does the MS4 presently have procedures and personnel in place for enforcement of violations of the illicit discharge ordinance? If yes, please describe.

Yes
No

3. How are enforcement actions documented?

Enforcement actions for illicit discharges are not currently documented. This will be included in the Stormwater Management Plan (SWMP) once coverage is obtained.

4. Has the MS4 defined "hot spots" for non-stormwater discharge screening and inspections? If yes, please describe and provide a map of illicit discharge screening priority areas.

Yes No

PUBLIC INPUT AND COMPLAINTS

1. Does the MS4 presently have procedures in place to receive and consider information and complaints about non-stormwater discharges that are submitted by the public? If so, provide brief description: responsible departments, personnel, steps followed.

Yes
No

The City of Clemson receives telephone calls and maintains an email link on the City of Clemson homepage for the receipt of citizen requests and complaints related to stormwater issues, sewer backups and discharges, and illegal disposal of various materials. Issues are addressed with necessary inspections and enforcement actions by the Utilities Director and the City Engineer.

EDUCATION

1. Has the MS4 educated the public and businesses including, but not limited to, auto parts supply, auto repair shop and restaurants, regarding ways to detect, prevent and eliminate illicit discharges? If yes, briefly describe the educational materials, including media used (e.g., written brochures, public service announcements, etc.), the topic(s) covered, intended target audience(s), and the distribution method.

Yes
No

ILLCIT DISCHARGE ORDINANCES

1. Does the MS4 currently have an ordinance or regulatory mechanism that prohibits non-stormwater discharges into the storm sewer system? If yes, please attach a copy of the ordinance and give page number(s) of this section of ordinance. If No, proceed to the next section (inspections and enforcement).

Yes No Chapter 11 Municipal Utilities Article V Stormwater Management Ordinance Division 4 Illicit Discharges, §11-191 Illicit connections and illicit discharges Ordinance Section Number

2. Does the ordinance or regulatory mechanism clearly define non-stormwater discharges, either through a written description of a non-stormwater discharge or through a listing of unallowable or allowable non-stormwater discharges?

Yes No If no, explain

A listing of allowable and unallowable non-stormwater discharges will be provided either through amendment or adoption of an Illicit Discharge Detection and Elimination ordinance.

3. Does the ordinance or regulatory mechanism allow right-of-entry on private property for inspection of suspected discharges?

Yes [Sec. 11-55 Right of entry](#) No If no, explain

4. Does the ordinance or regulatory mechanism prohibit dumping?

Yes No If no, explain

[Dumping is prohibited by Chapter 9 Garbage, Trash, Weeds and Junk Article II Collection and Disposal Section 9-32 Prohibited activities.](#)

5. Does the ordinance or regulatory mechanism give the MS4 owner/operator the authority to eliminate non-stormwater discharges in the event of violations? If yes, please note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V Stormwater Management Ordinance Division 4 Illicit Discharges, §11-194 Notification of Spills Paragraph Number

6. What is maximum penalty in ordinance or regulatory? Please note maximum penalty, page number and paragraph number.

Yes No _____ Max. Penalty \$500 Paragraph Number

[Located in Chapter 11 Municipal Utilities Article V Stormwater Management Ordinance Division 8 Enforcement, Waivers, Variances, Appeals, Penalties, and Fees, §11-249 Penalties. Page #CXI](#)

7. Does the MS4 have ordinance or other regulatory mechanism that prohibits contamination of stormwater runoff from "hot spots" including industrial and commercial properties, restaurants, auto repair shops, auto supply shops, and large commercial parking areas?

Yes No If no, explain

[The City of Clemson does not have Chapter 11 Municipal Utilities Article V Stormwater Management Ordinance Division 4 Illicit Discharges, §11-191 Illicit connections and illicit discharges](#)

SECTION 3		
TABLE 1: SELECTED BEST MANAGEMENT PRACTICES		
	Name	DESCRIPTION
A.	Develop Illicit Discharge Ordinance	Create and pass an Illicit Discharge Ordinance for the City of Clemson that prohibits non-stormwater discharges to the MS4, clearly defines allowable and unallowable non-stormwater discharges, allows right-of-entry for inspection of suspected illicit discharges, prohibits dumping, and provided means of enforcement of penalties and elimination of illicit discharge sources.
B.	Educate Citizens Regarding Illicit Discharge Detection and Elimination	Educate citizens of the City of Clemson affected by the Illicit Discharge Ordinance regarding potential illicit discharge sources, environmental impacts of illicit discharges, means to eliminate illicit discharges, and means of reporting suspected illicit discharges to the city.
C.	Create a Complete Storm Sewer Outfall Map	Produce a map of the City of Clemson MS4 storm sewer system, including the locations of all stormwater related outfalls, stormwater detention and retention ponds, and industrial and municipal operations sites.
D.	Create an Illicit Discharge Non-Compliance Reporting Mechanism	Create a means for citizens to report potential illicit discharge sources including, but not limited to an email site, or telephone hotline.
E.	Screen, Track, and Eliminate Illicit Discharges	Perform routine dry weather screenings of stormwater outfalls and storm sewer system to identify potential illicit discharges from the MS4, track sources of potential illicit discharges, and mandate and enforce corrective actions to eliminate illicit discharges.

F.	Recycling Program for Hazardous Waste	Provide continued support of sanitation department recycling program for recycling of used motor oil and other hazardous waste.
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TABLE 2: ADMINISTRATIVE INFORMATION

PRIMARY CONTACT	POSITION OR TITLE
Kent Guthrie	City Engineer
OTHER DEPARTMENT	ROLE
Planning and Codes	Enforce illicit discharge ordinance and respond to non-compliance reports.
Public Works	Perform dry weather screenings to track and eliminate illicit discharges and maintain MS4 system.
Sanitation	Manage and operate curbside recycling program.

EQUIPMENT NEEDS (IF APPLICABLE)

Miscellaneous inventory supplies and PPE
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GROUP	TARGET DESCRIPTION
Residents and Home Owners Associations	Residents and homeowners associations located within the Clemson city limits.
Business Owners and Operators	Business owners and operators who conduct business within the Clemson city limits.
Developers, Engineers and Construction Site Operators	Persons responsible for the development, design, and construction of projects within the Clemson city limits.
Recyclers	Citizens of the City of Clemson who participate in city sponsored recycling programs.

SECTION 3

TABLE 3: BMP MEASUREABLE GOALS AND IMPLEMENTATION MILESTONES

The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures. Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.

For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.

BMP A	MEASURABLE GOALS AND MILESTONES
Goals	Implement illicit discharge detection and elimination ordinance.
Milestone Year 1	Prepare draft illicit discharge and elimination ordinance (including sections on spills and illegal dumping).
Milestone Year 1	Submit draft ordinance to City Council for review and approval.
Milestone Year 2	Implement illicit discharge detection and elimination ordinance.

BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Distribute notice of illicit discharge detection and elimination to community.
Milestone Year 2	Assess illicit discharge potential in the City of Clemson.
Milestone Year 3	Develop education materials to target illicit discharges with the highest potential.
Milestone Year 4	Distribute educational materials to community.
BMP C	MEASURABLE GOALS AND MILESTONES
Goals	Complete mapping of major outfalls within the Clemson city limits.
Complete	Delineate watersheds.
Milestone Year 1	Develop field processes and procedures for inventory, screening and tracking.
Milestone Year 2	Map major outfalls in Lower Eighteen Mile Creek watershed. (Approximately 4.4 sq. mi.)
Milestone Year 3	Map major outfalls in Lower Twelve Mile Creek watershed. (Approximately 1.6 sq. mi.)
Milestone Year 4	Map major outfalls in Upper Seneca River watershed. (Approximately 2 sq. mi.)
BMP D	MEASURABLE GOALS AND MILESTONES
Goals	Establish mechanism for receiving information and respond to calls within 72 hours.
Complete	Establish a mechanism for the public to submit information regarding water quality violations.
Milestone Year 2	Publicize the phone number, website, etc.
Milestone Year 2	Receive and respond to complaints, messages, etc.
BMP E	MEASURABLE GOALS AND MILESTONES
Goals	Eliminate or bring full enforcement action on all illicit discharge activities identified in the dry weather screening process.
Milestone Year 2	Dry weather screen major outfalls in Lower Eighteen Mile Creek watershed. (Approximately 4.4 sq. mi.)
Milestone Year 3	Track and eliminate illicit discharges discovered in first dry weather screening.
Milestone Year 3	Dry weather screen major outfalls in Lower Twelve Mile Creek watershed. (Approximately 1.6 sq. mi.)
Milestone Year 4	Track and eliminate illicit discharges discovered in second dry weather screening.
Milestone Year 4	Dry weather screen major outfalls in Upper Seneca River watershed. (Approximately 2 sq. mi.)
Milestone Year 5	Track and eliminate illicit discharges discovered in third dry weather screening.
BMP F	MEASURABLE GOALS AND MILESTONES
Goals	Maintain support of curbside recycling program and recycling centers.
Complete	Inform community of curbside recycling program and recycling center location and services.

SECTION 4
CONSTRUCTION SITE RUNOFF PROGRAM
CONSTRUCTION SITE RUNOFF ORDINANCES

1. Do the current ordinances/regulations for the municipal stormwater management program comply with Local, State and Federal public notice requirements? If yes, describe how the public is notified.

Yes

All projects which require public notice for approval including requests for re-zoning, variances, special exceptions, or subdivision of property are advertised with an advertisement in the local newspaper, posting of signs at the property, and posting on bulletin boards at City Hall fifteen (15) days prior to the scheduled public hearing.

No

2. Do you currently have an erosion prevention and sediment control - or similar - ordinance or regulatory mechanism? If yes, include a copy and reference the page number(s). If No, proceed to the next set of questions below about construction site plans review.

Yes

No

Chapter 11 Municipal Utilities Article V Stormwater Management Ordinance Division 5 Stormwater Management and sediment control design plan requirements, Page CVII

3. Does the ordinance or regulatory mechanism require that site operators implement erosion prevention, sediment control, soil stabilization practices and other controls for land disturbance activities?

Yes

No If no, explain

4. Does the ordinance/regulatory mechanism require (explicitly or implicitly) that controls be implemented for any land disturbances greater than or equal to one acre, or less than one acre if part of a large common plan of development or sale that would disturb one acre or more? If yes, note the page number and paragraph number where this is defined.

Yes

No

Chapter 11 Municipal Utilities Article V, Division 5, §11-202 Permits and Stormwater Management and sediment control plans, Page CVII Paragraph Number

5. Does the ordinance or regulatory mechanism contain or reference technical standards for erosion and sediment control? If yes, note the page number and paragraph number where this is defined.

Yes

No

Chapter 11 Municipal Utilities Article V, Division 5, §11-203 Permits and Stormwater Management and sediment control plans, Page CVII Paragraph Number

6. Do those technical standards meet with or exceed the current SC DHEC construction general permit sections 3.5 and 4.4?

Yes

No

7. Do technical standards require that construction activities maintain temporary water quality buffers during construction?

Yes

No

8. Does the ordinance or regulatory mechanism clearly define the criteria – primarily who must submit – for submitting erosion and sediment control information or plans? If yes, note page number and paragraph number

Yes

No

Chapter 11 Municipal Utilities Article V, Division 5, §11-203 Permits and Stormwater Management and sediment control plans, Page CVII Paragraph Number

9. Does the ordinance or regulatory mechanism require approval by the local government prior to commencement of land disturbance activities? If yes, note page number and paragraph number.

Yes

No

Chapter 11 Municipal Utilities Article V, Division 5, §11-202 Permits and Stormwater Management and sediment control plans, Page CVII Paragraph Number

10. Does the ordinance or regulatory mechanism require re-submittal of erosion and sediment control information or plans if site plans or conditions change during land disturbance activities? If yes, note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 5, §11-203 Permits and Stormwater Management and sediment control plans, Page CVII Paragraph Number

11. Does the ordinance or regulatory mechanism allow right-of-entry for government officials onto construction sites for inspections? If yes, note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 7, §11-233, Page CIX Paragraph Number

12. Does the ordinance or regulatory mechanism give the MS4 owner/operator the authority to STOP WORK in the event of non-compliance violations? If yes, note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 3 Organization and Coordination, Page CII Paragraph Number

13. Does the ordinance or regulatory mechanism give the MS4 owner/operator the authority to effectively prohibit the discharge of pollutants in wash waters, from washouts, in stormwater runoff and from leaks and spills? If yes, note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 4, §11-193, Page CV Paragraph Number

CONSTRUCTION SITE PLANS REVIEW

1. Does the MS4 presently have in place a technical review process with approval conditioned to meeting all requirements contained in parts 4.2.4 & 5 of the permit (i.e. engineering department, planning department, zoning board) that evaluates new development and redevelopment construction for construction site runoff?

Yes No If no, explain

2. Does the technical review process require an erosion prevention and sediment control plan to protect water quality with appropriate BMP rationale?

Yes No If no, explain

3. Does the review process include a requirement for pre-construction meeting between the MS4 and site developer, for priority construction sites, including at a minimum those construction activities discharging directly into, or immediately upstream of, waters the state recognizes as impaired or high quality?

Yes No If no, explain

The City of Clemson currently requires pre-construction meetings for commercial projects and land subdivisions, but it does not currently require pre-construction meetings for single lot residential construction or specify pre-construction meetings at sites upstream of impaired or high quality waters of the state.

4. If there is a review process, provide a brief narrative or a flow chart of the process, describing the process steps, responsible personnel qualifications (by department, title and contact person), and criteria used for evaluation of information or plans that are submitted.

Yes No If no, explain

Contact Person: Beth Connor, Office Manager, (864) 653-3050

Organization Chart:

The following organization chart list the various individuals involved in the City of Clemson typical plan review process. The Zoning and Codes Administrator is the point of contact between city staff and individuals desiring to obtain a grading and construction permit within the Clemson City Limits.

The Zoning and Codes Administrator distributes plans to the individuals listed for review and comment.

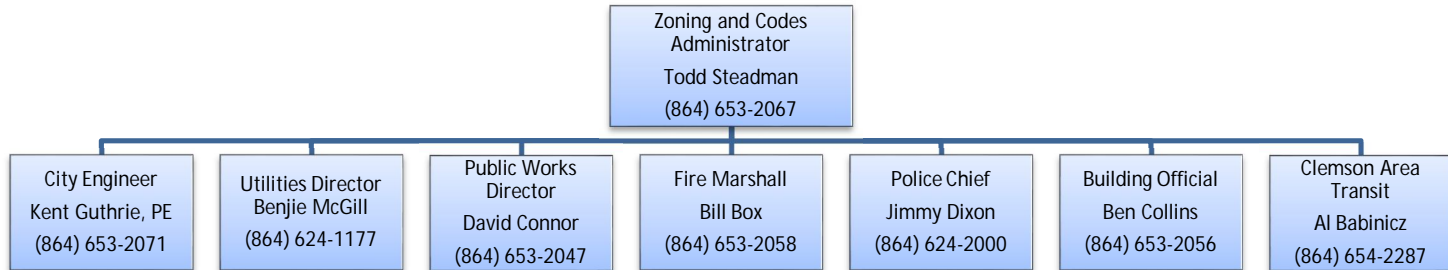


Figure 1: Plan Review Organizational Chart

Process Flow Chart:

The plan review process is outlined in the flow chart on the following page. The review, comment, and revision phases of construction plans are iterated until all necessary revisions and approvals are completed. Once plans are approved by each of the plan reviewers the grading and construction permits are issued by the Planning and Codes Department.

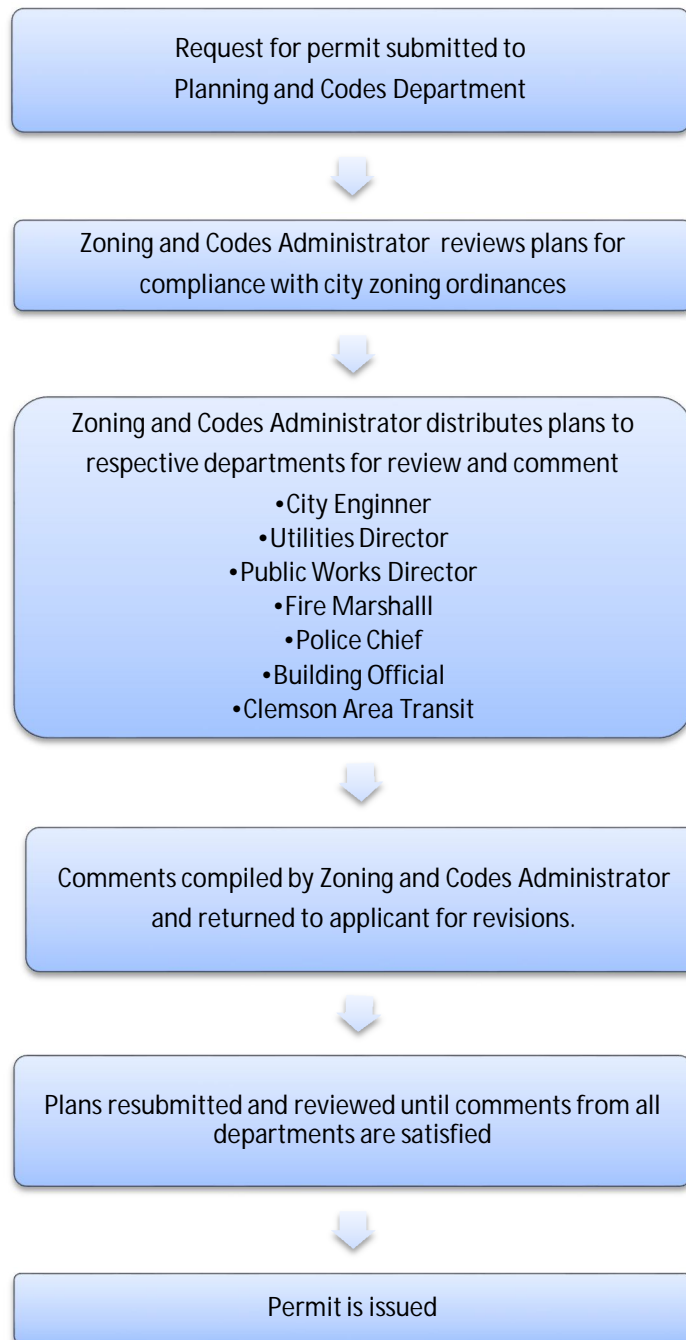


Figure 2: Plan Review Process Flow Chart

Criteria for Evaluation of Proposed Plans:

Construction plans are evaluated to ensure that they comply with all relevant City of Clemson Codes and Ordinances including the Land Development Ordinance and the Stormwater Management Ordinance, International Building and Fire Codes, SCDHEC Regulation 72-300 and other local, state, and federal requirements to maintain the health and life safety of occupants and the community.

RESPONDING TO PUBLIC INPUT AND COMPLAINTS

1. Does the MS4 presently have procedures in place for receipt and consideration of information and complaints submitted by the public?

Yes

No

If yes, please provide a brief narrative of the receipt process and procedures, describing process steps, responsible departments, and personnel (by title). If available, provide information on complaint tracking, documentation, etc.:

Public input and complaints of construction activities are received by the planning and codes office and are addressed on an as needed basis by Kent Guthrie, City Engineer and Ben Collins, Building Official. Inspections are conducted as deemed appropriate and stop work orders are issued if contractors fail to meet the specifications and requirements of permitted construction activities. Stop work orders are also issued in cases where a permit for a construction activity is required, but has not been attained. Citizen requests for services can also be made by email through the City of Clemson homepage with email links to appropriate departments. Descriptions of common issues are provided with email links to appropriate departments (i.e. Public Works – Catch Basin and Storm Drain Repair).

ENFORCEMENT AND INSPECTION PROCEDURES

1. Does the MS4 presently have personnel and procedures in place for construction site runoff inspection?

Yes

No If no, explain

Currently, periodic inspections of construction related issues are handled on an as needed basis by the City Engineer and Certified Engineering Department Staff. The City of Clemson currently has three (3) Certified Erosion Prevention and Sediment Control Inspectors, and two (2) Certified Stormwater Plan Reviewer.

2. Does the program provide for monthly inspection of priority sites?

Yes

No If no, explain

Currently, inspections are only conducted on an as needed basis.

3. Does the MS4 presently have procedures and personnel in place for enforcement to the maximum extent for violations of construction site requirements?

Yes

No If no, explain

4. Does the MS4 use a STOP WORK order to enforce non-compliance with construction site policies and requirements?

Yes

No If no, explain

5. How are enforcement actions documented?

Sec. 11-242 – Enforcement

In the event a violation constitutes an immediate danger to public health or public safety, city personnel are authorized to enter upon the subject private property, without giving prior notice, to take any and all measures necessary to abate the violation and/or restore the property. The city shall be entitled to compensation for any expenses involved in abating the violation and/or restoring the property. The city shall have to option of performing the work and placing a lien on the property for recovery of such documented expenses.

Whenever city personnel finds that a person has violated a prohibition or failed to meet a requirement of this article, the City Engineer may order compliance by written notice of violation to the responsible person.

The City shall develop an Enforcement Response Plan (ERP) within one year from the effective date of the City's written certificate of coverage for SCR030000 from SCDHEC.. The ERP shall define the City's response to violations and address repeat and continuing violations through progressively stricter responses as needed to achieve compliance.

TRAINING AND EDUCATION

1. Does the MS4 presently make construction site runoff control training/information available to the public, developers, engineers, and contractors? (Clemson University periodically provides training through its Certified Erosion Prevention & Sediment Control Inspection (CEPSCI) course. Local governments are encouraged to refer developers and contractors to these classes.)

Yes

No If no, explain

The City of Clemson currently provides a courtesy review of Sediment and Erosion Control plans before developers submit plans to DHEC for permitting.

2. Has MS4 staff completed state approved training, such as the Clemson CEPSCI program? Enter the number either way.

Yes If yes, how many? 3 CEPSCI, 2 CSPR

No

SECTION 4

TABLE 1: SELECTED BEST MANAGEMENT PRACTICES

	Name	DESCRIPTION
A.	Local Ordinances for Construction Site Runoff Control	Revise current stormwater management ordinance to require contractors to implement appropriate BMPs for Erosion and Sediment Controls and Soil Stabilization Practices, to require the design, implementation, and maintenance of effective pollution prevention measures, and to require contractors to prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) prior to land disturbing activities.
B.	Training and Certification Program for Contractors and Designers	Provide annual training to local Contractors and Designers of City of Clemson construction permitting requirements, use of specific BMPs for erosion and sediment control and soil stabilization practices, pollution prevention measure, SWPPPs, and regulatory inspection and enforcement procedures.
C.	Municipal Construction Site Inspection Program and Enforcement Response Plan (ERP)	Maintain an inventory of all construction projects within the MS4 boundary and develop and implement a stormwater construction inspection program to provide training, inspection procedures, documentation, and enforcement protocols to complete the required frequency of inspections for all active construction sites.
D.	Construction Phase Plan Review	Develop procedures and train MS4 staff to provide construction phase plan review of erosion prevention, sediment control, and pollution prevention measures for developers of all projects within the MS4 boundary.
E.	Construction Non-compliance Reporting Mechanism	Receive citizen reports of potential non-compliant construction activities via an email site or telephone hotline.

