

**Lancaster County Stormwater Advisory Council
Regular Meeting Agenda**

**Wednesday, March 28, 2018
12:30 pm**

**Conference Room
1033 W. Meeting Street
Lancaster, SC 29720**

1. Call to Order Regular Meeting:
2. Approval of the Agenda
3. Approval of Minutes
4. Discussion Items:
 - a. PowerPoint Presentation during lunch
5. Updates
 - a. June 30, 2017: County Engineer started
 - b. Coordination with Keck and Wood concerning MS4 Implementation
 - c. September 1, 2017: Revised Stormwater Management Plan SWMP submitted to DHEC (Attachment A)
 - d. September 2017: Stormwater staff prepared three documents to explain the fee imposed on panhandle residents (Attachment B)
 - e. DHEC representatives came to Council subcommittee meeting to discuss MS4 regulations and responsibilities
 - f. September 15, 2017: Ordinance 2017-1455 Establishment of Stormwater Management Utility filed with Clerk (Attachment C)
 - g. October 2017: Stormwater webpage launched with basic stormwater information
 - h. October 2017: Fee was included in tax bills
 - i. January 1, 2018: LC Stormwater began issuing stormwater permits in panhandle
 - j. January 29, 2018: Elizabeth Evans joined the team
 - k. Entered into lease for Indian Land Service Center office
 - l. February 20, 2018: Terrance Barr joined the team

- m. March 1, 2018: Kristen Jones joined the team
- 6. Staff input:
- 7. Present Goals:
 - a. Relocate to Indian Land office
 - b. Implement program as we develop processes
 - c. Selection of project management software program
 - d. Finalize and implement checklist for staff and applicant use
 - e. Review and revise UDO
 - f. Develop an illicit discharge ordinance
- 8. Additional Staff:
 - a. Inspector
 - b. Community outreach specialist
- 9. Schedule for future meetings
- 10. Closing comments:
- 11. Adjournment

LANCASTER COUNTY SMS4 PHASE II STORMWATER MANAGEMENT PLAN

Lancaster County, South Carolina



Developed by:

Lancaster County

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Lancaster, SC 29721

Phone: (803) 285-1565

Issued: 3/30/2015

Revised: 9/1/17

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List of Acronyms and Abbreviations

BIO	Macroinvertebrate
BMP	Best Management Practice
CEPSCI	Certified Erosion Prevention and Sediment Control Inspector
CWA	Clean Water Act
CU	Copper
EPA	Environmental Protection Agency
ERP	Enforcement Response Plan
FC	Fecal Coliform
HOA	Homeowners Association
IECA	International Erosion Control Association
IDDE	Illicit Discharge Detection and Elimination
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
PIP	Public Involvement/Participation
POA	Property Owners Association
POC	Pollutant of Concern
SCDHEC	South Carolina Department of Health and Environmental Control
SCDOT	South Carolina Department of Transportation
SMS4	Small Municipal Separate Storm Sewer System
SOP	Standard Operating Procedure
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load

1.0 Introduction

The Clean Water Act (CWA) is the primary federal legislation protecting surface waters, such as lakes, rivers, and coastal areas. The CWA is the result of the Federal Water Pollution Control Act (WPCA), which was initially enacted in 1948. This legislation utilized ambient water quality standards to specify acceptable levels of pollution in lieu of preventable causes of water pollution. This approach has been proven to be an ineffective method in preventing pollution. Additional problems encountered with the WPCA included ambiguous federal and state responsibilities for promulgating the standards and cumbersome enforcement methods.

In 1972, the CWA was enacted to strengthen and expand the role of the WPCA. The CWA implemented measures which were focused on establishing effluent limitations on point sources, or "any discernable, confined, and discrete conveyance from which pollutants are or may be discharged". Additional measures employed by the CWA included the following items:

- Increased accountability toward dischargers of pollutants
- Required states and tribes to survey their waters and determine the appropriate use for each, followed by the implementation of specific water quality criteria for various pollutants to protect the identified uses
- Provided certain funding mechanisms to assist communities in achieving clean water goals. The 1972 CWA introduced the National Pollutant Discharge Elimination System (NPDES)

1.1 National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) program was established as the fundamental regulatory mechanism of the CWA. The NPDES program requires that a direct discharger of a pollutant into waters of the United States must obtain an NPDES permit. Initially, the permitting effort was focused on municipal and industrial wastewater facilities. Although these discharges were controlled, many impaired water bodies remain impaired.

Subsequent studies have determined that diffuse (non-point) sources, *e.g.*, storm water runoff from urban and agricultural areas, construction sites, land disposal areas, and mining activities, are presently the leading contributors to water quality impairment. Although storm water originates from various diffuse sources, this runoff is frequently discharged through separate storm sewer systems (catch basins and pipe networks) or other conveyances. Therefore, the CWA was amended in 1987 to include Section 402(p), which required the United States Environmental Protection Agency (EPA) to develop a comprehensive phased program to regulate storm water discharges under the NPDES program. The NPDES Phase I rule, which was promulgated in November 1990, addressed storm water discharges from medium to large municipal separate storm sewer systems (MS4), which were communities serving a population of at least 100,000 people, as well as storm water discharges from industrial activity. Phase I MS4s in South Carolina include the SCDOT (Large),

Greenville County (Medium), Richland County (Medium) and the City of Columbia (Medium). The ruling also placed permitting requirements on certain construction activities.

The NPDES Phase II rule, which was promulgated in December 1999, addressed small municipal separate storm sewer systems (SMS4) serving a population of less than 100,000 people in urbanized areas. Per the 2010 Census data, the estimated population of Lancaster County was approximately 76,652. The Phase II rule generally defines an urbanized area as a densely settled core of census tracts and/or census blocks that have a population of at least 50,000, along with adjacent territory containing non-residential urban land uses as well as territory with low population density included to link outlying densely settled territory with the densely settled core. Based on the 2010 Census data, areas within the “panhandle” portion of Lancaster County meet this definition and have been designated as a regulated SMS4. In the state of South Carolina, the EPA has delegated the South Carolina Department of Health and Environmental Control (SCDHEC) as the state NPDES permitting authority.

The Phase II rules require operators of designated SMS4’s and construction activity to apply for NPDES permit coverage. In South Carolina the designated SMS4 is responsible for managing the NPDES permitting requirements for construction activity. Lancaster County is applying for coverage under the State general permit. In general terms the Phase II final rules require the following:

- A regulated SMS4 operator must develop, implement, and enforce a stormwater management program designed to reduce the discharge of pollutants from their SMS4 to the “maximum extent practicable,” to protect water quality requirements of the CWA
- The SMS4 stormwater management program must include the following six minimum control measures: public education and outreach; public participation/involvement; illicit discharge detection and elimination; construction site runoff control; post-construction runoff control; and pollution prevention/good housekeeping
- A regulated SMS4 operator must identify its selection of Best Management Practices (BMP’s) and measurable goals for each minimum measure in the permit application. The evaluation and assessment of the chosen BMP’s and measurable goals must be included in periodic reports to the permitting authority

1.2 SMS4 Program Development Schedule

Lancaster County received a designation letter for inclusion in the NPDES program as a regulated SMS4 in October, 2014. The County submitted its Notice of Intent (NOI) and draft Stormwater Management Plan (SWMP) to SCDHEC on March 30, 2015. Coverage under the NPDES General Permit began in July of 2016. Lancaster County has begun implementing the SWMP over a three year period. SCDHEC outlines a phased approach for compliance with requirements set forth in the General Permit for new permittees.