TABLE 2: ADMINISTRATIVE INFORMATION

PRIMARY CONTACT	POSITION OR TITLE
Kent Guthrie	City Engineer
OTHER DEPARTMENT	ROLE
Planning and Codes	Enforce development standards and perform stormwater construction inspections. Respond to non-compliance reports.
GOVERNMENT ENTITY	ROLE
Clemson University	Provide Certified Erosion Prevention and Sediment Control Inspector Certification (CEPSCI) and Certified Stormwater Plan Reviewer training.
EQUIPMENT NEEDS (IF APPLICABLE)	
GROUP	TARGET DESCRIPTION
Developers, Engineers and Construction Site Operators	Persons responsible for the development, design, and construction of projects within the Clemson city limits.

SECTION 4

TABLE 3: BMP MEASUREABLE GOALS AND IMPLEMENTATION MILESTONES

The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures.

Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.

For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.

BMP A	MEASURABLE GOALS AND MILESTONES
Goals	Amend current stormwater ordinances to establish adequate legal authority to enforce NPDES General Permit for Storm Water Discharge from Construction Activities requirements
Milestone Year 1	Provide public notice of requirements to amend current stormwater ordinance to satisfy the requirements of the NPDES General Permit for Small MS4s.
Milestone Year 1	Revise current stormwater management ordinance to require contractors to implement appropriate BMPs for Erosion and Sediment Controls and Soil Stabilization Practices, to require the design, implementation, and maintenance of effective pollution prevention measures, and to require contractors to prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) prior to land disturbing activities.
Milestone Year 2	Implement requirements for Construction Site Storm Water Runoff Control.
BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Train and certify local contractors and designers to comply with City of Clemson MS4 permit and construction permit requirements.
Milestone Year 1	Inform contractors and designers of changes to current City of Clemson stormwater requirements, inspection, and enforcement procedures.
Milestone Year 2	Host training session regarding proper control measure selection, installation, implementation, and maintenance of BMPs for erosion prevention, sediment control, and pollution prevention and creation of site specific SWPPPs.
Milestone Year 3-5	Host refresher training and new certification for contractors with feedback and lessons learned from previous years.
BMP C	MEASURABLE GOALS AND MILESTONES
Goals	Stormwater construction inspections performed and enforcement procedures implemented for all construction sites within the City of Clemson as prescribed in the SWMP and Emergency Response Plan (ERP).
Milestone Year 1	Create inventory of all public and private construction sites within the City of Clemson.
Milestone Year 1	Initial training of Erosion and Sediment Control / Stormwater Inspectors regarding proper control measure selection, installation, implementation, maintenance, and administrative requirements including reporting / tracking and enforcement responses.
Milestone Year 2	Inspect construction sites within the City of Clemson for proper use, installation, and maintenance of BMPs and compliance with SWPPPs.
Milestone Year 2-5	Provide refresher training to Erosion and Sediment Control / Stormwater Inspectors regarding proper control measure selection, installation, implementation, maintenance, and administrative requirements including reporting / tracking and enforcement responses.

BMP D	MEASURABLE GOALS AND MILESTONES
Goals	Stormwater plan review conducted by qualified and trained staff for all new development and redevelopment projects within the City of Clemson for erosion control, pollution prevention, and permanent water quality measures.
Milestone Year 2	Initial training of plan reviewers regarding control measure selection, design standards, and review procedures.
Milestone Year 2	Provide stormwater plan review for all new development projects and redevelopment projects.
Milestone Year 3-5	Provide refresher training to City of Clemson staff on stormwater plan review.
BMP E	MEASURABLE GOALS AND MILESTONES
Goals	Receive and document public comments and concerns and respond to cases within 72 hours.
Complete	Establish a mechanism for the public to submit information regarding stormwater quality violations.
Milestone - Annually	Publicize the phone number, website, etc.
Milestone - Continuous	Receive and respond to complaints, messages, etc. within 72 hours of notification.

SECTION 5
POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT OR
PERMANENT / LONG TERM STORM WATER POLLUTION CONTROL MEASURES
POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

1. Will the Post-Construction Stormwater Management Program require that controls are in place to meet the site performance standards in Part 4.2.5.2 to the MEP and to protect water quality?

Yes No If no, explain

2. Does the MS4 currently have in place mechanisms or strategies to address permanent stormwater runoff management from new development or redevelopment projects that result in land disturbance of one acre or more? For example, land use planning requirements, zoning directives, site-based local controls such as riparian buffer zone protection; storage or detention of stormwater prior to release to streams; practices to cause stormwater to percolate the soil rather than runoff immediately; vegetative practices.

Yes No

If Yes, please provide a brief narrative of - and/or references to - the structural and non-structural strategies, describing strategies implemented, Best Management Practices allowed, technical guidance, responsible departments, and personnel (by title).

SITE PERFORMANCE STANDARDS

1. Has the permittee established, implemented and enforced a requirement that owners or operators of new development and redeveloped sites discharging to the MS4, which disturb greater than or equal to one acre (including projects that disturb less than one acre that are part of a larger common plan of development or sale), design, install, implement, and maintain stormwater control measures that maintain pre-development conditions and protect water quality to the MEP?

Yes No _____ Paragraph Number

PERMANENT STORMWATER CONTROLS SITE MANAGEMENT ORDINANCE

1. Do you currently have an ordinance or regulatory mechanism that addresses permanent stormwater runoff management from new development and redevelopment projects? If yes, reference the page number in your ordinance. If No, proceed to the next section on permanent stormwater management plans review.

Yes No Chapter 11 Municipal Utilities Article V, Division 5, §11-203 , Page CVII Paragraph Number

2. Does the ordinance or regulatory mechanism require controls to mitigate pollutants in stormwater runoff? If yes, note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 7, §11-234 , Page CIX Paragraph Number

3. Does the ordinance or regulatory mechanism require (explicitly or implicitly) that controls be implemented for any new development or redevelopment projects greater than or equal to one acre, including projects less than one acre that are part of a large common plan of development or sale, that discharge into your small MS4? If yes, note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 5, §11-202 , Page CVII Paragraph Number

4. Does the ordinance or regulatory mechanism contain or reference technical standards for water quality controls (e.g., design of detention basins)? If yes, note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 5, §11-203 , Page CVII Paragraph Number

5. Does the ordinance or regulatory mechanism clearly define the criteria for submittal -who must submit - of permanent stormwater management design information or plans? If yes, note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 5, §11-203 , Page CVII Paragraph Number

6. Does the ordinance or regulatory mechanism require approval prior to construction of permanent stormwater management controls? If yes, note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 5, §11-202 , Page CVII Paragraph Number

7. Does the ordinance or regulatory mechanism require re-submittal of permanent stormwater management design information or plans if site plans change after the initial design has been approved? If yes, please note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 5, §11-203 , Page CVII Paragraph Number

8. Does the ordinance or regulatory mechanism give the MS4 owner/operator the authority to penalize the owner of permanent stormwater management controls for violations? If yes, note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 6, §11-212 , Page CIX Paragraph Number

9. Does the ordinance or regulatory mechanism allow the MS4 right-of-entry on property where permanent stormwater management controls are installed for inspections? If yes, please note page number and paragraph number.

Yes No Chapter 11 Municipal Utilities Article V, Division 7, §11-234 , Page CIX Paragraph Number

10. Does the ordinance or regulatory mechanism require that permanent stormwater management controls have adequate and long-term operation and maintenance? If yes, please note page number and paragraph number. If no, how does the MS4 owner/operator maintain permanent stormwater management controls?

Yes
No Chapter 11 Municipal Utilities Article V, Division 6, §11-212 , Page CIX

11. Does the ordinance or regulatory mechanism require establishment and maintenance of water quality buffers in areas of new development and redevelopment?

Yes No If no, explain

The current ordinance does not include a requirement for the establishment of water quality buffers in areas of new development or redevelopment.

PERMANENT STORMWATER MANAGEMENT PLANS REVIEW

1. Does the MS4 presently have in place a technical review process (i.e. engineering department, planning department, zoning board) that evaluates new development and redevelopment with regard to the impact that permanent stormwater runoff will have on receiving streams? Plan review must specifically address site performance standards and ensure long term maintenance.

Yes

No

If Yes, provide a brief narrative or a flow chart of the review process, describing the process steps, responsible personnel (by department, title and contact person), and criteria used for evaluation of information or plans that are submitted.

2. Does the MS4 presently have in place a requirement for submittal of 'as-built' certifications at project completion to ensure that site performance standards and long term maintenance requirements are met?.

Yes

No If no, explain

3. Does the MS4 presently include measures for effective water quality protection in its watersheds?

Yes

No If no, explain

4. Does the MS4 track Post-Construction Stormwater Control measures?

Yes

No If no, explain

5. Does the MS4 conduct inspection of permanent stormwater controls and document all findings and enforcement actions?

Yes

No If no, explain

SECTION 5		
TABLE 1: SELECTED BEST MANAGEMENT PRACTICES		
	Name	DESCRIPTION
A.	Post Construction Stormwater Management Program	Implement and enforce a post-construction program that requires controls to be in place to meet prescribed site performance standards to the MEP and to protect water quality.
B.	Post-Construction Stormwater Control Measures (BMP) Inventory	Create and maintain a searchable database of all permanent structural stormwater control measures installed and implemented at new development and redevelopment sites. The inventory shall include all BMP constructed after the issuance of the certificate of coverage.
C.	Post-Construction Site Plan Review	Implement post-construction stormwater site review, approval, and enforcement procedures that include interdepartmental consultations, re-approval of changes or additions to approved stormwater plans, and submittal of "as-built" certifications at project completion.
D.	Long Term BMP Inspection, Maintenance, and Operation	Establish a permanent maintenance agreement, inspection program, and a means of enforcement between the City of Clemson and property owners for continued maintenance of installed ponds and BMPs.
E.	Post-Construction Non-compliance Reporting Mechanism (Similar to Minimum Measure #4)	Receive citizen reports of potential non-compliant post construction issues via an email site or telephone hotline.

TABLE 2: ADMINISTRATIVE INFORMATION	
PRIMARY CONTACT	POSITION OR TITLE
Kent Guthrie	City Engineer
OTHER DEPARTMENT	ROLE
Planning and Codes	Enforce post-development standards and perform stormwater post-construction inspections. Respond to non-compliance reports.
BEST MANAGEMENT PRACTICES (BMPs) MEASURABLE GOALS AND IMPLEMENTATION MILESTONES (Continued)	
GOVERNMENT ENTITY	ROLE

Clemson University	Provide Certified Erosion Prevention and Sediment Control Inspector Certification (CEPSCI) and Certified Stormwater Plan Reviewer training.
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GROUP	TARGET DESCRIPTION
Residents and Home Owners Associations	Residents and homeowners associations located within the Clemson city limits.
Business Owners and Operators	Business owners and operators who conduct business within the Clemson city limits.
Developers, Engineers and Construction Site Operators	Persons responsible for the development, design, and construction of projects within the Clemson city limits.

SECTION 5

TABLE 3: BMP MEASUREABLE GOALS AND IMPLEMENTATION MILESTONES

The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures.

Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.

For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.

BMP A	MEASURABLE GOALS AND MILESTONES
Goals	Ensure that stormwater controls meet minimum performance standards to the MEP, maintain predevelopment conditions, and protect water quality
Milestone Year 1	Establish criteria for site performance standards.
Milestone Year 1	Revise the current stormwater management ordinance to require developer of new development and redevelopment sites with land disturbance greater than one acre to meet site performance standards and to manage the first inch of runoff.
Milestone Year 2	Implement Post-Construction Stormwater Management Program.
Milestone Year 3-5	Complete inspections of permanent stormwater control measures and BMPs and enforce Post-Construction Stormwater Management Program.
BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Maintain updated inventory of permanent stormwater control measures and BMPs
Milestone Year 1	Create a searchable database for permanent stormwater control measures and BMPs.
Milestone Year 2-5	Update inventory to include all new permanent stormwater control measures and BMPs installed after issuance of the Certificate of Coverage.
Milestone Year 2-5	Track and document inspection activities of all permanent stormwater control measures and BMPs.
BMP C	MEASURABLE GOALS AND MILESTONES
Goals	Ensure that all applicable new development and redevelopment sites conform to site performance standards and ensure long term maintenance
Complete	Implement procedures for interdepartmental consultations and required re-approvals.
Milestone Year 1	Require submittal of "as-built" certifications for new development and redevelopment sites.

BMP D	MEASURABLE GOALS AND MILESTONES
Goals	Ensure continuous operation and required maintenance of permanent stormwater control measures and BMPs
Milestone Year 1	Require permanent maintenance agreements for all new development and redevelopment projects.
Milestone Year 2-5	Perform inspections and document findings of permanent stormwater control measures and BMPs to ensure performance and satisfactory maintenance as recommended by the EPA and SCDHEC.
BMP E	MEASURABLE GOALS AND MILESTONES
Goals	Receive and document public comments and concerns and respond to cases within 72 hours.
Complete	Establish a mechanism for the public to submit information regarding stormwater quality violations.
Milestone - Annually	Publicize the phone number, website, etc.
Milestone - Continuous	Receive and respond to complaints, messages, etc. within 72 hours of notification.

**SECTION 6
POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

MUNICIPAL FACILITIES AND STORMWATER CONTROL INVENTORY

1. Has the MS4 owner/operator obtained a SC Industrial Stormwater General Permit coverage or a no-exposure waiver for all qualifying municipal industrial activities? If yes, please give permit numbers or copy of the No-Exposure Certification form.

Yes No SC0020010 SCR002072 SCR005269 Permit Numbers(s)

List municipally-owned or operated facilities that have a notable potential for contaminating runoff: for example - vehicle maintenance garages; waste transfer operations; golf courses; salt or other materials storage; landfill. If more than one facility for a given type of operation; give the number of such facilities. Indicate if any of these are covered by an NPDES permit. Is there a documented pollution prevention plan in place for these facilities?

FACILITY OR TYPE OF OPERATION	NUMBER	IS ACTIVITY COVERED BY NPDES PERMIT?	IS A POLLUTION PREVENTION PLAN IN EFFECT?
Clemson-Central Waste Water Treatment Plant	1	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
City of Clemson Public Works Facility	1	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Clemson Area Transit Facility	1	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
City of Clemson Parks and Recreation Facilities	34	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

In addition to considering industrial-type operations, you must also consider municipal infrastructure, and related maintenance activities, maintenance schedules and long-term inspection procedures for structural controls and the proper disposal of waste from storm sewers/catch basins, etc. Also included in this program area is discharge of pollutants from roads and parking lots. See Part 4.2.6.1

MUNICIPAL OPERATIONS POLLUTION PREVENTION

1. Does the MS4's operations and maintenance program have policies and procedures in place that address pollution prevention? If yes, please describe procedures. Consider the following in your response: Municipally owned or operated facility assessment (4.2.6.2), Facility specific stormwater management SOP and facility stormwater controls (4.2.6.3), Storm sewer system maintenance activities-MS4 Maintenance (4.2.6.4), Flood management projects, (4.2.6.5), Pesticide, herbicide and fertilizer application and management in landscape maintenance (4.2.6.6). You may want to incorporate maintenance activities, maintenance schedules; long term inspection procedures for structural and non-structural stormwater controls to reduce floatables and other pollutants; controls for reducing or eliminating the discharge of pollutants from streets, roads, highways; controls for reducing or eliminating pollutants from municipal parking lots, maintenance and storage yards, fleet or maintenance areas with outdoor storage areas, salt/sand storage areas, snow disposal areas, waste transfer stations; disposal of waste removed from storm sewers and the areas listed above; and assessment of impacts on water quality from all of the above.

Yes
No

SWPPP plans for each city owned industrial site are maintained and kept onsite at each industrial facility. Periodic pollution prevention trainings are conducted by the city engineer as prescribed in the individual SWPPPs for the respective sites.

STAFF EDUCATION AND TRAINING

1. Does the MS4's current operation and maintenance program provide annual training for staff on preventing and reducing stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance?

Yes No If no, explain

2. Are training activities documented? If yes, please describe training and method of record-keeping.

Yes
No

Trainings are conducted periodically by the City Engineer as prescribed in the SWPPP for each city owned industrial site. Attendance is recorded during each training session and attendance logs are maintained onsite with the SWPPP.

REQUIREMENTS FOR CONTRACTORS OVERSIGHT

1. Are contractors hired by the permittee to perform municipal maintenance activities required to comply with all municipal operations control measures?

Yes No If no, explain

City staff will perform municipal maintenance activities.

2. Are oversight procedures documented? If yes, please describe SOP.

Yes
No
N/A

SECTION 6

TABLE 1: SELECTED BEST MANAGEMENT PRACTICES

	Name	DESCRIPTION
A.	Maintain Storm Water Pollution Prevention Plans	Update and maintain SWPPPs for all municipal operations facilities including the City of Clemson Public Works facility and the Clemson Area Transit facility
B.	Provide Staff Training Regarding Stormwater Quality Issues	Provide annual training to municipal operations staff regarding the potential hazards and stormwater quality impacts of municipal operations and current BMPs to remediate those potential impacts
C.	Storm Drainage System Cleaning	Regular cleaning of municipally owned storm drains to remove sediment and debris

TABLE 2: ADMINISTRATIVE INFORMATION

PRIMARY CONTACT	POSITION OR TITLE
Kent Guthrie	City Engineer
OTHER DEPARTMENT	ROLE
Public Works	Facilitate staff training and ensure that SWPPP are followed for all Public Works operations.
Parks and Recreation	Facilitate staff training and ensure that SWPPP are followed for all Parks and Recreation operations.
Planning and Codes	Review Flood Management Plans and revise as necessary.
OTHER INSTITUTION	ROLE
Excal Visual LLP	Supplier of MS4 compliance training materials for municipal operations.

EQUIPMENT NEEDS (IF APPLICABLE)	
Jet-Vac Truck	
Water "Jetter" Trailer	
GROUP	TARGET DESCRIPTION
Municipal Staff and Contractors	Employees and contractors working for the City of Clemson.

SECTION 6

TABLE 3: BMP MEASUREABLE GOALS AND IMPLEMENTATION MILESTONES

The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures.

Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.

For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.

BMP A	MEASURABLE GOALS AND MILESTONES
Goals	Maintain storm water pollution prevention plans (SWPPPs) at City owned facilities as appropriate.
Complete	Create storm water pollution prevention plans for appropriate sites.
Complete	Implement storm water pollution prevention plans.
Milestone Year 1	Inspect facilities for proper disposal of waste materials.
Milestone Year 5	Review and revise current storm water pollution prevention plans.
BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Provide a minimum of one training opportunity per year for those members of City staff that have the potential to directly impact stormwater quality through the normal course of their work.
Milestone Year 1	Develop a training program for City staff regarding stormwater quality.
Milestone Year 1-5	Hold annual employee training.
BMP C	MEASURABLE GOALS AND MILESTONES
Goals	Routinely inspect and clean storm drains to remove sediment and debris
Milestone Year 1	Map all storm drain inlets including catch basins and drop inlets within the City of Clemson.
Milestone Year 2	Prioritize and schedule storm drain cleaning to inspect and clean storm drains in high priority areas annually and low priority areas biennially.
Milestone Year 2	Inspect and clean all storm drains in "high priority" areas.
Milestone Year 3-5	Inspect and clean storm drains as scheduled.

SECTION 7
INDUSTRIAL STORMWATER SOURCES

1. Does the MS4 owner/operator maintain an inventory of all industrial sites/sources permitted under the DHEC Industrial NPDES Permitting program within their jurisdiction (regardless of ownership) that could discharge pollutants in stormwater to the MS4? If yes, please give permit numbers or copy of the No-Exposure Certification form.

Yes

No

Permit Numbers(s)

APPENDIX A

Additional Information

List of entities that operate a small separate sewer system and are located within the City of Clemson SMS4 area, as requested in Section 2.2.2.4 of the SMS4 permit.

- SCDOT
- Clemson University

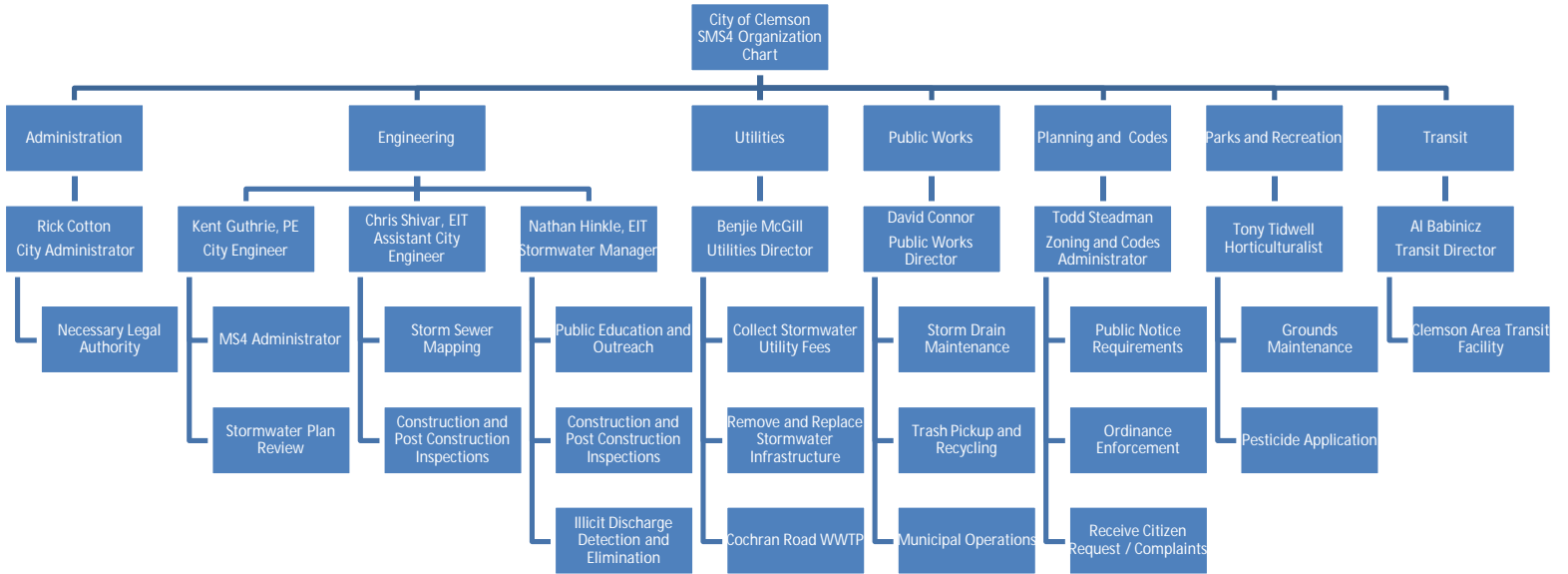
The City of Clemson updated their stormwater ordinance. The new ordinance was approved March 23, 2015. A copy of the approval cover letter is on the following page.

A summary of the dates that the City will follow, as set by the permit, are as follows:

Timeframe	Task
180 days from the date of SCDHEC letter. (April 1, 2015)	Completing NOI
12 Months from date of Certificate of Coverage	SWMP must be submitted
18 Months from date of Certificate of Coverage	Construction and post construction runoff control programs must be implemented
24 Months from date of Certificate of Coverage	Deadline to submit TMDL Monitoring and Assessment Plan
	Deadline to develop adequate legal authority to implement and enforce SWMP
30 Months from date of Certificate of Coverage	Monitoring set out under the TMDL Monitoring and Assessment plans must begin
60 Months from date of Certificate of Coverage	TMDL Implementation Plans must be submitted
	SWMP must be fully implemented

APPENDIX B

Stormwater Management Organizational Chart



APPENDIX C

City of Clemson Ordinance/City Code

Chapter 5

ARTICLE II. - FLOOD DAMAGE PREVENTION

FOOTNOTE(S):

--- (2) ---

Editor's note—Ord. No. CC-2011-07, adopted Sept. 6, 2011, amended Art. II in its entirety to read as herein set out. Former Art. II, §§ 5-20—5-25, pertained to similar subject matter and derived from Ord. No. 2007-02, adopted March 5, 2007; Ord. No. CC-2008-05, adopted Feb. 4, 2008.

- **Sec. 5-20. - General.**

(a)

Statutory authorization. The Legislature of the State of South Carolina has in SC Code of Laws, Title 5 and Title 6, and amendments thereto, delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the City Council of Clemson, South Carolina, does ordain as follows:

(b)

Findings of fact.

(1)

The special flood hazard areas of the City of Clemson, South Carolina, are subject to periodic inundation which results in loss of life, property damage, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

(2)

Furthermore, these flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, floodproofed, or otherwise unprotected from flood damages.

(c)

Statement of purpose and objectives. It is the purpose of this article to protect human life and health, minimize property damage, and encourage appropriate construction practices to minimize public and private losses due to flood conditions by requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction. Uses of the floodplain which are dangerous to health, safety, and property due to water or erosion hazards, or which increase flood heights, velocities, or erosion are restricted or prohibited. These provisions attempt to control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters, and control filling, grading, dredging and other development which may increase flood damage or erosion. Additionally, the article prevents or regulates the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

The objectives of this article are to protect human life and health, to help maintain a stable tax base by providing for the sound use and development of floodprone areas in such a manner as to minimize flood blight areas, and to insure that potential home buyers are notified that property is in a

flood area. The provisions of the article are intended to minimize prolonged business interruptions, damage to public facilities and utilities such as water and gas mains, electric, telephone, and sewer lines, streets and bridges located in the floodplain. Also, an important floodplain management objective of this article is to minimize expenditure of public money for costly flood control projects and rescue and relief efforts associated with flooding.

Floodplains are an important asset to the community. They perform vital natural functions such as temporary storage of floodwaters, moderation of peak flood flows, maintenance of water quality, groundwater recharge, prevention of erosion, habitat for diverse natural wildlife populations, recreational opportunities, and aesthetic quality. These functions are best served if floodplains are kept in their natural state. Wherever possible, the natural characteristics of floodplains and their associated wetlands and water bodies should be preserved and enhanced. Decisions to alter floodplains, especially floodways and stream channels, should be the result of careful planning processes that evaluate resource conditions and human needs.

(d)

Lands to which this article applies. This article shall apply to all areas of special flood hazard within the jurisdiction of the City of Clemson, South Carolina, as identified by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study for Pickens County, South Carolina, dated April 16, 2008, and by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study for Anderson County, South Carolina, dated September 29, 2011, with accompanying maps and other supporting data that are hereby adopted by reference and declared to be a part of this article. Upon annexation, any special flood hazard areas identified by the Federal Emergency Management Agency (FEMA) in its flood insurance study for the unincorporated areas of Pickens County and/or Anderson County, with accompanying map and other data are adopted by reference and declared part of this article.

(e)

Construction. Appropriate permits shall be required in conformance with the provisions of this article prior to the commencement of any development activities.

(f)

Compliance. No structure or land shall hereafter be located, extended, converted, or structurally altered without full compliance with the terms of this article and other applicable regulations.

(g)

Interpretation. In the interpretation and application of this article, all provisions shall be considered as minimum requirements, liberally construed in favor of the governing body, and deemed neither to limit nor repeal any other powers granted under state law. This article is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this article and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

(h)

Partial invalidity and severability. If any part of this article is declared invalid, the remainder of the article shall not be affected and shall remain in force.

(i)

Warning and disclaimer of liability. The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This article does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This article shall not create liability on the part of the City of Clemson, South Carolina, or by any officer or employee thereof for any flood damages that result from reliance on this article or any administrative decision lawfully made hereunder.

(Ord. No. CC-2011-07, 9-6-11)

- **Sec. 5-21. - Definitions.**

Unless specifically defined below, words or phrases used only for this article shall be interpreted so as to give them the meaning they have in common usage and to give this article its most reasonable application.

Accessory structure (appurtenant structure) means structures that are located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Accessory structures should constitute a minimal investment, may not be used for human habitation, and shall be designed to have minimal flood damage potential. Examples of accessory structures are detached garages, carports, storage sheds, pole barns, and hay sheds.

Addition (to an existing building) means an extension or increase in the floor area or height of a building or structure. Additions to existing buildings shall comply with the requirements for new construction regardless as to whether the addition is a substantial improvement or not. Where a firewall or load-bearing wall is provided between the addition and the existing building, the addition(s) shall be considered a separate building and must comply with the standards for new construction.

Agricultural structure means a structure used solely for agricultural purposes in which the use is exclusively in connection with the production, harvesting, storage, drying, or raising of agricultural commodities, including the raising of livestock. Agricultural structures are not exempt from the provisions of this article.

Appeal means a request for a review of the local administrator's interpretation of any provision of this article.

Area of shallow flooding means a designated AO or VO zone on a community's flood insurance rate map (FIRM) with base flood depths of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

Area of special flood hazard means the land in the floodplain within a community subject to a one-percent or greater chance of being equaled or exceeded in any given year.

Base flood means the flood having a one-percent chance of being equaled or exceeded in any given year.

Basement means any enclosed area of a building that is below grade on all sides.

Building - see "Structure".

Critical development means development that is critical to the community's public health and safety, is essential to the orderly functioning of a community, stores or produces highly volatile, toxic or

water-reactive materials, or houses occupants that may be insufficiently mobile to avoid loss of life or injury. Examples of critical development include jails, hospitals, schools, fire stations, nursing homes, wastewater treatment facilities, water plants, and gas/oil/propane storage facilities.

Development means any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

Elevated building means a non-basement building built to have the lowest floor elevated above the ground level by means of solid foundation perimeter walls, pilings, columns, piers, or shear walls parallel to the flow of water.

Executive Order 11988 (Floodplain Management), issued by President Carter in 1977, this order requires that no federally assisted activities be conducted in or have the potential to affect identified special flood hazard areas, unless there is no practicable alternative.

Existing construction means for the purposes of determining rates, structures for which the start of construction commenced before the effective date of the FIRM, or before January 1, 1975, for FIRMs effective before that date.

Existing manufactured home park or manufactured home subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before January 18, 1988.

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete slabs).

Flood means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters, or the unusual and rapid accumulation of runoff of surface waters from any source.

Flood hazard boundary map (FHBM) means an official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the areas of special flood hazard have been defined as zone A.

Flood insurance rate map (FIRM) means an official map of a community on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

Flood insurance study means the official report provided by the Federal Emergency Management Agency which contains flood profiles, as well as the flood boundary floodway map and the water surface elevation of the base flood.

Flood-resistant material means any building material capable of withstanding direct and prolonged contact (minimum 72 hours) with floodwaters without sustaining damage that requires more than low-cost cosmetic repair. Any material that is water soluble or is not resistant to alkali or acid in water, including normal adhesives for above-grade use, is not flood resistant. Pressure-treated lumber or naturally decay-resistant lumbers are acceptable flooring materials. Sheet-type flooring coverings that restrict evaporation from below and materials that are impervious but dimensionally

unstable are not acceptable. Materials that absorb or retain water excessively after submergence are not flood resistant. Please refer to Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, dated 8/08, and available from the Federal Emergency Management Agency. Class 4 and 5 materials, referenced therein, are acceptable flood-resistant materials.

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

Freeboard means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

Highest adjacent grade means the highest natural elevation of the ground surface, prior to construction, next to the proposed walls of the structure.

Historic structure means any structure that is: (a) listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of the Interior [DOI]) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (b) certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; (c) individually listed on a state inventory of historic places; (d) individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified (1) by an approved state program as determined by the Secretary of Interior, or (2) directly by the Secretary of Interior in states without approved programs. Some structures or districts listed on the state or local inventories may not be "historic" as cited above, but have been included on the inventories because it was believed that the structures or districts have the potential for meeting the "historic" structure criteria of the DOI. In order for these structures to meet NFIP historic structure criteria, it must be demonstrated and evidenced that the South Carolina Department of Archives and History has individually determined that the structure or district meets DOI historic structure criteria.

Limited storage means an area used for storage and intended to be limited to incidental items that can withstand exposure to the elements and have low flood damage potential. Such an area must be of flood-resistant or breakaway material, void of utilities except for essential lighting and cannot be temperature controlled. If the area is located below the base flood elevation in an AE zone, it must meet the requirements of subsection [5-23\(a\)](#) of this article.

Lowest adjacent grade (LAG) means is an elevation of the lowest ground surface that touches any deck support, exterior walls of a building or proposed building walls.

Lowest floor means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this article.

Manufactured home means a structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

Manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Mean sea level means, for the purpose of this article, the Nations Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD) of 1988, or other datum, to which the base flood elevations shown on a community's flood insurance rate maps (FIRM) are shown.

National Geodetic Vertical Datum (NGVD) of 1929, as corrected in 1929, means elevation reference points set by National Geodetic Survey based on mean sea level

New construction means structure for which the start of construction commenced on or after January 18, 1988. The term also includes any subsequent improvements to such structure.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete slabs) is completed on or after January 18, 1988.

North American Vertical Datum (NAVD) of 1988 means vertical control, as corrected in 1988, used as the reference datum on flood insurance rate maps.

Recreational vehicle means a vehicle which is: (a) built on a single chassis; (b) 400 square feet or less when measured at the largest horizontal projection; (c) designed to be self-propelled or permanently towable by a light-duty truck; and (d) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Repetitive loss means a building covered by a contract for flood insurance that has incurred flood-related damages on two occasions during a ten-year period ending on the date of the event for which a second claim is made, in which the cost of repairing the flood damage, on the average, equaled or exceeded 25 percent of the market value of the building at the time of each such flood event.

Start of construction for other than new construction or substantial improvements under the Coastal Barrier Resources Act (P.L. 97-348), includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a structure (including a manufactured home) on a site, such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for footings, piers or foundations, or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

Structure means a walled and roofed building, a manufactured home, including a gas or liquid storage tank that is principally above ground.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. Such repairs may be undertaken successively and their costs counted cumulatively. Please refer to the definition of "substantial improvement".

Substantial improvement means any repair, reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. This term includes structures that have incurred repetitive loss or substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

Any project of improvement to a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or

Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

Permits shall be cumulative for a period of five years. If the improvement project is conducted in phases, the total of all costs associated with each phase, beginning with the issuance of the first permit, shall be utilized to determine whether "substantial improvement" will occur.

Substantially improved existing manufactured home park or subdivision means where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds 50 percent of the value of the streets, utilities and pads before the repair, reconstruction, or improvement commenced.

Variance means a grant of relief from a term or terms of this article.

Violation means the failure of a structure or other development to be fully compliant with these regulations.

(Ord. No. CC-2011-07, 9-6-11)

• **Sec. 5-22. - Administration.**

(a)

Designation of local administrator. The zoning and codes administrator is hereby appointed to administer and implement the provisions of this article.

(b)

Adoption of letter of map revisions (LOMR). All LOMRs that are issued in the areas identified in subsection [5-20\(d\)](#) of this article are hereby adopted.

(c)

Designation of party responsible for biennial report. Zoning and codes administrator is hereby designated as the party responsible to submit the biennial report to FEMA.

(d)

Construction permit and certification requirements. Application for a construction permit shall be made to the local administrator on forms furnished by him or her prior to any development activities. The development permit may include, but not be limited to, plans in duplicate drawn to

scale showing: the nature, location, dimensions, and elevations of the area in question; existing or proposed structures; and the location of fill materials, storage areas, and drainage facilities. Specifically, the following information is required:

- (1) A sealed survey that shows the 100-year floodplain contour or a statement that the entire lot is within the floodplain must be provided by the development permit applicant when the lot is within or appears to be within the floodplain as mapped by the Federal Emergency Management Agency or the floodplain identified pursuant to either the duties and responsibilities of the local administrators of subsection [5-22\(e\)\(1\)](#) or the standards for subdivision proposals of subsection [5-23\(b\)\(13\)](#). The survey must be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by it. The survey must show the floodway, if any, as identified by the Federal Emergency Management Agency or the floodway identified pursuant to either the duties or responsibilities of the local administrators of subsection [5-22\(e\)\(1\)](#) the standards for subdivision proposals of subsection [5-23\(b\)\(13\)](#).
- (2) Where base flood elevation data is provided as set forth in subsection [5-20\(d\)](#) or the duties and responsibilities of the local administrators of subsection [5-22\(e\)\(1\)](#), the application for a development permit within the flood hazard area shall show:
 - a. The elevation (in relation to mean sea level) of the lowest floor of all new and substantially improved structures, and
 - b. If the structure will be floodproofed in accordance with the non-residential construction requirements of subsection [5-23\(b\)\(2\)](#) the elevation (in relation to mean sea level) to which the structure will be floodproofed.
- (3) Where any watercourse will be altered or relocated as a result of proposed development, the application for a development permit shall include a description of the extent of watercourse alteration or relocation, an engineering study to demonstrate that the flood-carrying capacity of the altered or relocated watercourse is maintained and a map showing the location of the proposed watercourse alteration or relocation.
- (4) When a structure is floodproofed, the applicant shall provide certification from a registered, professional engineer or architect that the nonresidential, floodproofed structure meets the floodproofing criteria in the nonresidential construction requirements of subsection [5-23\(b\)\(2\)](#).
- (5) A lowest floor elevation or floodproofing certification is required after the lowest floor is completed. As soon as possible after completion of the lowest floor and before any further vertical construction commences, or floodproofing by whatever construction means, whichever is applicable, it shall be the duty of the permit holder to submit to the local

administrator a certification of the elevation of the lowest floor, or floodproofed elevation, whichever is applicable, as built, in relation to mean sea level. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by it. Any work done prior to submission of the certification shall be at the permit holder's risk. The local administrator shall review the floor elevation survey data submitted. The permit holder immediately and prior to further progressive work being permitted to proceed shall correct deficiencies detected by such review. Failure to submit the survey or failure to make said corrections required hereby shall be cause to issue a stop-work order for the project.

(6)

Upon completion of the development a registered professional engineer, land surveyor or architect, in accordance with South Carolina law, shall certify according to the requirements of subsection [5-22\(7\)](#) that the development is built in accordance with the submitted plans and previous pre-development certifications.

(e)

Duties and responsibilities of the local administrator for this article.

(1)

Permit review. Review all development permits to assure that the requirements of this article have been satisfied.

(2)

Requirement of federal and/or state permits. Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by federal or state law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C 1334.

(3)

Watercourse alterations.

a.

Notify adjacent communities and the South Carolina Department of Natural Resources, Land, Water, and Conservation Division, State Coordinator for the National Flood Insurance Program, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

b.

In addition to the notifications required watercourse alterations per subsection [5-22\(e\)\(3\)](#), written reports of maintenance records must be maintained to show that maintenance has been provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is maintained. This maintenance must consist of a comprehensive program of periodic inspections, and routine channel clearing and dredging, or other related functions. The assurance shall consist of a description of maintenance activities, frequency of performance, and the local official responsible for maintenance performance. Records shall be kept on file for FEMA inspection.

c.

- If the proposed project will modify the configuration of the watercourse, floodway, or base flood elevation for which a detailed flood insurance study has been developed, the applicant shall apply for and must receive approval for a conditional letter of map revision with the Federal Emergency Management Agency prior to the start of construction.
- d. Within 60 days of completion of an alteration of a watercourse, referenced in the certification requirements of subsection [5-22\(7\)](#), the applicant shall submit as-built certification, by a registered professional engineer, to the Federal Emergency Management Agency.
- (4) *Floodway encroachments.* Prevent encroachments within floodways unless the certification and flood hazard reduction provisions of subsection [5-23\(b\)\(7\)](#) are met.
- (5) *Adjoining floodplains.* Cooperate with neighboring communities with respect to the management of adjoining floodplains and/or flood-related erosion areas in order to prevent aggravation of existing hazards.
- (6) *Notifying adjacent communities.* Notify adjacent communities prior to permitting substantial commercial developments and large subdivisions to be undertaken in areas of special flood hazard and/or flood-related erosion hazards.
- (7) *Certification requirements.*
- a. Obtain and review actual elevation (in relation to mean sea level) of the lowest floor of all new or substantially improved structures, in accordance with administrative procedures outlined in subsection [5-22\(d\)\(5\)](#).
- b. Obtain the actual elevation (in relation to mean sea level) to which the new or substantially improved structures have been floodproofed, in accordance with the floodproofing certification outlined in subsection [5-22\(d\)\(4\)](#).
- c. When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with the nonresidential construction requirements outlined in subsection [5-23\(b\)\(2\)](#).
- (8) *[Boundary interpretation.]* Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.
- (9)

[Map boundary/field elevation conflict.] Where a map boundary showing an area of special flood hazard and field elevations disagree, the base flood elevations for flood protection elevations (as found on an elevation profile, floodway data table, etc.) shall prevail. The correct information should be submitted to FEMA as per the map maintenance activity requirements outlined in subsection [5-23\(b\)\(8\)](#).

(10)

Special flood hazard area/topographic boundaries conflict. When the exact location of boundaries of the areas special flood hazards conflict with the current, natural topography information at the site; the site information takes precedence when the lowest adjacent grade is at or above the BFE, the property owner may apply and be approved for a letter of map amendment (LOMA) by FEMA. The local administrator in the permit file will maintain a copy of the letter of map amendment issued from FEMA.

(11)

[Inspections.] Make on-site inspections of projects in accordance with the administrative procedures outlined in subsection [5-22\(f\)\(1\)](#).

(12)

[Administrative.] Serve notices of violations, issue stop-work orders, revoke permits and take corrective actions in accordance with the administrative procedures in subsection [5-22\(f\)](#).

(13)

Records maintenance. Maintain all records pertaining to the administration of this article and make these records available for public inspection.

(14)

Annexations and detachments. Notify the South Carolina Department of Natural Resources Land, Water and Conservation Division, State Coordinator for the National Flood Insurance Program within six months of any annexations or detachments that include special flood hazard areas.

(15)

Federally funded development. The President issued Executive Order 11988, Floodplain Management May 1977. E.O. 11988 directs federal agencies to assert a leadership role in reducing flood losses and losses to environmental values served by floodplains. Proposed developments must go through an eight-step review process. Evidence of compliance with the executive order must be submitted as part of the permit review process.

(16)

Substantial damage determination. Perform an assessment of damage from any origin to the structure using FEMA's residential substantial damage estimator (RSDE) software to determine if the damage equals or exceeds 50 percent of the market value of the structure before the damage occurred.

(17)

Substantial improvement determinations. Perform an assessment of permit applications for improvements or repairs to be made to a building or structure that equals or exceeds 50 percent of the market value of the structure before the start of construction. Cost of work counted for determining if and when substantial improvement to a structure occurs shall be

cumulative for a period of five years. If the improvement project is conducted in phases, the total of all costs associated with each phase, beginning with the issuance of the first permit, shall be utilized to determine whether "substantial improvement" will occur. The market values shall be determined by one of the following methods:

b.[a.]

The current assessed building value as determined by the county's assessor's office or the value of an appraisal performed by a licensed appraiser at the expense of the owner within the past six months.

c.[b.]

One or more certified appraisals from a registered professional licensed appraiser in accordance with the laws of South Carolina. The appraisal shall indicate actual replacement value of the building or structure in its pre-improvement condition, less the cost of site improvements and depreciation for functionality and obsolescence.

d.[c.]

Real estate purchase contract within six months prior to the date of the application for a permit.

(f)

Administrative procedures.

(1)

Inspections of work in progress. As the work pursuant to a permit progresses, the local administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local ordinance and the terms of the permit. In exercising this power, the administrator has a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction at any reasonable hour for the purposes of inspection or other enforcement action.

(2)

Stop-work orders. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this article, the administrator in conjunction with the building official may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing the work. The stop-work order shall state the specific work to be stopped, the specific reasons for the stoppage, and the conditions under which the work may be resumed. Violation of a stop-work order constitutes a misdemeanor.

(3)

Revocation of permits. The local administrator in conjunction with the building official may revoke and require the return of the development permit by notifying the permit holder in writing, stating the reason for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, or specifications; for refusal or failure to comply with the requirements of state or local laws; or for false statements or misrepresentations made in securing the permit. Any permit mistakenly issued in violation of an applicable state or local law may also be revoked.

(4)

[Notice of violation.] When the local administrator finds violations of applicable state and local laws, it shall be his/her duty to notify the owner or occupant of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law on the property he owns.