Year One

- Implement Public Outreach and Education
- Perform Dry Weather Field Screening
- Review Existing Ordinances and Adopt New Ordinances for Program Implementation
- Prepare Enforcement Response Plan
- Submit Annual Report

Year Two

- Develop Total Maximum Daily Load (TMDL) Monitoring Plan - End of Year 2
- Implement Construction Site Storm Water Plan - 18 Months
- Implement Post Construction Storm Water Management Plan - 18 Months
- Submit Annual Report

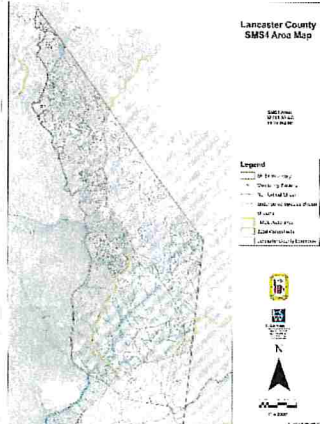
Year Three

- Initiate TMDL Monitoring Plan
- Submit Reapplication/Annual Report

Throughout the process, the permit requires on-going efforts associated with public participation and involvement in development and implementation of the SWMP as well as good housekeeping and employee training in regards to meeting the minimum measures required. The SWMP should be fully implemented at the end of the permit cycle.

2.0 Notice of Intent (NOI) Information

Table 1: NOI Table

General Permit Section	NOI Information	Description
2.2.1 Information on the Permittee:		
2.2.1.1	Name of Permittee:	Lancaster County
	Mailing Address:	Lancaster County P.O. Box 1809 Lancaster, SC 29721
	Telephone Number:	803-285-1565
2.2.1.2	Public Entity Type:	County
2.2.2 Information on the SMS4:		
2.2.2.1	Map of Lancaster County SMS4:	<p>SMS4 Location: Lancaster County Panhandle (North of SC-5)</p> <p>SMS4 Area: 58.3 square miles</p> <p>SMS4 Center Coordinates: Latitude: N34° 58'20" Longitude: W80° 51'04"</p> 
2.2.2.2	Major Receiving Waters:	Catawba River, Sugar Creek, McAlpine Creek, Twelve Mile Creek, Waxhaw Creek
2.2.2.3	Indian Lands:	No portion of Lancaster County's S MS4 is located on Indian Lands.

General Permit Section	NOI Information	Description
2.2.2.4	List of Significant Entities within Lancaster County:	The following entities operate a separate storm sewer system within the MS4 area of Lancaster County. <ul style="list-style-type: none"> • SCDOT
2.2.2.5 2.2.2.6	BMP Information:	See Section 4.0 for a discussion of the BMPs for each minimum measure. Each minimum measure contains available information on the BMPs that are to be implemented, their measurable goals, a schedule for their implementation, and the person(s) responsible.

3.0 Special Conditions Applicable to Permitted Stormwater Discharges to Sensitive Waters

The SMS4 general permit requires that Lancaster County determine whether its systems discharge to sensitive waters. For the purpose of the permit, sensitive waters are waters:

- With a Total Maximum Daily Load (TMDL) developed and approved, or established by EPA;
- Included in the most recent SC DHEC Section 303(d) list;
- In Source Water Protection Areas (SWPA); and,
- Pursuant to DHEC Water Classifications & Standards (R.61-68) and Regulations (R.61-69) classified as either:
 - Outstanding National Resource Waters;
 - Outstanding Resource Waters;
 - Trout Waters; or,
 - Shellfish Harvesting Waters.
- The LCSC Panhandle SMS4 does include 303(d) listed waters, TMDL streams, and the Carolina Heelsplitter which is an endangered species of mussel. These criteria set the baseline standard for pollutants of concern will guide the SMS4 minimization efforts.

3.1 Determination of Receiving Water Conditions and Impacts

The SMS4 general permit requires Lancaster County to determine whether stormwater discharges from part of the SMS4 contribute one or more pollutants directly or indirectly to an impaired waterbody that is listed in the most recent South Carolina 303(d) list. The list identifies water bodies that do not currently meet state water quality standards. The list is intended to be used as a tool to determine what types of water quality improvement measures should be taken. To meet this SMS4 general permit requirement, the County has collected information from SCDHEC on the location of impaired waters, as determined from results of the

State's monitoring program that could potentially be impacted by discharges from the County's SMS4. The following table provides a list of the impaired waterbodies on the 2014 303(d) list that the County's SMS4 contributes to, either directly or indirectly.