(5)

Actions in event of failure to take corrective action. If the owner of a building or property shall fail to take prompt corrective action, the administrator shall give him written notice, by certified or registered mail to his last known address or by personal service, that the building or property is in violation of the flood damage prevention ordinance;

(6)

Order to take corrective action. If, upon a hearing held pursuant to the notice prescribed above, the local administrator shall find that the building or development is in violation of the flood damage prevention ordinance, he/she shall make an order in writing to the owner, requiring the owner to remedy the violation within such period, not less than 60 days, the local administrator may prescribe; provided that where the administrator finds that there is imminent danger to life or other property, he may order that corrective action be taken in such lesser period as may be feasible.

(7)

Appeal. Any owner who has received an order to take corrective action may appeal from the order to the building board of appeals by giving notice of appeal in writing to the zoning and codes administrator within ten days following issuance of the final order. In the absence of an appeal, the order of the administrator shall be final. The building board of appeals shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.

(8)

Failure to comply with order. If the owner of a building or property fails to comply with an order to take corrective action from which no appeal has been taken, or fails to comply with an order of the city council following an appeal, he shall be guilty of a misdemeanor and shall be punished in the discretion of the court.

(9)

Denial of flood insurance under the NFIP. If a structure is declared in violation of this article and after all other penalties are exhausted to achieve compliance with this article, then the local administrator shall notify the Federal Emergency Agency (FEMA) to initiate a Section 1316 of the National Flood Insurance Act of 1968 action against the structure upon the finding that the violator refuses to bring the violation into compliance with the article. Once a violation has been remedied, the local administrator shall notify FEMA of the remedy and ask that the Section 1316 be rescinded.

(10)

[Incorporated by reference.] The following documents are incorporated by reference and may be used by the local administrator to provide further guidance and interpretation of this ordinance as found on FEMA's website at www.fema.gov:

a.

- b. All FEMA Technical Bulletins;
- c. All FEMA Floodplain Management Bulletins;
- d. FEMA 348 Protecting Building Utilities from Flood Damage;
- e. FEMA 499 Home Builder's Guide to Coastal Construction Technical Fact Sheets.

(Ord. No. CC-2011-07, 9-6-11)

- **Sec. 5-23. - Provisions for flood hazard reduction.**

(a)

General standards. Development may not occur in the special flood hazard area (SFHA) where alternative locations exist due to the inherent hazards and risks involved. Before a permit is issued, the applicant shall demonstrate that new structures cannot be located out of the SFHA and that encroachments onto the SFHA are minimized. In all areas of special flood hazard the following provisions are required:

(1)

All new construction and substantial improvements shall be anchored to prevent flotation, collapse, and lateral movement of the structure.

(2)

All new construction and substantial improvements shall be constructed with flood-resistant materials and utility equipment resistant to flood damage in accordance with Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, dated 8/08, and available from the Federal Emergency Management Agency.

(3)

All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.

(4)

Electrical, ventilation, plumbing, heating and air conditioning equipment (including ductwork), and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of the base flood plus one foot.

(5)

All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

(6)

New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.

(7)

On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

(8)

Any alteration, repair, reconstruction, or improvement to a structure that is in compliance with the provisions of this article, shall meet the requirements of "new construction" as contained in this article. This includes post-FIRM development and structures.

(9)

Nonconforming buildings or uses. Nonconforming buildings or uses may not be enlarged, replaced, or rebuilt unless such enlargement or reconstruction is accomplished in conformance with the provisions of this article. Provided, however, nothing in this article shall prevent the repair, reconstruction, or replacement of an existing building or structure located totally or partially within the floodway, provided that the bulk of the building or structure below base flood elevation in the floodway is not increased and provided that such repair, reconstruction, or replacement meets all of the other requirements of this article.

(10)

Americans with Disabilities Act (ADA). A building must meet the specific standards for floodplain construction outlined in subsection [5-23\(b\)](#), as well as any applicable ADA requirements. The ADA is not justification for issuing a variance or otherwise waiving these requirements. Also, the cost of improvements required to meet the ADA provisions shall be included in the costs of the improvements for calculating substantial improvement.

(b)

Specific standards. In all areas of special flood hazard where base flood elevation data has been provided, as set forth in subsection [5-20\(d\)](#) or outlined in the duties and responsibilities of the local administrator subsection [5-22\(e\)](#), the following provisions are required:

(1)

Residential construction. New construction and substantial improvement of any residential structure (including manufactured homes) shall have the lowest floor elevated no lower than one foot above the base flood elevation. No basements are permitted. Should solid foundation perimeter walls be used to elevate a structure, flood openings sufficient to automatically equalize hydrostatic flood forces shall be provided in accordance with the elevated buildings requirements in subsection [5-23\(b\)\(6\)](#).

(2)

Nonresidential construction. New construction and substantial improvement of any commercial, industrial, or nonresidential structure (including manufactured homes) shall have the lowest floor elevated no lower than one foot above the level of the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, flood openings sufficient to automatically equalize hydrostatic flood forces shall be provided in accordance with the elevated buildings requirements in subsection [5-23\(b\)\(6\)](#). No basements are permitted. Structures located in A zones may be floodproofed in lieu of elevation provided that all areas of the structure below the required elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy.

(3)

[Certification.] A registered, professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certifications shall be provided to the official as set forth

in the floodproofing certification requirements in subsection [5-22\(d\)\(4\)](#). A variance may be considered for wet-floodproofing agricultural structures in accordance with the criteria outlined in subsection [5-24\(d\)](#) of this article. Agricultural structures not meeting the criteria of subsection [5-24\(d\)](#) must meet the nonresidential construction standards and all other applicable provisions of this article. Structures that are floodproofed are required to have an approved maintenance plan with an annual exercise. The local administrator must approve the maintenance plan and notification of the annual exercise shall be provided to it.

(4)

[Manufactured homes.] Manufactured homes are not allowed within any designated floodplain.

(5)

[Recreational vehicles.] Recreational vehicles are not allowed within designated floodplains.

(6)

Elevated buildings. New construction and substantial improvements of elevated buildings that include fully-enclosed areas below the lowest floor that are usable solely for the parking of vehicles, building access, or limited storage in an area other than a basement, and which are subject to flooding shall be designed to preclude finished space and be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.

a.

Designs for complying with this requirement must either be certified by a professional engineer or architect or meet or exceed all of the following minimum criteria:

b.

Provide a minimum of two openings on different walls having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding.

c.

The bottom of each opening must be no more than one foot above the higher of the interior or exterior grade immediately under the opening.

d.

Only the portions of openings that are below the base flood elevation (BFE) can be counted towards the required net open area.

e.

Openings may be equipped with screens, louvers, valves, or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.

f.

Fill placed around foundation walls must be graded so that the grade inside the enclosed area is equal to or higher than the adjacent grade outside the building on at least one side of the building.

g.

Hazardous velocities. Hydrodynamic pressure must be considered in the design of any foundation system where velocity waters or the potential for debris flow exists. If flood velocities are excessive (greater than five feet per second), foundation systems other

than solid foundations walls should be considered so that obstructions to damaging flood flows are minimized.

h.

Enclosures below lowest floor.

1.

Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator).

2.

The interior portion of such enclosed area shall not be finished or partitioned into separate rooms, must be void of utilities except for essential lighting as required for safety, and cannot be temperature controlled.

3.

One wet location switch and/or outlet connected to a ground fault interrupt breaker may be installed below the required lowest floor elevation specified in the specific standards outlined in subsections [5-23\(b\)\(1\)](#), (2), and (3).

4.

All construction materials below the required lowest floor elevation specified in the specific standards outlined in subsections [5-23\(b\)\(1\)](#), (2), and (3) should be of flood-resistant materials.

(7)

Floodways. Located within areas of special flood hazard established in subsection [5-22\(d\)](#) are areas designated as floodways. The floodway is an extremely hazardous area due to the velocity of floodwaters that carry debris and potential projectiles and has erosion potential. The following provisions shall apply within such areas:

a.

No encroachments, including fill, new construction, substantial improvements, additions, and other developments shall be permitted unless: It has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood. Such certification and technical data shall be presented to the local administrator.

1.

A conditional letter of map revision (CLOMR) has been approved by FEMA. A letter of map revision must be obtained upon completion of the proposed development.

2.

If subsection [5-23\(b\)\(7\)](#) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of [section 5-23](#).

3.

Permissible uses within floodways may include: general farming, pasture, outdoor plant nurseries, horticulture, forestry, wildlife sanctuary, game farm, and other similar agricultural, wildlife, and related uses. Also, lawns, gardens, play areas, picnic grounds, and hiking and horseback riding trails are acceptable uses, provided that they do not employ structures or fill. Substantial development of a permissible use may require a no-impact certification. The uses listed in this subsection are permissible only if and to the extent that they do not cause any increase in base flood elevations or changes to the floodway configuration.

(8)

Map maintenance activities. The National Flood Insurance Program (NFIP) requires flood data to be reviewed and approved by FEMA. This ensures that flood maps, studies and other data identified in subsection [5-20\(d\)](#) accurately represent flooding conditions so appropriate floodplain management criteria are based on current data. The following map maintenance activities are identified:

a.

Requirement to submit new technical data.

b.

For all development proposals that impact floodway delineations or base flood elevations, the community shall ensure that technical or scientific data reflecting such changes be submitted to FEMA as soon as practicable but no later than six months of the date such information becomes available. These development proposals include; but are not limited to:

1.

Floodway encroachments that increase or decrease base flood elevations or alter floodway boundaries;

2.

Fill sites to be used for the placement of proposed structures where the applicant desires to remove the site from the special flood hazard area;

3.

Alteration of watercourses that result in a relocation or elimination of the special flood hazard area, including the placement of culverts; and

4.

Subdivision or large scale development proposals requiring the establishment of base flood elevations in accordance with subsection [5-23\(b\)\(13\)d](#).

c.

It is the responsibility of the applicant to have technical data, required in accordance with subsection [5-23\(b\)\(8\)](#), prepared in a format required for a conditional letter of map revision or letter of map revision, and submitted to FEMA. Submittal and processing fees for these map revisions shall also be the responsibility of the applicant.

d.

The local administrator shall require a conditional letter of map revision prior to the issuance of a floodplain development permit for:

- e. Proposed floodway encroachments that increase the base flood elevation; and
 - f. Proposed development which increases the base flood elevation by more than one foot in areas where FEMA has provided base flood elevations but no floodway.
 - g. Floodplain development permits issued by the local administrator shall be conditioned upon the applicant obtaining a letter of map revision from FEMA for any development proposal subject to subsection [5-23\(b\)\(8\)](#).
 - h. Right to submit new technical data. The floodplain administrator may request changes to any of the information shown on an effective map that does not impact floodplain or floodway delineations or base flood elevations, such as labeling or planimetric details. Such a submission shall include appropriate supporting documentation made in writing by the local jurisdiction and may be submitted at any time.
- (9) *Accessory structures.*
- a. A detached accessory structure or garage, the cost of which is greater than \$3,000.00, must comply with the requirements as outlined in FEMA's Technical Bulletin 7-93, Wet Floodproofing Requirements or be elevated in accordance with subsections [5-23\(b\)\(1\)](#) and (b)(6) or dry floodproofed in accordance with subsection [5-23\(b\)\(2\)](#).
 - b. If accessory structures of \$3,000.00 or less are to be placed in the floodplain, the following criteria shall be met:
 - 1. Accessory structures shall not be used for any uses other than the parking of vehicles and storage.
 - 2. Accessory structures shall be designed to have low flood damage potential.
 - 3. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters.
 - 4. Accessory structures shall be firmly anchored to prevent flotation, collapse and lateral movement of the structure.
 - 5. Service facilities such as electrical and heating equipment shall be installed in accordance with subsection [5-23\(a\)\(4\)](#).
 - 6. Openings to relieve hydrostatic pressure during a flood shall be provided below base flood elevation in conformance with subsection [5-23\(b\)\(6\)a](#).

7. Accessory structures shall be built with flood-resistance materials in accordance with Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, dated 8/08, and available from the Federal Emergency Management Agency. Class 4 and 5 materials, referenced therein, are acceptable flood-resistant materials.
- (10) *Swimming pool utility equipment rooms.* If the building cannot be built at or above the BFE because of functionality of the equipment, then a structure to house the utilities for the pool may be built below the BFE with the following provisions:
- a. Meet the requirements for accessory structures in subsection [5-23\(b\)\(9\)](#).
 - b. The utilities must be anchored to prevent flotation and shall be designed to prevent water from entering or accumulating within the components during conditions of the base flood.
- (11) *Elevators.*
- a. Install a float switch system or another system that provides the same level of safety necessary for all elevators where there is a potential for the elevator cab to descend below the BFE during a flood per FEMA's Technical Bulletin 4-93, Elevator Installation for Buildings Located in Special Flood Hazard Areas.
 - b. All equipment that may have to be installed below the BFE such as counter weight roller guides, compensation cable and pulleys, and oil buffers for traction elevators and the jack assembly for a hydraulic elevator must be constructed using flood-resistant materials where possible per FEMA's Technical Bulletin 4-93, Elevator Installation for Buildings Located in Special Flood Hazard Areas.
- (12) *Fill.* An applicant shall demonstrate that fill is the only alternative to raising the building to meet the residential and nonresidential construction requirements of subsections [5-23\(b\)\(1\)](#) and (2) that the amount of fill used will not affect the flood storage capacity or adversely affect adjacent properties. The following provisions shall apply to all fill placed in the special flood hazard area:
- a. Fill may not be placed in the floodway unless it is in accordance with the requirements in subsection [5-23\(b\)\(7\)a](#).
 - b. Fill may not be placed in tidal or non-tidal wetlands without the required state and federal permits.
 - c.

Fill must consist of soil and rock materials only. A registered professional geotechnical engineer may use dredged material as fill only upon certification of suitability. Landfills, rubble fills, dumps, and sanitary fills are not permitted in the floodplain.

d.

Fill used to support structures must comply with ASTM Standard D-698, and its suitability to support structures certified by a registered, professional engineer.

e.

Fill slopes shall be no greater than two horizontal to one vertical. Flatter slopes may be required where velocities may result in erosion.

f.

The use of fill shall not increase flooding or cause drainage problems on neighboring properties.

g.

Fill may not be used for structural support in the coastal high hazard areas.

h.

Will meet the requirements of FEMA Technical Bulletin 10-01, Ensuring That Structures Built on Fill in or Near Special Flood Hazard Areas Are Reasonably Safe from Flooding.

(13)

Standards for subdivision proposals and other development.

a.

All subdivision proposals and other proposed new development shall be consistent with the need to minimize flood damage and are subject to all applicable standards in these regulations.

b.

All subdivision proposals and other proposed new development shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.

c.

All subdivision proposals and other proposed new development shall have adequate drainage provided to reduce exposure to flood damage.

d.

The applicant shall meet the requirement to submit technical data to FEMA in subsection [5-23\(b\)8](#). when a hydrologic and hydraulic analysis is completed that generates base flood elevations.

(14)

Standards for streams with established base flood elevations but without floodways. Along rivers and streams where base flood elevation (BFE) data is provided but no floodway is identified for a special flood hazard area on the FIRM or in the FIS. No encroachments including fill, new construction, substantial improvements, or other development shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the

water surface elevation of the base flood more than one foot at any point within the community.

(Ord. No. CC-2011-07, 9-6-11)

- **Sec. 5-24. - Variance procedures.**

(a)

Establishment of appeal board. The building board of appeals, as established by the City of Clemson, shall hear and decide requests for variances from the requirements of this article.

(b)

Right to appeal. Any person aggrieved by the decision of the appeal board or any taxpayer may appeal such decision to the court.

(c)

Historic structures. Variances may be issued for the repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

(d)

Considerations. In passing upon such applications, the appeal board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this article, and:

(1)

The danger that materials may be swept onto other lands to the injury of others.

(2)

The danger to life and property due to flooding or erosion damage, and the safety of access to the property in times of flood for ordinary and emergency vehicles.

(3)

The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.

(4)

The importance of the services provided by the proposed facility to the community.

(5)

The necessity to the facility of a waterfront location, where applicable.

(6)

The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use.

(7)

The compatibility of the proposed use with existing and anticipated development, and the relationship of the proposed use to the comprehensive plan and floodplain management program for that area.

(8)

The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site.

(9)

The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

(10)

Agricultural structures must be located in wide, expansive floodplain areas, where no other alternative location for the agricultural structure exists. The applicant must demonstrate that the entire farm acreage, consisting of a contiguous parcel of land on which the structure is to be located, must be in the special flood hazard area and no other alternative locations for the structure are available.

(11)

Findings. Findings listed above shall be submitted to the appeal board, in writing, and included in the application for a variance. Additionally, comments from the Department of Natural Resources, Land, Water and Conservation Division, State Coordinator's Office, must be taken into account and included in the permit file.

(12)

Floodways. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result unless a CLOMR is obtained prior to issuance of the variance. In order to ensure the project is built in compliance with the CLOMR for which the variance is granted the applicant must provide a bond for 100 percent of the cost to perform the development.

(e)

Conditions. Upon consideration of the factors listed above and the purposes of this article, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this article. The following conditions shall apply to all variances:

(1)

Variances may not be issued when the variance will make the structure in violation of other federal, state, or local laws, regulations, or ordinances.

(2)

Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(3)

Variances shall only be issued upon a showing of good and sufficient cause, a determination that failure to grant the variance would result in exceptional hardship, and a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(4)

Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation (BFE) and the elevation to which the structure is to be built and a written statement that the cost of flood insurance will be commensurate with the increased risk. Such notification shall be maintained with a record of all variance actions.

(5) The local administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency (FEMA) upon request.

(6) Variances shall not be issued for unpermitted development or other development that is not in compliance with the provisions of this article. Violations must be corrected in accordance with subsection 5-22(f)(5) of this article.

(Ord. No. CC-2011-07, 9-6-11)

• **Sec. 5-25. - Legal status provisions.**

(a) *Effect on rights and liabilities under the existing flood damage prevention ordinance.* This article in part comes forward by re-enactment of some of the provisions of the flood damage prevention ordinance enacted January 18, 1988, and it is not the intention to repeal but rather to re-enact and continue to enforce without interruption of such existing provisions, so that all rights and liabilities that have accrued there under are reserved and may be enforced. The enactment of this article shall not affect any action, suit or proceeding instituted or pending. All provisions of the Flood Damage Prevention Ordinance of the City of Clemson, South Carolina, enacted on January 18, 1988, as amended, which are not reenacted herein, are repealed.

(b) *Effect upon outstanding building permits.* Nothing herein contained shall require any change in the plans, construction, size or designated use of any building, structure or part thereof for which a building permit has been granted by the chief building inspector or his authorized agents before the time of passage of this article; provided, however, that when start of construction has not occurred under such outstanding permit within a period of 60 days subsequent to passage of this article, construction or use shall be in conformity with the provisions of this article.

(c) *Effective date.* The ordinance from which this article derives shall become effective upon adoption.

(Ord. No. CC-2011-07, 9-6-11)

Chapter 9

ARTICLE II. - COLLECTION AND DISPOSAL

Sec. 9-20. - Administration; responsibility of sanitation department.

(a) *Responsible agency.* The department of sanitation shall administer and enforce the provisions of this article.

(b) *Functions and powers.* It is the responsibility of the department of sanitation to:

(1) Collect, transport and dispose of all refuse and to carry out the intent of this article.

(2)

- Investigate complaints.
- (3) Establish appropriate routes and schedules for refuse and yard rubbish collection in residential, commercial, and industrial areas.
- (4) Designate the size and type of receptacle or container that must be installed.
- (5) Inspect the sanitary landfill and its operation.
- (6) Approve the location where containers are to be serviced prior to the issuance of a building permit and determine the practicality of existing container installations.
- (7) Determine the necessity and reasonableness of having the collectors enter any structure to collect refuse and other collectible waste.
- (8) Notify the responsible party of nonconforming receptacles or containers and nonconforming precollection practices.

(Code 1979, § 6-1002; Ord. No. CC-85-014, § 1, 10-7-85)

- **Sec. 9-21. - Inspection.**

The sanitation supervisor or the supervisor's representative shall have the authority, with proper legal authorization, to enter at any reasonable time upon public or private property to investigate conditions related to the matters covered by this article.

(Code 1979, § 6-1003)

- **Sec. 9-22. - Notice of violation—Issuance; method of service.**

(a)

The sanitation supervisor or the supervisor's authorized representative shall have the authority to approve the issuance of warning notices for violation. Whenever the sanitation supervisor determines there has been a violation of this article, such supervisor shall give notice of such violation to the property owner and/or person or agent responsible and/or occupant in accordance with the responsibilities set out in this article. Such notice shall be in writing, allow 15 days from its receipt for performance of any act it requires, specify the manner in which the violation may be corrected, and state that, if such correction is not voluntarily completed within such time, legal proceedings against the violator shall be instituted, and sanitation service may be terminated until the violation is corrected.

(b)

Service of notice shall be by delivery to the property owner and/or the person or agent responsible and/or the occupant personally; or by leaving such notice at the usual place of abode of such party or the owner or person responsible with person of suitable age or discretion; or by depositing the notice in the United States Post Office addressed to the owner or person responsible at his last known address, with postage prepaid; or if service of notice cannot be obtained in either of the above methods, by posting and keeping posted for 24 hours a copy of the notice in a conspicuous place on the premises where the violation has occurred.

(Code 1979, § 6-1004)

- **Sec. 9-23. - Same—Appeal.**

Within five days following receipt of notice of violation, any person receiving such notice, believing that the literal application of this article will cause undue hardship or has been misconstrued, may appeal to the city administrator. The city administrator may, after investigation of the appeal and grounds thereof, permit in writing, in appropriate cases, a reasonable extension of time or relief from strict compliance with the provisions of this article.

(Code 1979, § 6-1005)

- **Sec. 9-24. - Additional remedies.**

(a)

In addition to other provisions of this Code, the sanitation supervisor may authorize discontinuance of service where any use willfully violates any of the provisions in this chapter, so long as such discontinuance does not result in the occurrence of a nuisance, after which occurrence the supervisor may authorize special measures to service such user.

(b)

After due notice of such action to the user, the cost thereof shall become a lien against the property of the user or owner. The cost of such action shall be an assessment against the property owner, and the expense shall be added to the annual tax levied and shall be collected by the city in the same manner as the annual property tax.

(c)

The city administrator may waive the issuance of any warning notices or waiting periods and institute legal proceedings immediately if it is determined that the same owner, occupant or person responsible has been given notice for the same violation at that same location within the previous 180 days.