Table 2: 2016 303(d) List of Impaired Stations for Lancaster County's SMS4 Area

Major Receiving Waters	Station Description	Station	Pollutant of Concern
CATAWBA RIVER	SUGAR CREEK AT SC 160	CW013	BIO
	SUGAR CREEK AT S-46-36	CW036	Ecoli/CU
	MCALPINE CREEK AT S-29-64	CW064	BIO/Ecoli
	SUGAR CREEK AT MCALPINE CREEK	CW246	BIO

3.2 TMDL Monitoring and Assessment

In compliance with Section 3.2.1 of the SMS4 general permit, TMDL monitoring and assessment plans will be developed for TMDL waters receiving SMS4 discharge pollutant(s) of concern, except where Section 3.1.1.2 of the SMS4 general permit is applicable. For TMDLs existing before the effective date of permit coverage, TMDL monitoring and assessment plans will be completed, submitted to SCDHEC, and appended to this SWMP within 24 months of the effective date of permit coverage. For newly established TMDLs, the County will complete a TMDL monitoring and assessment plan within 24 months of the effective date of the TMDL. As completed, TMDL monitoring and assessment plans will be submitted to SCDHEC. Sampling will be initiated within 36 months of the effective date of permit coverage for TMDLs existing before the effective date of permit coverage. For newly established TMDLs, Lancaster County will initiate sampling within 36 months of the effective date of the TMDL.

Table 3: List of Approved TMDLs within Lancaster County's SMS4 Area

TMDL Watershed	Pollutant of Concern	Effective TMDL Date
Waxhaw Creek	Fecal Coliform	September, 2005
Sixmile Creek	Fecal Coliform	September 2005
Twelvemile Creek	Fecal Coliform	September 2005

3.3

TMDL Implementation and Analysis

In compliance with Section 3.3.2 of the SMS4 general permit, TMDL Implementation Plans will be developed for all TMDL waters receiving SMS4 discharges of pollutant(s) of concern, except when Section 3.1.1.2 of the SMS4 general permit is applicable. TMDL Implementation Plans will be completed and submitted to SCDHEC within 48 months from the effective date of permit coverage, or, for TMDLs established after the effective date of permit coverage, within 60 months of the effective date of the TMDL.

3.4 Discharges to Impaired Waterbodies

For impaired water bodies for which no TMDL has been assigned, protection will be provided through BMP applications conducted through implementation of the minimum control measures in section 4.2.

3.5 Discharges to Classified Waters

The regulated areas of Lancaster County do not discharge to classified waters.

3.6 Discharges to Source Water Protection Areas

The regulated areas of Lancaster County do not discharge to Source Water Protection Areas.

4.0 Storm Water Management Plan

4.1.1 Permit Requirements

Permittees shall develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from the SMS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. At a minimum, Lancaster County will be required to implement a Storm Water Management Program which must address the following issues:

- Specify Best Management Practices (BMPs) for six minimum control measures and implement them to the "maximum extent practicable",
- Identify measurable goals for these control measures,
- Develop an implementation schedule for these control measures or frequency of activities, and Define the responsible entity to implement these control measures

4.1.2 SWMP Development

Lancaster County will prepare a draft version of the SWMP for submission March 30, 2015 with an anticipated approval date of January 1, 2016.

4.1.3 Contents of the SWMP

At a minimum, Lancaster County must develop ordinances, or other regulatory mechanisms, providing the legal authority necessary to implement and enforce the requirements of the SMS4 general permit by January 1, 2016 that provide adequate legal authority to control pollutant discharges into and from the SMS4, and to meet the requirements of the SMS4 general permit.

4.1.4 Requirements to Develop Adequate Legal Authority

As a regulated SMS4, Lancaster County must develop the legal authority to implement and enforce the SWMP within one (1) year from the effective date of the NPDES permit. Within the first year Lancaster County must review existing ordinances to determine applicability to NPDES requirements and where current ordinances do not exist adopt new ordinances to at a minimum address the following:

- *Establish Authority to Prohibit Illicit Discharges* – Prohibit and eliminate illicit connections and discharges to the SMS4.
- *Establish Authority to Prohibit Spills and Other Releases* – Control the discharge of spills, and prohibit dumping or disposal of materials other than storm water into the SMS4.
- *Establish Authority to Require Compliance* – Require compliance with conditions in the permittee's ordinances, permits, contracts, or orders (i.e., hold dischargers accountable for their contributions of pollutants and flows).
- *Establish Authority to Require Installation, Implementation, and Maintenance of Control Measures* – Require owners/operators of construction sites, new development and redevelopment (including industrial and commercial activities without an NPDES industrial storm water permit) to minimize the discharge of pollutants to the maximum extent practical and to protect water quality.
- *Establish Authority to Receive and Collect Information* – Permittee must have the authority to request from operators of construction sites, new or redeveloped land, including industrial and commercial land information including, but not limited to, specific requirements to control construction, industrial, and post-construction discharges of pollutants in storm water. This authority must also include the ability to enforce, stop work, require compliance, etc. for controlling pollutants from these sources.
- *Establish Authority to Inspect* – Permittees must have the authority to enter private property for the purpose of inspecting any facilities, equipment, practices, or operations related to storm water discharges to determine whether there is compliance with local storm water control ordinances/standards or requirements in the permit.
- *Establish Response to Violations* – The permittee must have the ability to promptly require that violators cease and desist illicit discharges or discharges of storm water in violation of any ordinance or standard and/or cleanup and abate such discharges.
- *Establish Monetary Penalties* – The permittee must have the authority to levy citations or administrative fines against responsible parties and require recovery and remediation costs from responsible parties.
- *Establish Civil and Criminal Penalties* – The permittee must have the ability to impose more substantial civil or criminal sanctions (including referral to a county or district attorney) and escalate corrective response, consistent with its enforcement response plan, for persistent non-compliance, repeat or escalating violations, or incidents of major environmental harm.

4.1.5 Enforcement Measures and Tracking

Lancaster County will implement an Enforcement Response Plan (ERP) by January 1, 2016, and revise as necessary throughout the permit cycle. The ERP will describe the County's potential responses to violations and address repeat and continuing violations through progressively stricter responses as needed to achieve compliance.

4.1.6 Report Requirements

Lancaster County will at a minimum submit the following information in the yearly reports:

- The status of implementing the components of the SWMP that are established as permit conditions;
- Proposed changes to the SWMP that are established as permit conditions;
- Revisions, if necessary, to the assessment of controls and the fiscal analysis, including a description of staff resources necessary to meet the requirements of the permit;
- A summary of data, including monitoring data, that is accumulated throughout the reporting year; and,
- A summary describing the number and nature of enforcement actions, inspections, and public education programs.

4.1.7 SWMP Minimum Control Measure Requirements

The Lancaster County SWMP includes the following information for each of the six minimum control measures detailed in Section 4.2 of this SWMP:

- Best Management Practices (BMP's) that the County or another entity on behalf of the County, will implement for each of the MCM;
- Measurable goals for each of the BMP's including, as appropriate, the months and years in which the County will undertake required actions, including interim milestones and the frequency of the action; and,
- Person, or persons, responsible for implementing or coordinating the BMP's for the County's SWMP.

4.1.8 SWMP Development

Lancaster County will strive to develop their SWMP as outlined in SCDHEC schedule of compliance.

4.1.9 SWMP Implementation

Lancaster County will have the SWMP implemented within three years from the effective date of the written certificate of coverage.