(Code 1979, § 6-1006)

- **Sec. 9-25. - Precollection practice—Residential units.**

(a)

The occupants, whether owners or tenants, of single and multiple residential units requiring a 92-gallon rollcart or less in which to store their refuse between collections shall adhere to the following precollection practices:

(1)

Separation.

a.

Garbage, general rubbish, and ashes shall be grouped together.

b.

Garbage and ashes shall be placed in plastic bags before being placed in rollcarts.

c.

Leaves, yard rubbish, and residential bulk waste shall be separated from the waste specified in this subsection (a)(1) and each other.

d.

Grass clippings and leaves shall be separated from yard rubbish.

(2)

Treatment.

- a. Garbage shall be drained.
- b. Ashes shall be cold.
- c. Tree branches and shrubbery trimmings shall be cut to length no longer than six feet.
- d. Boxes, crates, and cartons shall be broken up.
- e. Refrigerator and freezer doors shall be removed.
- f. Leaves, yard rubbish, and residential bulk waste will be picked up as soon as is practical after notification has been given by telephone to the city hall.

(3)

Storage.

- a. Garbage, general rubbish, and ashes enclosed in plastic bags shall be stored in rollcarts.
- b. Leaves and yard rubbish may be stored in carts.

(4)

Placement.

- a. All residential rollcarts on scheduled pickup days shall be placed at the curbside or adjacent to the street in an easily accessible location no more than six feet away from the curb or street. Carts shall be removed by sunset on the day of collection.
- b. Leaves, yard rubbish, and residential bulk waste shall be placed at the curb for collection.
- c. Placement of all items at the curb shall be located so as to be unobstructed to pickup by vehicle.

(b)

The owner of, or the owner's agent for, multiple residential units requiring in excess of two 92-gallon capacity carts to contain solid waste volume between collections shall be required to provide, place, and install containers, except where the installation of a container is impractical as determined by the sanitation department. The user of such containers shall adhere to the following precollection practices:

(1)

Separation.

- a.

Garbage, general rubbish, yard rubbish, and ashes shall be grouped together for collection.

- b. Residential bulk waste shall be separated from the waste specified in this subsection (b)(1).

(2)

Treatment.

- a. Garbage shall be drained.
- b. Boxes, crates, and cartons shall be broken up.
- c. Ashes shall be cold.
- d. Refrigerator and freezer doors shall be removed.
- e. Containers shall be drained of all accumulated liquids.
- f. Leaves, yard rubbish, and residential bulk waste will be picked up as soon as is practical after notification has been given by telephone to the city hall.

(3)

Storage.

- a. Garbage, general rubbish, yard rubbish, and ashes shall be placed in tied plastic bags of two mils thickness or greater before being placed in the container that is on the premises for storage.
- b. Residential bulk waste shall be placed at the curb for collection as soon as is practical after notification has been given by telephone to the city hall.

(Code 1979, § 6-1007; Ord. No. CC-85-014, § 1, 10-7-85; Ord. No. CC-86-010, 7-21-86; Ord. No. CC-86-012, 1-6-86)

- **Sec. 9-26. - Same—Business and institutional units.**

(a)

The occupants, whether owners or tenants, of retail, commercial, institutional, and industrial units requiring four or less ten- to 32-gallon refuse receptacles to contain their solid waste in an average business week shall adhere to the following precollection practices, and shall be responsible for providing and placement of such receptacles:

(1)

Separation.

- a. Garbage, market refuse, general rubbish, and ashes shall be combined for collection purposes.

- b. Garbage, general rubbish, and ashes shall be placed in plastic bags of not less than three mils thickness.

(2)

Treatment.

- a. Garbage and market refuse shall be drained of all liquids.
- b. Boxes, crates, cartons, and other similar items shall be broken up.
- c. Ashes shall be cold.

(3)

Storage.

- a. Garbage, market refuse, general rubbish, and ashes, enclosed in plastic bags of not less than three mils in thickness, shall be stored in refuse receptacles.
- b. General bulk waste shall be left loose outside of the refuse receptacles.

(4)

Placement.

- a. All refuse receptacles shall be placed at the rear of the structure in an easily accessible location. In the case of isolated structures, where reasonable access cannot be had by a truck, the refuse receptacles may be kept in such places as may be agreed upon by the owner and the sanitation supervisor.
- b. Underground or sunken receptacle storage vaults will be acceptable, provided collections can be made easily, and the storage vault is kept free of water, snow, ice and refuse, and is properly drained.
- c. General bulk waste shall be placed adjacent to the refuse receptacles in a location that is easily accessible to the collectors.

(b)

The owner of, or the owner's agent for, retail, commercial, institutional, and industrial units requiring in excess of four refuse receptacles to contain their solid waste volume in an average business week will be required to provide, place, and install containers for solid waste storage and collections, except where the installation of a container is impractical as determined by the sanitation department. Retail, commercial, institutional, and industrial units using containers will adhere to the following precollection practices:

(1)

Separation. Garbage, market refuse, general rubbish, and ashes shall be combined for collection purposes.

(2)

Treatment.

- a. Garbage and market refuse shall be drained of all liquids.
- b. Ashes shall be cold.
- c. Boxes, crates, cartons, and other similar items shall be broken up.
- d. All containers shall be drained of accumulated liquids.

(3)

Storage. Garbage, market refuse, general rubbish, and ashes shall be placed in tied plastic bags of three mils thickness or greater before being placed in the container that is on the premises for storage.

(4)

Placement. Containers shall be placed in a position easily accessible to the equipment required to service the containers.

(c)

Businesses located in the immediate downtown area and having no easily accessible rear entrance suitable for the collection of refuse shall adhere to the following precollection practices:

(1)

Separation.

- a. Garbage, market refuse, general rubbish, and ashes shall be combined for collection purposes.
- b. Bulk items shall be separated from the waste specified in this subsection (c)(1).
- c. Grass clippings and leaves shall be separated from yard rubbish.

(2)

Treatment.

- a. Garbage and market refuse shall be drained of all liquids.
- b. Boxes, crates, cartons, etc., shall be broken up.
- c. Ashes shall be cold.

(3)

Storage.

- a. Garbage, market refuse, ashes, and general rubbish shall be stored in plastic bags tightly sealed of not less than three mils thickness.

b.

Bulk items shall be stored loose outside the plastic bags, provided they are free of garbage and other putrescible waste and provided they do not in any way constitute a hazard to the general public or the environment.

(4)

Placement. All refuse and bulk items shall be placed at the curb at a time agreed upon by the owner and the sanitation supervisor.

(Code 1979, § 6-1008; Ord. No. CC-85-014, § 1, 10-7-85)

• **Sec. 9-27. - Collection practices—General.**

In general, the city will be responsible for the collection of wastes which come under the following waste categories:

(1)

Garbage.

(2)

Market refuse.

(3)

General rubbish.

(4)

Yard rubbish.

(5)

Ashes.

(6)

General bulk waste.

(7)

Residential bulk waste.

(Code 1979, § 6-1009)

• **Sec. 9-28. - Same—Specific.**

The city shall make specific collections of refuse and other waste as follows:

(1)

Residential units.

a.

Single residential units and multiple residential units using rollcarts:

1.

Garbage, general rubbish, and ashes. Garbage, general rubbish, and ashes shall be collected from all single-family residential units using rollcarts and from all multiple residential units using rollcarts for the storage of refuse on a regular schedule of one pickup per week.

2.

Leaves, yard rubbish and residential bulk waste. Residential bulk waste will be collected on an on call basis between the hours of 8:30 a.m. and 4:30 p.m. daily, Monday through Friday, inclusive. Residents having waste of this type should call

the city hall for instructions on handling, and for an expected pickup date. Additional rates may be charged for such services at the discretion of the city.

3. The disposal of small dead animals shall be the responsibility of the owner, where feasible, and picked up by the city only by specific authorization of the sanitation supervisor.
4. All other collectible waste classifications. No other types of collectible wastes than those specified in this subsection a. will be collected by the sanitation department from single residential units and multiple residential units using rollcarts.

b. Multiple residential units using containers:

1. Garbage, general rubbish, yard rubbish, and ashes shall be collected from all multiple residential units using commercial containers on a regular schedule of at least one pickup per week.
2. Residential bulk waste. Residential bulk waste will be collected on an "on call" basis between the hours of 8:30 a.m. and 4:30 p.m. daily, Monday through Friday, inclusive. Residents having waste of this type should call the city hall for instructions on handling and for an expected pickup date. Additional rates may be charged for such services at the discretion of the city.
3. All other collectible waste classifications. No other types of collectible wastes than those specified in this subsection b. will be collected by the department of sanitation from multiple residential units using commercial container service.

(2)

Business and institutional units.

a.

Retail, commercial, institutional and industrial units using refuse receptacles:

1. Garbage, market refuse, general rubbish, and ashes shall be collected from all retail, commercial, institutional, and industrial units using refuse receptacles on a regular schedule of at least one pickup per week. Additional pickups per week shall be paid for at a fee set by city council. Exception: Businesses located in the immediate downtown area and having no easily accessible rear entrance suitable for the collection of refuse as designated by the superintendent of sanitation will have their refuse collected daily, at the curbside, beginning at 7:00 a.m., and running through the completion of the collection route. Additional pickups beyond three per week shall be paid for at a fee set by the city council.
- 2.

General bulk waste. General bulk waste items will be collected on an on call basis between the hours of 8:30 a.m. and 4:30 p.m. daily, Monday through Friday, inclusive. Residents having waste of this type should call the public works department for instructions on handling and for an expected pickup date. Additional rates may be charged for such services at the discretion of the city.

3.

All other collectible waste classifications. No other types of collectible waste than those specified in this subsection (2)a will be collected by the department of sanitation.

b.

Retail, commercial, institutional, and industrial units using container service:

1.

Garbage, market refuse, general rubbish, and ashes. Garbage, market refuse, general rubbish, and ashes shall be collected from all retail, commercial, institutional, and industrial units using containers on a schedule either designated by or approved by the supervisor of sanitation. Pickups per week may run from as few as one per week to as many as five per week depending on the service required and the particular circumstances of the specific user. Additional pickups per week beyond one shall be paid for by a fee set by city council. Service to these units will be limited to container service only. No other type of collection will be provided.

2.

All other waste collections. No other types of collectible waste than those specified in this subsection (2)b will be collected by the department of sanitation from retail, commercial, institutional, and industrial units using container service.

c.

In order to qualify for city collection, waste containers for a front-loading type system can be leased only from the city.

(Code 1979, § 6-1010; Ord. No. CC-86-010, 7-21-86; Ord. No. CC-87-014, 7-7-87)

• **Sec. 9-29. - Items not collected.**

(a)

The department of sanitation shall not collect the following items; these are the responsibility of the persons indicated for each, respectively:

Solid Waste	Responsible Agency
Street refuse	City public works department
Large dead animals	Owner
Abandoned vehicles	Owner

Construction and demolition waste, including waste from professional tree trimmers or surgeons	Contractor or property owner
Industrial waste in large quantities	Owner
Special waste	Owner
Animal and agricultural waste	Owner
Sewage treatment residues	Owner
Any solid waste item that has demonstrated by experience that it has a high probability of inflicting damage to the collection equipment used by the city	Owner

(b) Upon request by any of the specified individuals or responsible agencies, and when reasonably feasible in the opinion of the sanitation supervisor, the sanitation supervisor will evaluate and prepare estimates as needed of the costs of providing collection and disposal of waste in any of the above solid waste categories, and may, at the discretion of the city and with the prior approval of the city administrator, enter into a contract with any such responsible agency to provide special collection and disposal services at such additional rates as may be mutually agreed upon.

(Code 1979, § 6-1011)

- **Sec. 9-30. - Transportation.**

(a)

All garbage, market refuse, general rubbish, yard rubbish, ashes, and bulky waste that may be categorized as general rubbish shall be transported in a covered, watertight vehicle so as to prevent falling or spillage.

(b)

All residential bulk items may be transported in an open-body truck.

(c)

Refuse-hauling vehicles shall be thoroughly washed or treated on a regular basis.

(d)

All other items which are not collected by the department of sanitation; i.e., construction and demolition waste, general bulk items, industrial refuse, special refuse, and animal and agricultural waste, and which are the responsibility of the producer, shall be transported according to the rules and regulations of the state department of health and environmental control.

(Code 1979, § 6-1012)

- **Sec. 9-31. - Disposal.**

(a)

Disposal of all solid waste transported by city sanitation vehicles shall be at the sanitary landfill, in accordance with the rules and regulations of the state department of health and environmental control and the county.

(b)

All other items not collected and disposed of by the city shall follow the rules and regulations of the state department of health and environmental control as it pertains to the individual method of disposal used, whether it is incineration, sanitary landfill, or some other disposal method.

(Code 1979, § 6-1013)

• **Sec. 9-32. - Prohibited activities.**

(a)

Refuse receptacles, containers, etc. It shall be unlawful:

(1)

For any unauthorized person to remove, disarrange, or interfere with refuse receptacles or containers used for the collection of refuse or the contents of any such refuse receptacles or containers.

(2)

For any person to break or damage any refuse receptacle or container used for refuse collection.

(3)

To fail to keep all refuse receptacles and containers clean, sanitary, tightly covered, and in good repair.

(b)

Storage. It shall be unlawful:

(1)

To deposit yard rubbish, bulk waste, or dead animals on any lot other than one owned by the depositor, whether vacant or improved, occupied or unoccupied, within the city.

(2)

For any person to permit refuse to be scattered upon the streets of the city.

(3)

To place hot ashes, etc., or any burning matter in any refuse receptacle, container or wastepaper bin.

(4)

For the responsible party to fail to provide sufficient refuse receptacles or containers pursuant to the requirements of this article.

(5)

To place in a refuse receptacle, container, or wastepaper bin, or to leave loose, construction and demolition waste, industrial refuse, special refuse, or animal or agricultural waste for collection by the department of sanitation.

(c)

Transportation. It shall be unlawful to transport materials without protecting against spillage or leakage.

(d)

Collection.

(1)

Collectors shall not be permitted to enter any structure, including houses, business establishments, porches, garages, wastepaper bins, etc., to make collection unless it is considered necessary and reasonable by the sanitation supervisor.

(2)

Collectors shall not be required to make collections when any animal located on the premises reasonably appears a threat to the safety of the collector.

(3)

No person shall collect or remove any form of waste, except those items prohibited for pickup by the department of sanitation, without the written approval of the city administrator.

(Code 1979, § 6-1014)

• **Sec. 9-33. - Rental rate of solid waste containers.**

The city shall offer for lease solid waste containers of the rear-loading type at rates prescribed from time to time by the city.

(Code 1979, § 6-1016)

• **Sec. 9-34. - Penalty for violation.**

Violations of this article shall be punishable by a fine or imprisonment, or both, not to exceed \$500.00 or 30 days.

(Ord. No. CC-85-014, § 1, 10-7-85; Ord. No. CC-93-009, 8-2-93)

Note— See the editor's note following [§ 1-8](#).

• **Sec. 9-35. - Care, maintenance, replacement, and issuance of rollcart containers.**

(a)

Care and maintenance of rollcarts, garbage, refuse, and waste containers. The occupants of any building for which a rollcart container has been provided shall be responsible for the following:

(1)

Placing the container in a location where it will not be subject to damage by vehicular or other traffic, including lawnmowers.

(2)

Oiling the wheels at intervals to maintain easy operation and to prevent unnecessary wear.

(3)

Preventing the placing in the container of any hot materials, solvents, or any other item or material which may damage plastic.

(4)

Keeping the container in a clean and sanitary condition.

(5)

Placing the container in a readily accessible location as near the street as possible (six feet or less) on scheduled collection days.

(b)

Replacement of damaged carts. The owners of any building for which a rollcart has been provided shall be required to pay the cost of replacement of any cart which is damaged as a result of

carelessness, improper use, neglect, or any other cause not resulting from actions of city personnel.

(c)

Issuance of rollcarts.

(1)

All single-family households will be issued a rollcart in which to store their refuse between collections. Exceptions may be made only by the sanitation supervisor. Additional rollcarts may be purchased for single-family households.

(2)

Certain multifamily residential units will be issued rollcarts if it is advantageous to the sanitation department to speed up collection time. The sanitation department supervisor will make a determination on an individual basis as to the feasibility of using rollcarts or rear-loading containers.

(Ord. No. CC-86-010, 7-21-86)

- **Sec. 9-36. - Assistance for disabled persons.**

If a resident is physically unable to place the cart at the curbside and there is no one living in the household or nearby that will place it on the curb for him, the resident may request special pickup consideration. All requests are to be made in writing to the sanitation department supervisor, who will then make a determination as to whether a pickup at the back door is warranted. Disabled residents must comply with all other provisions of this chapter.

- **Sec. 9-37. - Sanitation, garbage and trash collection fees.**

The city shall assess sanitation, garbage and trash collection fees as established by ordinance from time to time.

Chapter 11

Article II

DIVISION 2. - PROHIBITED USE OF PUBLIC SEWER

- **Sec. 11-35. - Discharge of stormwater, surface water, etc.**

(a)

No person shall discharge or cause to be discharged into any sanitary sewers any stormwater, surface water, groundwater, roof runoff, or subsurface drainage.

(b)

Stormwater and surface drainage shall be admitted to only such sewers as are specifically designated as storm sewers or storm drains.

(c)

Unpolluted process and cooling waters may, upon written application and approval by the approving authority, be discharged to storm sewers or storm drains; in the absence of such sewers and drains, authority may be granted to discharge into the sanitary sewer system upon written application.

(Ord. of 4-18-83, §§ 201, 202)

- **Sec. 11-36. - Prohibited waters and waste.**

Except as provided in [section 11-37](#), no person shall discharge or cause to be discharged any of the following described waters or waste into any public sanitary sewer:

- (1) Any clothing, rags, textile, remnants or wastes, cloth, scraps, etc., except fibers, scraps, etc., which will pass through a quarter-inch mesh screen or its equivalent in screening ability.
- (2) Any liquid or vapor having a temperature higher than 160 degrees Fahrenheit; but in no case wastewater with a temperature at the introduction into the POTW which exceeds 40 degrees Celsius (104 degrees Fahrenheit).
- (3) Any water or waste containing more than 100 parts per million by weight of fats, oils or grease.
- (4) Any liquids, solids, or gases which, by reason of their nature or quality, may cause fire or explosion, or be in any way injurious to persons, the sewer system, the sewage treatment works, or the operation of the sewage treatment works.
- (5) Any liquid wastes in which the suspended solids exceed 250 parts per million by weight.
- (6) Any liquid wastes having a BOD of more than 250 parts per million, except as provided for in [section 11-37](#).
- (7) Any waters or wastes having a stabilized pH lower than 6.0 or higher than 9.0 or having other corrosive property capable of causing damage or hazards to structures, equipment, or personnel of the sewage works.
- (8) Any waters or wastes containing a poisonous or toxic substance or any other materials in sufficient quantity to damage or interfere with any sewage treatment process, or constitute a hazard to humans or animals, or create any hazard in the receiving stream at the sewage treatment plant, or cause the city to be in violation of its NPDES permit.
- (9) Any waters or wastes containing suspended solids of such character and quantity that unusual attention or expense is required to handle such materials in the sewer system.
- (10) Any noxious or malodorous gas or substance capable of creating a public nuisance.
- (11) Any garbage that has not been properly shredded.
- (12) Any ashes, cinders, sand, mud, straw, shavings, metal, glass, bones, feathers, tar, plastics, wood, paunch manure, butcher's offal, or any other solid or viscous substances capable of causing obstruction to the flow in the sewer or other interference with the proper operation of the sewer system.
- (13)

Any materials which form excessive amounts of scum that may interfere with the operation of the sewage treatment works or cause undue additional labor in connection with its operation.

(14)

Any waters or wastes containing dyes or other color which cannot be removed by biological processes and which require special chemical treatment.

(15)

Any waters or wastes containing lint in such quantities as to be detrimental to sewer lines, sewage pumps or sewage treatment works.

(16)

Any substance released at a flow rate (slug discharge) or concentration which will cause interference at the sewage treatment plant or cause the sewage treatment plant to contravene its NPDES limits for its discharge or cause contamination of the sludge and prevent its usual method of disposal.

(17)

Any wastewater containing any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the city in compliance with applicable state or federal regulations.

(Ord. of 4-18-83, § 203)

- **Sec. 11-37. - Granting exceptions to restrictions.**

The approving authority, without limitation by other sections of this article, may authorize any person to discharge industrial waste of unusual strength or character into the sewers of the city under approved conditions or pretreatment. The approving authority may prohibit entry of particular industrial wastes into the sanitary sewer whenever such action is necessary to prevent damage to the system or to determine the effects of such wastes on the sewage system.

(Ord. of 4-18-83, § 204)

- **Secs. 11-38, 11-39. - Reserved.**

DIVISION 4. - OPERATIONS AND CONTROL

- **Sec. 11-55. - Right-of-entry.**

The approving authority and duly authorized representatives of the city shall be permitted to enter upon all properties for the purpose of inspection, observation, measurement, sampling and testing, in accordance with the provisions of this article. The city shall notify the user or a representative of the user, if available, prior to entering the premises.

(Ord. of 4-18-83, § 401)

- **Sec. 11-56. - Emergency action.**

In the event of imminent danger to the public health and safety, the approving authority and duly authorized representatives shall be permitted to take such emergency action as may be deemed necessary for the operation of the sewer system, including, but not limited to, the right to close down any sewer or portion of the sewer system for the purpose of making connections, alterations, or repairs. During such event, the approving authority will make every effort to minimize inconvenience and return the service to full operation as quickly as possible.

(Ord. of 4-18-83, § 402)

- **Sec. 11-57. - Procedure for tests and analyses.**

All tests and analyses of the characteristics of sewage to which reference is made in this article shall be made in accordance with the procedures acceptable to the approving authority. Such tests and analysis shall be determined at the control manhole provided for in [section 11-49](#), or at the point of discharge of any sewage at the site of its origin on the premises of any user discharging such sewage into the sewers.

(Ord. of 4-18-83, § 403)

- **Sec. 11-58. - Water volume bases—Metered water or average flow.**

The volume of flow used in computing water user charges and cost recovery charges shall be based upon metered water consumption, as shown in the records of meter reading maintained by the appropriate water authority, or by average flows determined by the approving authority. If a user discharging wastes into the sanitary sewer system produces evidence satisfactory to the approving authority that greater than ten percent of such user's water used does not reach the sanitary sewer, the user may apply to the approving authority for a reduced percentage of total water consumption to be used in computing sewer charges.

(Ord. of 4-18-83, § 404)

- **Sec. 11-59. - Same—Private meters.**

Where the user discharging wastewater into the sanitary sewers of the city procures any part, or all, of such user's water supply from sources other than one recognized and accepted by the approving authority, all or part of which is discharged into the sanitary sewer, the user discharging such waste may be required to install and maintain, at such user's expense, water meters of a type approved by the approving authority for the purpose of determining the proper volume of flow to be charged. The approving authority shall have a right to read such private meters.

(Ord. of 4-18-83, § 405)

- **Sec. 11-60. - Approval of connection.**

All sewer taps shall conform to the requirements of the approving authority in location, size, type, materials and method used and shall be accomplished only by a plumber authorized by the approving authority. It shall become the responsibility of each user requesting connection to the public sewer to notify the approving authority and arrange for final inspection of the connection before placing in use.

(Ord. of 4-18-83, § 406)

- **Sec. 11-61. - Liability for stoppage, damage or abuse.**

All users using the public sewer shall be responsible for any stoppage or damage caused by abuse of the sewer system through the sewer connection of that user and shall be held accountable for all expenses incurred by the city or other property owners as a result of the abuse.

(Ord. of 4-18-83, § 407)

- **Sec. 11-62. - Connection—Required.**

(a)

All sewage discharge lines from dwellings, industries, and businesses shall be connected to the city system, except as exempted in this division.

(b)

Wherever the public sewer exists within 250 feet of a building, the user shall be required to pay a user fee regardless of whether or not such person connects to the available sewer line.

(c)

Any person residing within 250 feet of any public sewer shall be considered by the approving authority as a user of the public sewer, and shall be subject to all provisions of this article.

(Ord. of 4-18-83, §§ 408, 414; Mo. of 11-19-84)

- **Sec. 11-63. - Same—Application; fee.**

Any user desiring connection to be made with the sewer system shall make application on the appropriate form to the approving authority, stating the name of the owner of the property, the location of the lot, and kind of connection desired. Every such application shall be signed by the user making the application and shall be accompanied by the appropriate connection fee. Fees shall be those as periodically adopted by the approving authority. The city shall extend service lines to the property line of the user or for a distance of 60 feet from its collector line, whichever is the lesser.

(Ord. of 4-18-83, § 409)

- **Sec. 11-64. - Same—Discontinuance or prevention.**

The approving authority reserves the right to disconnect water service or discontinue the sewer connection by any user until such time as the requirements of this article have been fulfilled to the satisfaction of the approving authority. When deemed necessary by the approving authority to protect the sewer system or the public, the approving authority may discontinue or prevent sewer connection without notice to the user.

(Ord. of 4-18-83, § 410; Ord. No. CC-2011-05, 8-1-11)

- **Sec. 11-65. - Same—Reconnection without authority.**

It shall be unlawful for any user to reconnect water or sewer service when the service has been disconnected for noncompliance with this article, or any other reason, until specifically approved by the approving authority. Such approval shall be contingent upon satisfaction of all requirements of this article, including, but not limited to, payment of all penalties, charges, claims, damages, judgments, and costs incident thereto.

(Ord. of 4-18-83, § 411; Ord. No. CC-2011-05, 8-1-11)

- **Sec. 11-66. - Same—Unlawful.**

It shall be unlawful for any user to tie to the sewer system without first making the application, paying the tap fee, and receiving approval.

(Ord. of 4-18-83, § 412)

- **Sec. 11-67. - Unlawful discharge onto surfaces, waters, etc.**

In no event shall any user be allowed to discharge or cause to be discharged any domestic sewage or industrial waste to the ground surface, stream, watercourse, ditch, lake, other body of surface water, storm sewers, or storm drains.

(Ord. of 4-18-83, § 413)

- **Secs. 11-68, 11-69. - Reserved.**

Chapter 11

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DIVISION 1. - IN GENERAL

Sec. 11-151. – Title; purpose; authority; jurisdiction.

(a) *Title.* This article may be cited as the Stormwater Management Ordinance.

(b) *Purpose.*

- (1) In order to protect the general health, safety and welfare of the people of the City of Clemson, and to protect the natural assets and resources of the city for posterity, this article is enacted to protect the lands and waters from the effects of excessive soil erosion and sedimentation, to reduce siltation of streams and lakes, to prohibit clogging of drainage channels, to reduce excessive flood damage, and to allow for the avoidance of damage to the property of adjacent landowners from flooding.
- (2) It is further the purpose of this chapter to comply with applicable federal and corresponding state stormwater discharge (NPDES) regulations (40 C.F.R. § 122.26, § 122.32, and S.C. Regulation 61-9.122.26, 61-9.122.32) developed pursuant to the Clean Water Act, and to assure the city of the authority to take any action required by it to obtain and comply with its NPDES permit(s) for stormwater discharges. Among other things, these regulations require the city to establish legal authority that authorizes or enables the city to:
 - a. Control the contribution of pollutants into and from the Clemson Small Municipal Separate Storm Sewer System ("SMS4"), including stormwater discharges associated with residential, commercial, industrial and related facilities activity, in order to achieve compliance with all applicable state NPDES permit requirements to the maximum extent practicable (MEP);
 - b. Prohibit and eliminate illicit connections and discharges to the City of Clemson SMS4;
 - c. Allow non-stormwater discharges that are considered non-significant contributors of pollutants;
 - d. Control the discharge of spills, and prohibit the dumping or disposal of materials other than stormwater to the City of Clemson SMS4, except as authorized by subpart (c) above;
 - e. Require compliance with conditions in ordinances, permits, contracts or orders;
 - f. Require installation, implementation, and maintenance of stormwater control measures for owners/operators of construction sites, new development and redevelopment;
 - g. Require continued implementation, and long-term maintenance of permanent

stormwater control measures;

- h. To receive and collect information;
 - i. Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with this ordinance or permit conditions, including the prohibition on illicit discharges to the City of Clemson SMS4;
 - j. To respond to violations and require violators to cease and desist illicit discharges or discharges in violation of any ordinance or standard and/or cleanup and abate such discharges;
 - k. Levy monetary penalties for citations and administrative fees, require recovery and remediation costs from responsible parties, and, if necessary, recover the cost of abatement actions performed by the city;
 - l. Impose civil or criminal penalties for persistent non-compliance, repeat or escalating violations, or incidents of major environmental harm; and
 - m. Control, through intergovernmental agreements, contribution of pollutants from one municipal stormwater system to another;
- (3) The application of this article and the provisions expressed herein shall be the minimum stormwater management requirements, and shall not be deemed a limitation or repeal of any other powers granted by statute. In addition, if site characteristics indicate that complying with these minimum requirements will not provide adequate designs or protection for local property or residents, it is the owner and operator's responsibility to exceed management practices, control techniques and systems, design and engineering methods, and implement or install such other programs and/or controls as may be required to meet all applicable construction quality, water quantity, and water quality regulations and requirements.
- (4) This article is to be construed to further its purpose of controlling and reducing pollutant discharges to the City of Clemson MS4 and to the waters of the state from the City of Clemson's MS4, to the maximum extent practicable to assure the obligations under its NPDES permit issued by SC DHEC as required by 33 U.S.C. § 1251, et seq. and 40 C.F.R. § 122.26.

(c) *Authority.* This article is adopted under the authority and powers granted by the South Carolina State Constitution and the General Assembly of South Carolina in S.C. Code 1976, § 48-14-10 and 26 S.C. Code, Regulations 72-300 to 72-316, and by other powers granted to local governments by the General Assembly of South Carolina, and in compliance with the requirements imposed upon the city by the National Pollutant Discharge Elimination System ("NPDES"), and all applicable state permits and regulations issued in accordance with the federal Clean Water Act 33 U.S.C. § 1251 et seq., the South Carolina Pollution Control Act § 48-1-10, and regulations promulgated thereunder.

(d) *Jurisdiction.* The provisions of this article shall apply to all lands within the jurisdiction of the city.

Sec. 11-152. - Findings.

The City Council of the City of Clemson makes the following findings:

- (a) Uncontrolled stormwater runoff may have significant, adverse impacts on the health, safety and general welfare of the city and the quality of life of its citizens, by transporting pollutants into receiving waters and by causing erosion or flooding.
- (b) The city is required by federal law (33 U.S.C. § 1342(p) and 40 C.F.R. § 122.26, § 122.32) to obtain a National Pollutant Discharge Elimination System permit from the South Carolina Department of Health and Environmental Control ("SC DHEC") for stormwater discharges from the Clemson Small Municipal Separate Storm Sewer System (SMS4). The NPDES permit requires the city to impose controls to reduce the discharge of pollutants in stormwater to the maximum extent practicable.
- (a) Additionally, certain facilities that discharge stormwater associated with an industrial activity, including land-disturbing activities, are required to obtain NPDES permits. Also, The South Carolina Stormwater Management and Sediment Reduction Act (S.C. Code §§ 48-14-10 et seq.) requires a state permit for certain land-disturbing activities.
- (b) The first phase of the city's Stormwater Management Utility Study has been conducted, the "NPDES Phase II SMS4 Permit Analysis," dated August 2012, which was prepared by the Engineering Department for the Mayor and Council, and the same is valid and insightful and relevant to the Stormwater Management Utility created herein, and further the problems, goals, program priorities, funding opportunities, and other findings therein are adopted herein.
- (c) Given the problems, needs, goals, program priorities, and funding opportunities identified in the engineering and financing analysis, it is appropriate to authorize the formation of an organizational and accounting entity dedicated specifically to the management, maintenance, protection, control, regulation, use, and enhancement of stormwater systems in the city in concert with other water resource management programs.
- (d) Every parcel of real property in the city either uses or benefits from the stormwater management system and the improvement of existing facilities and construction of additional facilities in the system will directly or indirectly benefit the owners of all real property. Stormwater management is applicable and needed throughout the corporate limits of the city. While specific service and facility demands may differ from area to area at any given point in time, a stormwater management service area encompassing all lands and water bodies within the corporate limits of the city is consistent with the present and future needs of the community.
- (e) The management of stormwater runoff and sediment is necessary to reduce pollution, siltation, sedimentation, local flooding and stream channel erosion, all of which impact adversely on land and water resources and the health, safety, property and welfare of the residents of the city.

- (f) The city maintains a system of stormwater management facilities, including but not limited to, inlets, conduits, manholes, channels, ditches, drainage easements, infiltration facilities, and other components which have been developed over many years, as well as natural waterways. The future usefulness of the existing stormwater systems owned and operated by the city, and of additions and improvements thereto, rests on the ability of the city to effectively manage, protect, control, regulate, use, and enhance stormwater systems and facilities in the city in concert with the management of other water resources in the city. In order to do so, the city must have adequate and stable funding for its stormwater management program's operating and capital investment needs.
- (g) The stormwater management facilities and components of the city need to be regularly maintained, rehabilitated, upgraded or expanded, and additional stormwater management facilities and measures need to be installed throughout the city.
- (h) There is no comprehensive mapping system or base line data to assist in analysis, design and/or development of comprehensive maintenance and retrofit programs, and there is no long-term comprehensive drainage infrastructure maintenance program/plan in the city.
- (i) There are limited resources (equipment, manpower, funds) in the city to address problems comprehensively and within a defined time frame. These resources must be enhanced to address stormwater management issues across the city.
- (j) In the city, current and anticipated growth will contribute to the need for improvements in, and maintenance of, the municipal separate storm sewer system.
- (k) The city needs to upgrade its capability to maintain existing and future stormwater management facilities and measures, including preventive capital improvements to reduce incidence of localized flooding conditions that may be identified.
- (l) The city council finds, concludes and determines that a utility provides the most practical and appropriate means of properly delivering and funding stormwater management services in the city.
- (m) The city is a community comprised of citizens with a wide range of incomes with varying means to afford government services.
- (n) An equitable approach to funding stormwater management services and facilities can be provided by adopting a schedule of service charges for all properties within the city that is related to costs associated with the stormwater management services within the city. The schedule of service charges can be augmented by other funding sources as may be determined by city council.
- (o) The extent of use of the stormwater management system by each classification of real property is dependent on a variety of factors that influence runoff, such as land use, topography, intensity of development, amount of impervious surface, and location in a particular watershed or basin.

- (p) Property owners and users should finance the stormwater management system to the extent they contribute to the need for the system and to the extent they benefit from the system, and charges therefor should bear a reasonable relationship to the cost of the service, and every effort should be made to fairly and reasonably spread the cost of the system to all property owners and users.
- (q) In general, two methods for determining rates/fees are widely used: impervious area method and intensity of development method. Both rate structures attempt to provide a fair, equitable and cost-effective method of financing the utility. The city has evaluated the two methods for determining rate structures and has decided to use a modified version of the Intensity of Development Method as detailed in this chapter, and believes this decision to be in the best interests of the community and environment.
- (r) It is in the best interests of the citizens of this city and, most specifically, the owners of real property, that a Stormwater Management Utility with fees and classifications thereunder be established by ordinance and implemented as part of the city's utility enterprise system as authorized by S.C. Code §§ 48-14-10 - 48-14-150, § 5-7-30, and other relevant laws and regulations of the state.

Sec. 11-153. - Definitions.

(a) *Rules of language and interpretation.*

(1) The word "shall" is mandatory; the word "may" is permissive.

(2) The particular shall control the general.

(3) Words used in present tense shall include the future, and words used in the singular include the plural, and plural the singular, unless the context clearly indicates the contrary.

(b) For the purpose of this chapter, definitions contained in S.C. Regulation 61-9.122.2 are incorporated herein by reference. Additional terms, phrases and words shall have the meaning given below.

(c) *Definitions.* The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Adverse impact means a significant negative impact to land, water and associated resources resulting from a land disturbing activity. The negative impact includes increased risk of flooding, degradation of water quality, increased sedimentation, reduced groundwater recharge, negative impacts on aquatic organisms, negative impacts on wildlife and other resources, and threatened public health.

Appeals and hearing board means the building board of appeals, as established by chapter 5 of this Code.

Applicant means a person, firm, or governmental agency who executes the necessary forms to obtain approval or a permit for a land disturbing activity.

Appropriate plan approval agency means the City of Clemson.

As-built plans or record documents means a set of engineering or site drawings that delineate the specific permitted stormwater management facility as actually constructed.

Base Rate means the annual stormwater management fee charged per ERU (equivalent residential unit), which rate shall be set by resolution of the Clemson City Council.

Best management practices (BMPs) means schedules of activities, prohibitions of practices, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

Best Management Practices Manual or BMP Manual means the most recent SC DHEC Stormwater BMP Handbook.

Certified construction inspector means a person with the responsibility for conducting inspections during construction and maintenance inspections after the land disturbing activity is completed as certified by the commission.

Certified plan reviewer means a person with the responsibility for reviewing stormwater management and sediment control plans for an appropriate plan approval agency as certified by the commission.

City means Clemson, South Carolina.

City Council means the elected officials of Clemson, South Carolina.

City Stormwater System is defined as being a Municipal Separate Storm Sewer.

Clean Water Act means the Federal Water Pollution Control Act, as amended, codified at 33 U.S.C. §§ 1251 et seq.

Commercial Property means developed property that is not Single-Family Residential Property or Multi-Family Residential Property, to include but not be limited to Mixed Use Property, Multifamily Property, parking lots and properties used for office, retail, industrial, recreational, institutional, cultural, accommodation and assembly purposes.

Commission means the South Carolina Land Resources Conservation Commission.

Conservation district means any soil and water conservation district created pursuant to S.C. Code 1976, § 48-9-10 et seq.

Construction activity means any land clearing, grading, and excavation.

Designated watershed means a watershed designated by a local government and approved by the commission, Department of Health and Environmental Control and the South Carolina Water Resources Commission and identified as having an existing or potential stormwater, sediment control, or nonpoint source pollution problem.

Design Manual means the City of Clemson Stormwater Design Manual which includes, but is not limited to provisions for reviewing and approving stormwater management plans, design requirements for such plans and land-disturbing activities, and operational and maintenance requirements for stormwater management facilities and measures.

Design storm means a Soil Conservation Service Type II, 24-hour-duration storm, with a specified return interval or as otherwise specified by the City Engineer.

Detention structure means a permanent stormwater management structure whose primary purpose is to temporarily store stormwater runoff and release the stored runoff at controlled rates.

Developed Property means real property which has been altered from its natural state by the addition of any improvements such as buildings, structures, or other impervious surface area. For new construction, property shall be considered developed property upon final approval of site improvements by the City Engineer.

Developer means a person undertaking or for whose benefit activities covered by these regulations are commenced and/or carried out.

Development intensity factor (DIF) means the ratio of a developed property's runoff coefficient (C) to the standard residential unit's runoff coefficient (C). A development intensity factor (DIF) shall be determined by calculating an average runoff coefficient (C) from several similar uses within each classification. Dividing the calculated "C" value by the ERU "C" value of 0.36 derives the DIF.

Development or developed land means any of the following actions undertaken by any person, including, without limitation, any public or private individual or entity:

- (a) Division of a lot, tract or parcels, or other divisions by plat or deed;
- (b) The construction, installation or alteration of a structure, impervious surface or drainage facility;
- (c) Clearing, scraping, grubbing or otherwise significantly disturbing the soil, vegetation, mud, sand or rock of a site; or
- (d) Adding, removing, exposing, excavating, leveling, grading, digging, burrowing, dumping, piling, dredging or otherwise disturbing the soil, vegetation, mud, sand or rock of a site.

District means any soil and water conservation district created pursuant to Chapter 9, Title 48, S.C. Code of Laws.

Drainage area means that area contributing runoff to a single point.

Drainage plan means a set of drawings, other documents, and supporting calculations, submitted by a person as a prerequisite to obtaining a permit to undertake a land disturbing activity, which contains all of the information and specifications required by an implementing agency.

Dwelling unit means a unit providing complete, independent living facilities for one family, including permanent provisions for living, sleeping, eating, cooking and sanitation.

Easement means a grant or reservation by the owner of land for the use of such land by others for a specific purpose or purposes, and which must be included in the conveyance of land affected by such easement.

Equivalent residential unit (ERU) means an equivalency unit defined to be equal one single-family residence.

Erosion means the wearing away of land surface by the action of wind, water, gravity, ice, or any combination of those forces.

Erosion and sediment control means the control of solid material, both mineral and organic, during a land disturbing activity to prevent its transport out of the disturbed area by means of air, water, gravity, or ice.

Excess stormwater runoff means that portion of stormwater which exceeds the safe storm drainage capacity of storm sewer or natural drainage channel serving a specific watershed.

Exemption means those land disturbing activities that are not subject to the sediment and stormwater requirements contained in these regulations.

Grading means excavating, filling (including hydraulic fill) or stockpiling of earth material, or any combination thereof, including the land in its excavated or filled condition.

Fee means the annual amount charged to a utility customer, owner, or occupant of real property for the services provided by the Stormwater Utility.

Hazardous Materials means any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or

the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Hydrologic response means the manner and means whereby stormwater collects, remains, infiltrates, and/or is conveyed from a property. It is dependent on several factors including, but not limited to, the presence of impervious area, the size, shape, topographic, vegetative, and geologic conditions of a property, antecedent moisture conditions, and groundwater conditions on a property.

Impervious surface means those areas which prevent or impede the infiltration of stormwater into the soil as it entered in natural conditions prior to development. Common impervious areas include, but are not limited to, rooftops, sidewalks, walkways, patio areas, driveways, parking lots, storage areas, compacted gravel and solid surfaces, awnings and other fabric or plastic coverings, and other surfaces which prevent or impede the natural infiltration of stormwater runoff which existed prior to development.

Illicit Connection means any man-made conveyance connecting an illicit discharge directly to a small municipal separate storm sewer (SMS4).

Illicit discharge means any discharge to the City Stormwater System that is not composed entirely of stormwater, except:

(a) Discharges pursuant to an NPDES permit (other than the NPDES for the city); and

(b) Discharges resulting from firefighting activities. .

Imminent and substantial threat means a threat that is entering or has entered the stormwater drainage system. The threat must be of such a nature that its presence and quantity would cause chronic health risks and/or pose a safety hazard to human health or the environment, if contact were to be made between the public and the threat. The threat may be comprised of, but not limited to, chemicals, radioactive materials, or materials in such quantity as to create such risk. If the substance is identifiable, the material safety data sheet should be consulted to further determine the level of threat posed.

Impervious surface area means a surface which is compacted or covered with material that is resistant to infiltration by water, including, but not limited to, most conventional surfaced streets, roofs, sidewalks, parking lots, and other similar structures.

Implementing agency means the City of Clemson.

Improper disposal means any disposals other than through an illicit connection that result in an illicit discharge, including but not limited to, the disposal of used oil and toxic materials resulting from the improper management of such substances.

Infiltration means the passage or movement of water through the soil profile.

Land disturbing activity means any use of the land by any person that results in a change in the natural cover or topography that may cause erosion and contribute to sediment and alter the quality and quantity of stormwater runoff.

Local government means any county, municipality, or any combination of counties or municipalities, acting through a joint program pursuant to the provisions of this article.

Maintenance means any action necessary to preserve stormwater management facilities in proper working condition, in order to serve the intended purposes set forth in this chapter and to prevent structural failure of such facilities.

Maximum Extent Practicable (MEP) means the technologically-based discharge standard for the SMS4 to reduce pollutants in stormwater discharge as established by the CWA § 402(p).

Mixed Use Property means developed property that includes a building or buildings containing both residential and commercial uses.

MS4 or SMS4 means Municipal Separate Storm Sewer System or Small Municipal Separate Storm Sewer System, comprised solely of those portions of the stormwater system that are owned and operated by the city.

Municipal Separate Storm Sewer means the conveyance or system of conveyances (including roads with drainage systems, highways, rights-of-way, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains, detention ponds, and other stormwater facilities) that is:

- (a) Owned or operated by the city;
- (b) Designed or used for collecting or conveying stormwater;
- (c) Not a combined sewer system; and
- (d) Not part of a publicly owned treatment works (POTW).

Multi-family development means a building or group of buildings containing four or more individual dwelling units with separate cooking and toilet facilities for each unit

National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit means a permit issued by EPA (or by a State under authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

Natural waterways means waterways that are part of the natural topography. They usually maintain a continuous or seasonal flow during the year and are characterized as being irregular in cross section with a meandering course. Construction channels, such as drainage ditches, shall not be considered natural waterways.

Nonpoint source pollution means pollution contained in stormwater runoff from ill-defined, diffuse sources.

Non-Stormwater Discharge means any discharge to the storm drain system that is not composed entirely of storm water.

NPDES means National Pollutant Discharge Elimination System. See "Clean Water Act."

100-year frequency storm means a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in 100 years. It also may be expressed as an exceedance probability with a one percent chance of being equaled or exceeded in any given year.

Operator 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 it has the authority to prepare or modify such plans and specifications; 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., it is authorized to direct workers at a site to carry out activities required by the SWPPP or to comply with other permit conditions). This definition is provided to inform permittees of the EPA's interpretation of how the regulatory definitions of

“owner” or “operator” and “facility” or “activity” are applied to discharges of stormwater associated with construction activity.

Outfall means the point where the City Stormwater System discharges to waters of the State and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances which connect segments of the same stream or other waters of the State and are used to convey waters of the State.

Person means any state or federal agency, individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, municipality or other political subdivision of this state, any interstate body, or any other legal entity.

Person responsible for the land disturbing activity means:

- (a) The person who has or represents having financial or operational control over the land disturbing activity; and/or
- (b) The landowner or person in possession or control of the land who directly or indirectly allowed the land disturbing activity or has benefitted from it or who has failed to comply with any provision of this article, these regulations, or any order or local ordinance adopted pursuant to this article as imposes a duty upon him.

Pollutant means any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. This term does not mean (A) “sewage from vessels or a discharge incidental to the normal operation of a vessel of the Armed Forces” within the meaning of section 1322 of this title; or (B) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if such State determines that such injection or disposal will not result in the degradation of ground or surface water resources.

Post-development means the conditions which exist following the completion of the land disturbing activity in terms of topography, vegetation, land use and rate, volume or direction of stormwater runoff.

Pre-development means the conditions which existed prior to the initiation of the land disturbing activity in terms of topography, vegetation, land use and rate, volume or direction of stormwater runoff.

Receiving waters means the waters into which the City Stormwater System outfalls flow, and which are located within the jurisdictional boundaries of the city, including, without limitation, the lakes, rivers, streams, ponds, wetlands and groundwater of the city.

Redevelopment means a land disturbing activity that alters the current use of the land, but does not necessarily alter the pre-development runoff characteristics.

Regulation means any regulation, rule, or requirement prepared by the city and adopted by the City Council pursuant to this article.

Responsible personnel means any foreman, superintendent, or similar individual who is the on-site person in charge of land disturbing activities.

Retention structure means a permanent structure whose primary purpose is to permanently store a given volume of stormwater runoff. Release of the given volume is by infiltration and/or evaporation.

Revenues means all fees, assessments or other income received by the Stormwater Utility, including but not limited to, amounts received from the investment or deposit of monies in any fund or account and all amounts received as gifts, donations and the proceeds from the sale of bonds to finance the stormwater management program.

Runoff coefficient (C) means the proportion of rainfall volume that runs off an area, also known as the "C" factor.

Sediment means solid particulate matter, both mineral and organic, that has been or is being transported by water, air, ice, or gravity from its site of origin.

Single-Family Residential Property means any property designated as a single parcel on the Pickens county tax maps, that contains only one dwelling unit, including townhouses.

Stabilization means the installation of vegetative or structural measures to establish a soil cover to reduce soil erosion by stormwater runoff, wind, ice and gravity.

Stop work order means an order directing the person responsible for the land disturbing activity to cease and desist all or any portion of the work which violates the provisions of this article.

Stormwater means any storm water runoff, snow melt runoff and surface runoff and drainage.

Stormwater channel means a natural or manmade open watercourse with definite bed and banks which periodically or continuously contains moving water, or which forms a connecting link between two bodies of water.

Stormwater management means:

- (a) Quantitative control, a system of vegetative or structural measures, or both, that control the increased volume and rate of stormwater runoff caused by manmade changes to the land;
- (b) Qualitative control, a system of vegetative, structural, or other measures that reduce or eliminate pollutants that might otherwise be carried by stormwater runoff.

Stormwater Management Program or SWMP refers to a comprehensive stormwater management program to manage the quality of stormwater discharged from the City Stormwater System.

Stormwater management service charges mean the periodic rate, fee or charge applicable to a parcel of developed land. The charge shall be reflective of the service provided by the city stormwater utility. Service charges are based on measurable parameters that influence the stormwater utility's cost of providing services and facilities, with the most important factor being the amount of impervious area on each parcel. The use of impervious areas as a service charge rate parameter shall not preclude the use of other parameters, or the grouping of properties having similar characteristics through the use of ranges or rounding up or down to a consistent numerical interval, or the use of flat-rate charges for one (1) or more classes of similarly-situated properties whose impact on the stormwater utility's cost of providing stormwater management services and facilities is relatively consistent. Stormwater service charges may also include special charges to the owners of particular properties for services or facilities uniquely related to stormwater management of that property, including, but not limited to, charges for site and development plan review, inspection of development projects and on-site stormwater control systems, stormwater system connections, and enhanced levels of stormwater services above those normally provided by the city.

Stormwater management system means any system that addresses the issues of drainage management (flooding) and environmental quality (pollution, erosion and sedimentation) of receiving rivers, streams, creeks, lakes, ponds, and reservoirs through improvements, maintenance, regulation and funding of plants,

works, instrumentalities and properties used or useful in the collection, retention, detention, and treatment of stormwater drainage.

Stormwater runoff means direct response of a watershed to precipitation, and includes the surface and subsurface runoff that enters a ditch, stream, storm sewer or other concentrated flow during and following the precipitation.

Stormwater runoff release rate means the rate at which stormwater is released from upstream to downstream land.

Stormwater utility means an administrative organization that has been created for the purposes of planning, designing, constructing, and maintaining stormwater management, sediment control and flood control programs and projects.

Subdivision means all divisions of a tract or parcel of land into two or more lots, building sites, or other divisions for the purpose, whether immediate or future, of sale, lease or building development and includes all division of land involving a new street or a change in existing streets and includes re-subdivision which would involve the further division or relocation of lot lines of any lot or lots within a subdivision previously made and approved, or recorded according to law; or, the alteration of any streets according to law, and includes combinations of lots of record; however, the following exceptions are included within this definition only for the purpose of requiring that the Planning and Codes Administration Department be informed and a record of the subdivision:

- A. The combination or recombination of portions of previously platted lots where the total number of lots is not increased and the resultant lots are equal to the standards of the governing authority;
- B. The division of land into parcels of five acres or more where no new street is involved and plats of these exceptions must be received as public record by the Planning and Codes Administration Department which shall indicate approval on the plats; and
- C. The combination or recombination of entire lots of record where no new street or change in existing streets is involved.

Subdivision exceptions may be treated as subdivisions, if it is determined that a series of subdivision exceptions within an original parcel or group of related parcels are being submitted to avoid review requirements for subdivisions.

Ten-year frequency storm means a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in ten years. It may also be expressed as an exceedance probability with a ten percent chance of being equaled or exceeded in any given year.

Twenty-five-year frequency storm means a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in 25 years. It also may be expressed as an exceedance probability with a four percent chance of being equaled or exceeded in any given year.

Two-year frequency storm means a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in two years. It may also be expressed as an exceedance probability with a 50 percent chance of being equaled or exceeded in any given year.

Undeveloped Property means real property which has not been altered from its natural state by the addition of any improvements such as buildings, structures or other impervious surface area, or which has less than 50% of the equivalent residential unit of impervious surface area, to include golf courses and parks.

Utility Customer means the person or entity who is in possession of and has beneficial use of the property and such person or entity shall receive the billing for the Stormwater Utility. Upon failure of such party to make payments of the fee, the owner of the property shall have the ultimate responsibility for the fee.

Variance means the modification of the minimum sediment and stormwater management requirements for specific circumstances where strict adherence to the requirements would result in unnecessary hardship and not fulfill the intent of these regulations.

Waiver means the relinquishment from sediment and stormwater management requirements by the appropriate plan approval authority for a specific land disturbing activity on a case-by-case review basis.

Water quality means those characteristics of stormwater runoff from a land disturbing activity that relate to the physical, chemical, biological, or radiological integrity of water.

Water quantity means those characteristics of stormwater runoff that relate to the rate and volume of the stormwater runoff to downstream areas resulting from land disturbing activities.

Watershed means the drainage area contributing stormwater runoff to a single point.

Watershed master plan means a plan for a designated watershed that analyzes the impact of existing and future land uses and land disturbing activities in the entire watershed and includes strategies to reduce nonpoint source pollution, to manage stormwater runoff, and control flooding. The plan must be developed for the entire watershed, regardless of political boundaries, and must include appropriate physical, institutional, economic and administrative data needed to justify the plan.

(Ord. No. CC-97-001, 4-7-97)

Cross reference— Definitions generally, § 1-2.

Sec. 11-154. - Regulation of land-disturbing activity.

The Council hereby establishes by ordinance a system regulating land-disturbing activities, including, but not limited to, provisions for reviewing and approving stormwater management plans, creating design requirements for such plans and land-disturbing activities, and providing operational and maintenance requirements for stormwater management facilities and measures.

Sec. 11-155. – Incorporation by reference.

For the purpose of this article and as required by SC DHEC under the MS4 program, the most recent version of the following documents are incorporated by reference:

- (a) SC DHEC NPDES General Permit for Stormwater Discharges from Large and Small Construction Activities, SCR100000;
- (b) SC DHEC Regulation 72-300 et seq., Standards for stormwater management and sediment reduction.
- (c) S.C. DHEC Stormwater BMP Handbook.

Sec. 11-156. - Other permits.

An applicant shall comply with the requirements set forth in other applicable ordinances with respect to the submission and approval of preliminary and final subdivision plats, improvement plans, building and zoning permits, inspections, appeals and similar, along with those set forth in this article and as may be required by state statutes and the regulations of any department of the State of South Carolina.

Sec. 11-157. - Municipal liability.

It is the intent of this Code to protect the public health, safety and general welfare of all properties and persons in general, but not to create any special duty or relationship with any individual person or to any specified property within or without the boundaries of the city. The city expressly reserves the right to assert all available immunities and defenses in any action seeking to impose monetary damages or injunctive relief upon the city, its officers, employees and agents arising out of any alleged failure or breach of duty or relationship as may now exist or hereafter be created. To the extent any permit, plan approval, inspection or similar act is required by the city as a condition precedent to any activity by or upon property not owned by the city, pursuant to this or any other regulatory ordinance, regulation or rule of the city or under federal or state law, the issuance of such permit, plan approval, or inspection shall not be deemed to constitute a warranty, express or implied, nor shall afford the basis for any action, including any action based on failure to permit or negligent issuance of a permit, seeking the imposition of money damages or injunctive relief against the city, its officers, employees or agents.

Nothing in this chapter, and no action or failure to act under this chapter shall or may be construed to:

- (a) Impose any liability on the city, or its departments, agencies, officers or employees for the recovery of damages; or
- (b) Relieve any person engaged in a land-disturbing activity of duties, obligations, responsibilities, or liabilities arising from or incident to operations associated with such activity or imposed by the provisions of this chapter or the laws and regulations pursuant to which it was adopted.

Sec. 11-158. - Severability

The provisions of this article shall be deemed separable and the invalidity of any portion of this article shall not affect the validity of the remainder.

Sec. 11-159. - Relationship with other laws, regulations, and ordinances.

Whenever the provisions of this article impose more restrictive standards than are required in or under any other law, regulation, or ordinance, the requirements contained in this article shall prevail. Whenever the provisions of any other law, regulation, or ordinance require more restrictive standards than are required in this article, the requirements of such law, regulation, or ordinance shall prevail.

DIVISION 2. – STORMWATER UTILITY

Sec. 11-165. - Establishment of a stormwater utility.

The Council hereby establishes a Stormwater Management Utility (also called "Utility" in this chapter) to carry out the purposes, functions and responsibilities herein set forth. The governing body of the Utility shall be the Mayor and Council. The City Administrator shall administer the Utility under the Engineering Department. The Utility shall have the powers and duties set out in division (b) of this section, which powers are not necessarily exclusive to the Utility.

Sec. 11-166. - Powers and duties

The stormwater utility shall have the following powers and duties, which powers and duties are not necessarily exclusive to the stormwater utility:

- (a) Stormwater management planning and preparation of comprehensive watershed master plans for stormwater management.
- (b) Regular inspections and maintenance of public stormwater management facilities and measures for the construction thereof, as well as regular inspections of private stormwater management facilities.
- (c) Maintenance and improvements of stormwater management facilities that have been accepted by the city for purposes of stormwater management.
- (d) Plan review and inspection of sediment control and stormwater management plans, measures and practices.
- (e) Retrofitting designated watersheds to reduce existing flooding problems or to improve water quality.
- (f) Acquisition of interests in land, including, but not limited to, easements.
- (g) Design and construction of stormwater management facilities and measures and acquisition of equipment.
- (h) Water quantity and water quality management, including monitoring and surveillance.
- (i) Any and all powers and duties delegated or granted as a local government implementing agency under the laws and regulations of the state and the ordinances of the city.

Sec. 11-167. - Scope of responsibility for the city drainage system.

The city drainage system consists of all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage ways, channels, ditches, swales, storm sewers, culverts, inlets, catch basins, pipes, head walls and other structures, natural or man-made, within the political boundaries of the city which control and/or convey stormwater through which the city intentionally diverts surface waters from its public streets and properties. The city owns or has legal access for purposes of operation, maintenance and improvements to those segments of this system

which:

- (a) Are located within public streets, rights-of-way, and easements;
- (b) Are subject to easements, rights-of-entry, rights-of-access, rights-of-use, or other permanent provisions for adequate access for operation, maintenance, and/or improvement of systems and facilities; or
- (c) Are located on public lands to which the city has adequate access for operation, maintenance, and/or improvement of systems and facilities.

Operation and maintenance of stormwater systems and facilities which are located on private property or public property not owned by the city and for which there has been no public dedication of such systems and facilities for operation, maintenance, and/or improvement of the systems and facilities shall be and remain the legal responsibility of the property owner, except as that responsibility may be otherwise affected by the laws of the state and the United States of America.

Sec. 11-168. - Establishment of a stormwater management enterprise fund.

A stormwater management enterprise fund shall be established in the city budget and accounting system for the purpose of dedicating and protecting all funding applicable to the purposes and responsibilities of the utility, including but not limited to rentals, rates, charges, fees, and licenses as may be established by the city council. Any revenues and receipts of the stormwater utility shall be placed in the stormwater management enterprise fund and all expenses of the utility shall be paid from the stormwater management enterprise fund, except that other revenues, receipts, and resources not accounted for in the stormwater management enterprise fund may be applied to stormwater management operations and capital investments as deemed appropriate by the city council, upon recommendation of the city administrator.

Sec. 11-169. - General financing policy.

It shall be the policy of the city that funding for the stormwater utility be equitably derived through methods which have a demonstrable relationship to the varied demands and impacts imposed on the stormwater systems and programs and/or the level of service provided as a result of the provision of stormwater services and facilities. Service charges for stormwater management shall be fair and reasonable and shall bear a substantial relationship to the cost of providing services and facilities. The cost of stormwater services and facilities may include operating, capital investment, and reserve expenses, and may consider stormwater quality as well as stormwater quantity management requirements. Similarly situated properties shall be charged similar rentals, rates, charges, fees, or licenses. Service charge rates shall be designed to be consistent and coordinated with the use of other funding methods employed for stormwater management by the city, whether within or outside the stormwater utility, including but not limited to plan review and inspection fees, special fees for services, fees in-lieu of regulatory requirements, impact fees, system development charges, and special assessments. To the extent practicable, credits against service charges and/or other methods of funding stormwater management may be provided for on-site stormwater control systems and activities constructed, operated, maintained and performed to the city's standards by private property owners.

Sec. 11-170. - Investment and reinvestment of funds and borrowing.

Funds generated for the Stormwater Management Utility from fees, bond issues, other borrowing, and other sources shall be utilized only for those purposes for which the utility has been established, including but not

limited to: planning; acquisition of interests in land including easements; design and construction of facilities; maintenance of the stormwater system; billing and administration; and water quantity and water quality management, including monitoring, surveillance, private maintenance inspection, construction inspection; efforts taken to comply with the NPDES permit issued to the city's MS4, and other activities which are reasonably required. Such funds shall be invested and reinvested pursuant to the same procedures and practices established by the city for investment and reinvestment of funds. The Council may use any form of borrowing authorized by the laws of the state to fund capital acquisitions or expenditures for the Stormwater Management Utility.

Sec. 11-171. - Determination and modification of stormwater management service charges.

In accordance with § 48-14-120 of the Code of Laws of South Carolina, the city council shall determine and modify from time to time the stormwater management service charges. In setting or modifying such rates it shall be the objective of the council to establish rates, fees and charges that are fair and reasonable, reflect the value of stormwater management services and facilities to those properties who benefit therefrom and, which together with any other sources of revenue that may be made available to the stormwater utility, will be sufficient to meet the cost of budgeted programs, services and facilities, including, but not limited to, the payment of principal and interest on revenue bond obligations incurred for construction and improvements to the stormwater system.

The Council shall consider, among other things, the following criteria in establishing fees:

- (a) The fee system must be reasonable and equitable so that property owners and users pay to the extent they contribute to the need for and benefit from the Utility, and the fees must bear a substantial relationship to the cost of the service. The fees shall be apportioned with approximate equality and upon a reasonable basis of equality with due regard for the benefits conferred. .
- (b) Cost analysis, construction, maintenance, and the overall operation of the stormwater system should be borne equally by all classifications of property owners in the city, in that all are served by an improved and well-maintained system.
- (c) Any fee established should be in an amount that is reasonable and equitable.
- (d) The components of the calculations used to establish fees may include, but shall not be limited to, the following cost factors:
 - (1) Stormwater management planning and preparation of comprehensive watershed master plans for stormwater management;
 - (2) Regular inspections of public and private stormwater management facilities and measures and the construction thereof;
 - (3) Maintenance and improvement of stormwater management facilities that have been accepted by the city for that purpose;
 - (4) Plan review and inspection of stormwater management plans, measures, and practices;

- (5) Retrofitting designated watersheds to reduce existing flooding problems or to improve water quality;
 - (6) Acquisition of interests in land, including easements;
 - (7) Design and construction of stormwater management facilities and measures and acquisition of equipment;
 - (8) Administration of enforcement;
 - (9) Water quantity and water quality management, including monitoring and surveillance;
 - (10) Debt service and financing costs; And
 - (11) Efforts taken to comply with the city's NPDES MS4 permit.
- (e) The practical difficulties and limitations related to establishing, calculating, and administering such fees.
- (f) The components of the calculations used to establish fees shall be based on an equivalent residential unit (ERU), to be determined by Council with reasonable general adjustments being made for, but not limited to, the following factors:
- (1) Commercial and land uses other than single-family residential;
 - (2) Undeveloped property;
 - (3) Imperviousness of land as it relates to the intensity of development as derived from use classifications hereof; and
 - (4) Other generally accepted factors relevant to such calculations based upon the provisions of this chapter.

Sec. 11-172. - Stormwater management service charges.

- (a) Classification. For purposes of determining the fee, all properties in the city are classified as follows:
- (b) *Single-family residential properties*, includes properties zoned R-12 and R-20 and any other properties which contain only a single residence.
- (1) *Multi-family residential properties*, includes properties zoned RM-1, RM-2, RM-3, and RM-4 or other residential properties containing two or more residences on a single parcel.
 - (2) *Nonresidential developed properties*, including but not limited to the following classifications:

General Commercial; Office Commercial; Neighborhood Business; Community Business; Research, Institutional, Light-Industrial; and Residential, Light Commercial.

(3) *Mixed Use Property*, properties which contain both residential dwelling units and non-residential developments within a single structure on a single parcel of land.

(4) *Recreation facilities, parks, golf courses and appurtenances thereto*.

(5) *Undeveloped Property*.

(c) *Stormwater management service charge rate*. The stormwater management service charge per equivalent residential unit (ERU) shall be established by approval of a resolution of Clemson City Council, which may be amended in the City's annual budget ordinance.

(d) *ERU*. One commonly accepted rate unit for stormwater utilities is the equivalent residential unit (ERU). The ERU is used to relate a rate charged for a typical residential property, and this becomes the common denominator by which all other classifications of properties are evaluated. Pursuant to this chapter, an ERU is considered to be the impervious surface on an average single-family lot.

(e) *Single-family residential properties*. Single-family residential properties shall be charged the rate applicable to one (1) equivalent residential unit (ERU) for each dwelling unit regardless of the size of the parcel or the improvements.

(f) *Multi-family residential properties*. Multi-family residential properties shall be charged the rate applicable to one (1.00) equivalent residential unit (ERU) for each dwelling unit.

(g) *Nonresidential developed properties*. All developed lands not classified as single-family or multi-family residential use properties shall be classified as nonresidential developed. Nonresidential developed properties shall be charged the rate applicable to three (3.00) equivalent residential units (ERU) for each property,

(i) *Mixed use properties*.

Nonresidential tenants within a mixed use structure should be placed into the appropriate non-residential category based on the properties zoning classification. The number of ERU's used in determining a tenant's individual stormwater management service charge should be determined as follows:

Step 1 – The number of ERU's for the entire mixed use structure should be calculated in accordance with § 11-172(f) and (g).

Step 2 – Each tenant will be charged no less than three (3) ERU's.

Step 3 - Each residential tenant is assigned a fee applicable to one (1.00) ERU per dwelling unit in accordance with § 11-172(e).

(j) *Recreation facilities, parks, golf courses, and appurtenances thereto*. Recreation facilities, parks, and golf courses shall be exempt from storm water fees.

(k) *Undeveloped properties.* Undeveloped properties shall not be charged a stormwater management service charge.

Fee rates will be in effect until City Council determines a more equitable rate structure by an analysis of the properties in each rate class. This analysis shall occur by the end of the first permit cycle.

Sec. 11-173. - Exemptions and credits applicable to stormwater management service charges.

- (a) Except as provided in section 11-172(j), no public or private property shall be exempt from stormwater management service charges or receive a credit or offset against such service charges.
- (b) Undeveloped properties as defined in this chapter shall be exempt from stormwater management service charges.
- (c) Railroad rights-of-way (tracks) shall be exempt from stormwater management service charges. However, railroad stations, maintenance buildings, or other developed land used for railroad purposes shall not be exempt from stormwater management service charges.

Sec. 11-174. - Billing of stormwater management utility service charges.

The stormwater management utility service charge may be billed on a common billing statement and collected along with other city utility fees. Nonpayment may result in termination of all utility services, consisting of water, sewer, sanitation services, stormwater management, in accordance with § 11-2 and §11-15 of this Code.

DIVISION 3. - ORGANIZATION AND COORDINATION

Sec. 11-181. – Administration of regulations.

- (a) The City Council may, at its discretion, amend or change this chapter or adopt additional regulations or resolutions to implement this chapter, comply with the NPDES permit, implement the Stormwater Management Program (“SWMP”), or to otherwise further the goal of reducing the discharge of pollutants from the City of Clemson’s SMS4 to the maximum extent practicable (MEP).

- (b) The SWMP developed by the City of Clemson to implement the purposes of this Ordinance shall serve as the basis for directing the City’s efforts to control stormwater. The SWMP shall be developed one year from the effective date of the City’s written certificate of coverage for SCR030000 from SCDHEC. The SWM, once developed, shall be adopted for the life of the City’s Stormwater NPDES permit as the official operational plan. The SWMP plan shall be viewed as an extension of this Ordinance and is hereby given identical authority to see that its requirements are both complied with and enforced.

- (c) The City Engineer, or his designee, shall be responsible for day-to-day coordination, implementation and enforcement of this chapter and the SWMP. This includes, but is not limited to: the SWMP’s monitoring program and the SWMP’s stormwater management programs for commercial and residential activities, construction site runoff, post-construction run-off control, and illicit discharges and improper disposal. The City Engineer shall be primarily responsible for activities related to design and construction, and his designee shall be primarily responsible for activities related to monitoring and inspection. Without limitation of the foregoing, the City Engineer and his designee have the following specific powers and duties:
 - (1) To issue any permit, certification or license that may be required by the SWMP;
 - (2) To deny a facility connection to the SMS4, if state, federal, or stormwater ordinances and regulations are not met.
 - (3) To approve BMP plans, and to require as a condition of such approvals, structural or nonstructural controls, practices, devices or operating procedures required under the SWMP.
 - (4) To require performance bonds of any person to secure that person’s compliance with any BMP plan, permit, certificate, license or authorization issued or approved by the City Engineer or Stormwater Program Manager pursuant to the SWMP.
 - (5) To take actions necessary to comply with all federal and state regulatory requirements, promulgated or imposed pursuant to the Clean Water Act and the South Carolina Stormwater Management and Sediment Reduction Act, applicable to the management of stormwater discharges to or from the City of Clemson SMS4.
 - (6) To conduct all activities necessary to carry out the stormwater management program and other

requirements included in the city NPDES permit, the SWMP and this chapter and to pursue the necessary means and resources required to properly fulfill this responsibility.

- (7) In compliance with the Clemson Code of Ordinances and procurement policies, to enter into agreements with other governmental entities or private persons or entities to provide or procure services to conduct and carry out stormwater management activities, provided proper administrative and Council approval processes are followed.
- (8) To maintain the stormwater system consistent with the provisions of the city's NPDES permit, the SWMP and this chapter.
- (9) To direct, review and recommend for approval by City Council, the stormwater management operating budget.
- (10) To direct, review and recommend for approval by City Council necessary changes to the existing Stormwater Management Program.
- (11) To issue stop work and other orders necessary to insure compliance with this article.

DIVISION 4. – ILLICIT DISCHARGES

Sec. 11-191. – Illicit connections and illicit discharges.

No person shall connect any pipe, open channel, or any other conveyance system that discharges anything, except stormwater or unpolluted water which is approved by the City Engineer, into the SMS4.

No person shall continue the operation of any such illicit connection regardless of whether the connection was permissible when constructed. Improper connections in violation of this Ordinance must be disconnected and redirected, if necessary, to the satisfaction of the City Engineer or his designee and any other federal, state, or local agencies or departments regulating the discharge.

No person shall throw, drain, or otherwise discharge to the City's SMS4 or to cause, permit, or allow a discharge that is composed of anything except stormwater or unpolluted water which is approved by the City Engineer.

The following activities are exempt from the provision of this section and are not considered an illicit discharge:

- (a) Unpolluted industrial cooling water, but only under the authorization and direction of the Engineer or his designee and appropriate NPDES permit.
- (b) Water line flushing performed or required by a government agency, diverted stream flows, rising ground waters, and unpolluted pumped ground waters, and unpolluted ground water infiltration.
- (c) Discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, non-commercial car washing, dechlorinated (less than 0.01 parts per million chlorine) swimming pool discharges, flows from riparian habitats and wetlands, and street wash water.
- (d) Discharges or flows from firefighting activities.
- (e) Other similar occasional incidental non-stormwater discharges.

The City Engineer or designated representative may require controls for, or exempt from, the prohibitions for occasional incidental non-stormwater discharges provided that they are not a significant source of pollution.

Sec. 11-192. - Detection of illicit connections and improper disposal.

The City Engineer shall develop procedures for detecting, tracking, and eliminating illicit discharges and improper disposals to the City of Clemson SMS4, including the adoption of a program to screen illicit discharges, identify their source or sources, perform inspections, issue corrective actions to abate and eliminate illicit discharges and levy fines if not removed.

The City Engineer shall take appropriate steps to detect and eliminate improper disposal. These steps may include programs to screen for disposal, programs to provide for public education and public information, inspection, levy fines, and other appropriate activities to facilitate the proper management and disposal of used oil, toxic materials, and household hazardous waste.

Sec. 11-193. Waste disposal prohibitions.

No person shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, left, or maintained, in or upon any public or private property, driveway, parking area, street, alley, sidewalk, or component of the SMS4 any refuse, rubbish, garbage, litter, pet fecal matter, or other discarded or abandoned objects, articles, and accumulations, so that the same may cause or contribute to pollution. Yard debris, including natural foliage, may be deposited in the public right of way but not in or on any stormwater conveyance structures, including inlets and gutters, but only if a collection service is available. Wastes in proper waste receptacles may be placed in the street for collection, but again only if collection by or through the City is in place. No waste or yard debris shall be placed in the street without such a collection service.

Sec. 11-194. Notification of spills.

Spills or leaks of materials which are resulting in, or may result in illegal discharges or pollutants discharging into the SMS4, shall be contained, controlled, collected, and properly disposed. All affected areas shall be restored to their pre-existing condition. The owner, operator, or other designated responsible party shall also take immediate steps to ensure no recurrence of the discharge. The owner, operator, or other designated responsible party will bear all costs of cleaning up any spills. In the event that the City of Clemson cleans up a spill, the owner, operator, or designated responsible party will be required to reimburse the City for funds used in the clean-up.

Persons in control of the polluting substances immediately prior to their release or discharge, and persons owning the property on which the substances were released or discharged, shall immediately notify the City Engineer in person, by phone or by e-mail no later than the next business day of the release or discharge, as well as making any required notifications under state and federal law. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the City Engineer within three business days of the original notice. Notification shall not relieve any person of any expenses related to the restoration, loss, damage, or any other liability which may be incurred as a result of said spill or leak, nor shall such notification relieve any person from other liability which may be imposed by state or other law. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

For facilities that operate under existing NPDES permits for Stormwater discharge, spill reporting shall be made to the permitting authority in accordance with the permit. The Engineering Division shall be provided with copies of any written notification required by the NPDES permitting authority.

Sec. 11-195. Enforcement.

Whenever the City Engineer finds that a person has violated a prohibition or failed to meet a requirement of this division, the City Engineer may order compliance by written notice violation to the responsible person. Such notice may require without limitation:

- (a) The elimination of Illicit Connections or discharges in a timeframe consistent with the procedures outlined in the SWMP;
- (b) That violating discharges, practices or operations shall cease and desist;
- (c) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property; and
- (d) The implementation of source control or treatment BMPs.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the City Engineer or a contractor will do the work and the expense thereof shall be charged to the violator.

DIVISION 5 - STORMWATER MANAGEMENT AND SEDIMENT CONTROL DESIGN PLAN REQUIREMENTS

Sec. 11-201. – Implementation

The City of Clemson shall implement this division in the entire regulated SMS4 area with eighteen months from the effective date of the City's written certificate of coverage for SCR030000 from SCDHEC

Sec. 11-202. – Permits and stormwater management and sediment control plans

Unless otherwise exempt, new development and redevelopment activities disturbing one or more acres of land, including sites smaller than one acre that are part of a Larger Common Plan of Development (LCP) that disturbs or ultimately disturbs one or more acres, are required to obtain permit coverage for their stormwater discharges by submitting a Stormwater Management and Sediment Control Plan.

Sec. 11-203. – Stormwater management and sediment control design plan requirements.

All soil erosion and sedimentation control and post construction stormwater management for new development and redevelopment design requirements shall be included in the City of Clemson Stormwater Management Design Manual. The Stormwater Management Design Manual shall include, but not be limited to:

- (a) Provisions for submitting stormwater management plans,
- (b) Applicable fees for stormwater management plan submittals,
- (c) Provisions for reviewing and approving stormwater management plans,
- (d) Design requirements for such plans and land disturbing activities,
- (e) Operational and maintenance requirements for stormwater management facilities and measures, and
- (f) Inspection requirements.

The City of Clemson Stormwater Management Design Manual will be updated as needed to ensure compliance with regulatory requirements.

The City Engineer shall require that plans and design reports be sealed by a qualified design professional and certified that the plans have been designed in accordance with this article and all other relevant and applicable sediment and stormwater laws and regulations.

The person responsible for the new development and redevelopment activity shall submit as-built or record document plans for all plans that include any structural BMPs. In addition, the person responsible for the new development and redevelopment activity is required to submit written certification from the professional engineer, landscape architect or tier B land surveyor responsible for the field supervision of the new development and redevelopment activity that the activity was accomplished in substantial accordance with the approved Stormwater Management Design Plan.

Additional information necessary for a complete project review may be required by the City Engineer as deemed appropriate. This additional information may include items such as location of public sewers, water lines, septic fields, wells, etc.

The City of Clemson Stormwater Design Manual and SCDHEC Stormwater BMP Handbook include a list of acceptable BMPs, including their specific design performance criteria and operation and maintenance requirements for each Stormwater practice. Copies of these documents can be obtained through the City Engineer, or SCDHEC.

DIVISION 6 – OPERATION AND MAINTENANCE OF STORMWATER MANAGEMENT SYSTEMS AND WATER QUALITY DEVICES

Sec. 11-211. – Implementation

The City of Clemson shall implement this division in the entire regulated SMS4 area with eighteen months from the effective date of the City's written certificate of coverage for SCR030000 from SCDHEC

Sec. 11-212. – Operations Maintenance Agreements.

All permanent stormwater management facilities shall be privately owned, operated, and maintained unless the City of Clemson accepts the facility for shared City maintenance.

Prior to the issuance of permit coverage for stormwater discharges, the property owner or lessee shall execute a legal document entitled "Stormwater Management Facility Ownership, Operations and Maintenance Agreement" ("The Covenants"). The property owner or the lessee, shall record The Covenants in the appropriate Office of the Register of Deeds. The location of the facility, the recorded location of The Covenants document, and a document stating the property owner's or lessee's responsibility shall be shown on a plat, or in the case of a lessee, as an exhibit attached to the lessee's Covenants, that is also recorded in the appropriate Office of the Register of Deeds. In the case of a lessee, the property owner shall be named on any Covenant and be required to conduct maintenance activities upon the termination of a lease agreement.

The City Engineer must be notified in writing of any changes in maintenance responsibility for the stormwater management facilities at the site. This requirement shall be included in the maintenance agreement.

Stormwater quantity and quality control facilities shall be located so that required easements can be effectively used and ownership and maintenance responsibility can be clearly defined in deeds and plats.

The Covenants shall specify minimum maintenance requirements to be performed at necessary intervals by the property owner or lessee, as the case may be.

If a facility or any portion of the stormwater system is not being maintained as required, the City Engineer or designee will notify the property owner or Lessee, as the case may be, in writing. If property owner or Lessee, as the case may be, fails to repair or maintain the facility within the allotted time, the City Engineer may authorize the work to be performed by the City or others. In such cases, the property owner or Lessee, as the case may be, shall reimburse the City for its direct and related expenses. If the property owner or Lessee, as the case may be, fails to reimburse the City, the City is authorized to file a lien for said costs against the property or the Lessee's leasehold interest, as the case may be, and to enforce the lien by judicial foreclosure proceedings. A property owner or lessee may hire or contract others to perform necessary maintenance actions, but the City of Clemson will hold the person named in the Covenants as the responsible party should legal actions be necessary.

When the City Engineer or his designee determines that additional storage capacity or pollution reduction beyond that required by the applicant for on-site stormwater management is necessary in order to enhance or provide for the public health, safety and general welfare, to correct unacceptable or undesirable existing conditions or to provide protection in a more desirable fashion for future development, the City of Clemson may require additional stormwater controls required to prevent degradation of water quality or increase downstream flooding.

DIVISION 7 – INSPECTION

Sec. 11-231. – Implementation

The City of Clemson shall implement this division in the entire regulated SMS4 area with eighteen months from the effective date of the City's written certificate of coverage for SCR030000 from SCDHEC

Sec. 11-232. – Stormwater management inspection

The City of Clemson shall establish and enforce inspection frequencies in compliance with the most current SCDHEC Construction General Permit SCR010000 and NPDES SMS4 General Permit, SCR030000. These inspection frequencies shall be contained in the Stormwater Management Design Manual.

Sec. 11-233. – Access

Representatives of the city and of any federal and state unit of government are authorized to enter upon any private property to inspect development activity, to verify the existing conditions of a development site that is currently under permit review, and to verify compliance with the provisions of this article whenever the city deems necessary.

Sec. 11-234. – Post construction inspections

In order to comply with the terms and conditions of the NPDES SMS4 General Permit SCR030000, the city, through its duly designated employees and officials, may enter private property to perform periodic post construction inspections:

- (a) Inspections ensure that all post construction stormwater BMPs are operating correctly and are being maintained as required consistent with the applicable Stormwater Management Facility Ownership, Operations and Maintenance Agreement,
- (b) Document inspection findings in an inspection report, maintain records of inspection findings and enforcement actions, and make them available for review.

DIVISION 8 – ENFORCMENT, WAIVERS, VARIANCES, APPEALS, PENALTIES, AND FEES

Sec. 11-241. – Establishment

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this article. Any person who has violated or continues to violate the provisions of this article, may be subject to the enforcement actions outlined in this section or may be restrained by injunction or otherwise abated in a manner provided by law.

Sec. 11-242 – Enforcement

In the event a violation constitutes an immediate danger to public health or public safety, city personnel are authorized to enter upon the subject private property, without giving prior notice, to take any and all measures necessary to abate the violation and/or restore the property. The city shall be entitled to compensation for any expenses involved in abating the violation and/or restoring the property. The city shall have to option of performing the work and placing a lien on the property for recovery of such documented expenses.

Whenever city personnel finds that a person has violated a prohibition or failed to meet a requirement of this article, the City Engineer may order compliance by written notice of violation to the responsible person.

The City shall develop an Enforcement Response Plan (ERP) within one year from the effective date of the City's written certificate of coverage for SCR030000 from SCDHEC.. The ERP shall define the City's response to violations and address repeat and continuing violations through progressively stricter responses as needed to achieve compliance.

Sec. 11-243 – Waivers

Waivers may be granted from the requirements of this article for individual land disturbing activities provided that a written request is submitted by the applicant to the City Engineer containing descriptions, drawings and any other information that is necessary to evaluate the proposed activity. A separate written Waiver request shall be required if there are subsequent additions, extensions or modifications which would alter the approved stormwater management characteristics to the activity receiving a Waiver.

A project may be eligible for a Waiver from stormwater management requirements for both quantitative and qualitative control if the applicant can demonstrate that the proposed project will return the disturbed area to a pre development runoff condition and the pre development land use is unchanged at the conclusion of the project.

A project may be eligible for a Waiver of stormwater management requirements if the applicant can demonstrate that:

- (a) The proposed project will have no significant adverse impact on any receiving natural waterway or downstream properties: or
- (b) The imposition of peak control requirements for rates of stormwater runoff would aggravate downstream flooding.

Sec. 11-244 – Variances

The City Engineer may grant a written Variance from any requirement of this article if there are exceptional circumstances applicable to the site such that strict adherence to the provisions of this article will result in unnecessary hardship and not fulfill the intent of this article. A written request for a Variance shall be provided to the City Engineer and shall state the specific Variances sought and the reasons with supporting data for their granting. The City Engineer shall not grant a Variance unless and until sufficient specific reasons justifying the Variance are provided by the applicant.

Sec. 11-245 – Appeals

Appeals to the decision of the City Engineer or designee shall be made to the Building Board of Appeals. A person having a substantial interest affected by a decision of the Building Board of Appeals may appeal the decision to

the circuit court of Pickens County by filing with the clerk of the court a petition setting forth plainly, fully, and distinctly why the decision is contrary to law. The appeal shall be filed within 30 days after the written decision of the administrator is issued.

Sec. 11-246 – Penalties

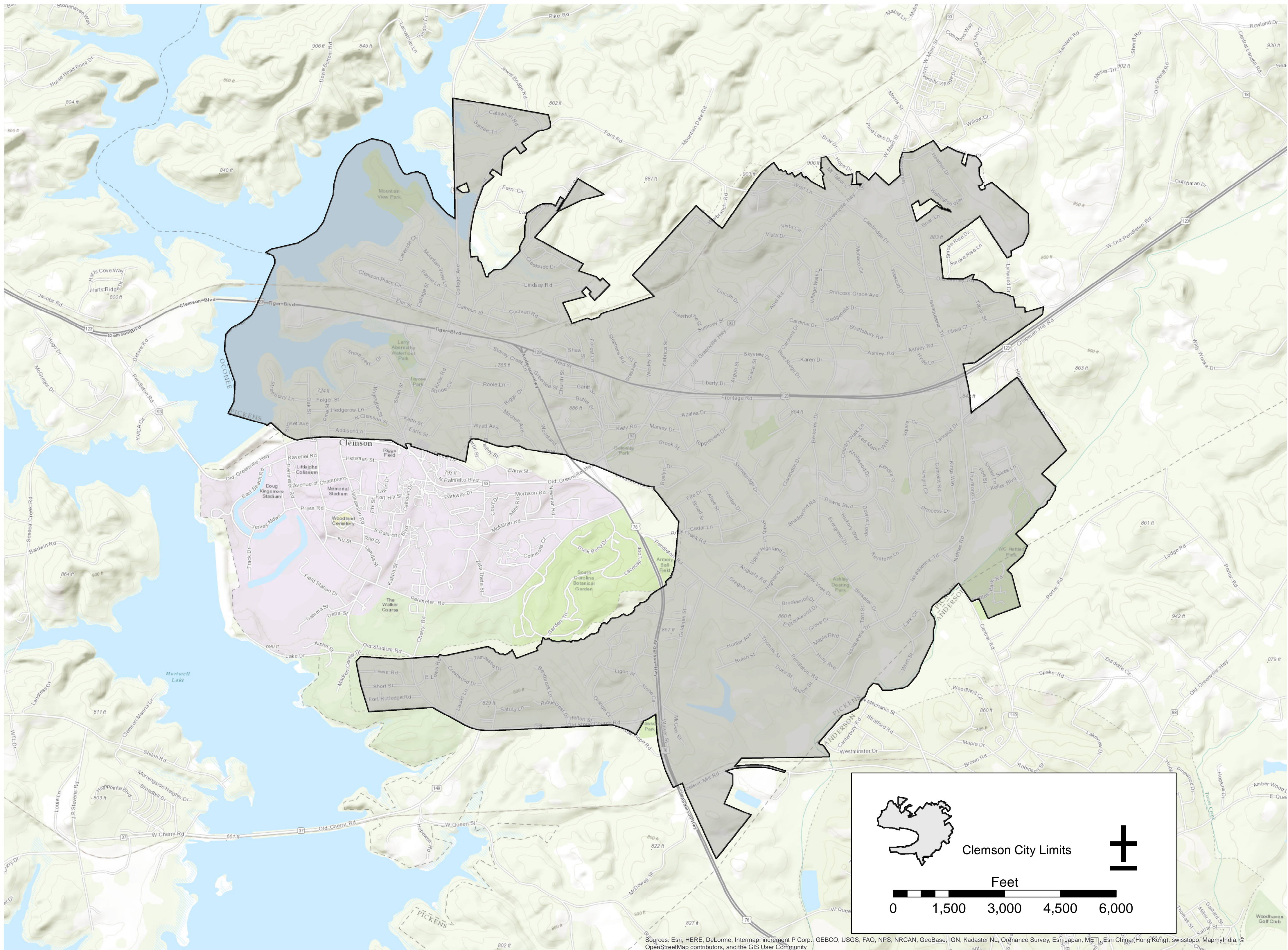
Any person found to be in violation of this ordinance that fails to comply with a compliance directive issued by the City Engineer shall be punishable as provided in the City of Clemson Enforcement Response Plan. Each day in violation of the provisions of this section shall constitute a separate and distinct offense. In the event the alleged violator fails to take the remedial measures set forth in the notice of violation or otherwise fails to cure the violations described therein within receipt of an oral or written notice, as the City shall deem appropriate, after the City has taken one or more of the actions described above, the City may impose a penalty not to exceed \$500 (depending on the severity of the violation) for each day the violation remains un-remedied.

Sec. 11-247 – Fees

The City Engineer shall have the right to establish a schedule of appropriate fees for any person or property owner establishing a new discharge to the City of Clemson SMS4. Such fee shall be payable as part of any permit application or submission, regulating the discharge of stormwater runoff (i.e. plan review fees). Permit fees shall be established on the basis of facility classes relating to the quantity and quality of permitted discharge. Costs associated with field inspection of land development or construction activities other than those routinely performed by the City Engineer or designee as part of compliance monitoring shall be assessed a fee representing the cost in labor, equipment, and materials expended in the conduct of the inspection. A fee associated with the plan review of land development construction documents shall be assessed. All fees shall be listed in the City of Clemson Stormwater Management Design Manual. The establishment and revision of these fees shall be approved by the City of Clemson Council.

APPENDIX D

City of Clemson MS4 Boundary Map



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MafmyIndia, © OpenStreetMap contributors, and the GIS User Community

Appendix E

City of Clemson Acceptance into the Pickens County Stormwater Partners




Tue 8/18/2015 9:54 AM

Ralph Guarino <ralphg@co.pickens.sc.us>

Pickens County Stormwater Program

To Rick Cotton

Cc Scottie Ferguson; Nathan Hinkle; Donna Owen; Sheila Tinsley

 You forwarded this message on 8/18/2015 10:01 AM.

Rick,

Good morning; at last night's Council meeting, Council approved the City of Clemson's request for acceptance into our Stormwater program as it relates to Minimum Control Measures #1 and #2. If you have any questions please contact Scottie Ferguson at 898-5789.

Sincerely

Ralph E. Guarino Jr.
Finance Director
222 McDaniel Avenue B-4
Pickens SC 29671
ralphg@co.pickens.sc.us
Telephone 864-898-5854
Fax 864-898-5796
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