4.1.10 Modification to the SWMP Document

SCDHEC Bureau of Water may notify Lancaster of the need to modify the SWMP document to be consistent with the permit, in which case Lancaster County will have 90 days to finalize such changes to the plan.

Lancaster County will keep the SWMP document up to date during the term of the permit. Where Lancaster County determines that Ordinance modifications are needed to address procedural, protocol, or programmatic change, such changes must be made as soon as practicable, but not later than 360 days.

Table 4: SWMP Requirements

SWMP REQUIREMENTS				
Develop and Implement SWMP	Not Started:		In Progress:	✓
	Completed:			
Section: 4.1.2 and 4.1.8				
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party	
Prepare NOI and Develop Draft Storm Water Management Plan. Full implementation will occur over a three year period.	30-Mar-15 Approved 7/1/16	Once during permit application	Lancaster County Public Works	
Create Stormwater Management Ordinance	Not Started:		In Progress:	✓
	Completed:			
Section: 4.1.3 and 4.1.4				
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party	
Adopt new stormwater ordinances or other regulatory mechanisms that provide adequate legal authority to control pollutant discharges into and from the MS4.	30-Dec-16 1-Jan-18	Once during permit term	Lancaster County Council	
Develop Enforcement Response Plan (ERP)	Not Started:		In Progress:	✓
	Completed:			
Section: 4.1.5				
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party	
Develop enforcement response plan (ERP).	30-Dec-16 1-July-17	Once during permit term	Lancaster County Public Works	

Ensure Adequate Resources	Not Started:		In Progress:	✓	Completed:	
	Section: 4.1.6					
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party		
Analyze current funding sources / availability of existing staff for implementation of the permit requirements. Make recommendations to council as required.	30-Dec-16 1-Sep-17	Annually		County Manager		

Implement Minimum Control Measures (MCM)	Not Started:		In Progress:	✓	Completed:	
	Section: 4.1.7					
Milestone(s)	Schedule/Deadline		Frequency	Responsible Party		
Implement the six minimum control measures to including measurable goals for each.	30-Dec-17 31-Dec-18		Continuously throughout permit term	Lancaster County Public Works		

4.2 Minimum Control Measures

In compliance with the SMS4 general permit requirements; this SWMP includes a description of the six Minimum Control Measures (MCM's) and details on the development and implementation of the plan to address MCM requirements. The details on each minimum measure include the proposed BMP, measurable goals for each proposed BMP, the responsible departments and staff to implement the BMP, and the implementation schedule for the BMP (i.e. start date, frequency of activities, etc.).

4.2.1 Public Outreach and Education (Minimum Measure #1)

4.2.1.1 Permit Requirements

Within the first year of coverage, permittees shall implement a comprehensive stormwater education/outreach program. In order to meet the requirements of Minimum Measure #1, Lancaster County will focus on the development and implementation of educational materials designed to inform the public about the impacts that stormwater discharges could have on local water bodies, and the steps that the public can take to reduce pollutants in stormwater runoff. The County intends to work in cooperation with and support existing community events in order to efficiently reach as many citizens as economically possible through public education and outreach efforts. The County will assist in promoting events to increase attendance and provide campaign items targeted specifically to address community issues affecting water

quality. The County's public education efforts will target specific events to strategically reach a diverse group of citizens.

Table 5: Minimum Measure #1 Permit Requirements

4.2.1.1.1 The Pollutant(s) Of Concern (POC) Within Lancaster County's Watershed Area(s):
In Lancaster County's watershed area, the potential pollutants of concern (POC) have been determined to be Bacteria (fecal coliform) and Sediment resulting from various point and non-point sources. Bacteria was determined to be a POC due to the existing fecal coliform Total Maximum Daily Load (TMDL) in the Sugar Creek and Twelve Mile Creek watersheds. Sediment is considered a POC due to consistent construction activity in the County's watershed area. Various studies have shown other stormwater pollutants such as nutrients and bacteria bind to sediment particles. A description of the pollutants of concern for the County's watershed area is included below:
4.2.1.1.2 Description Of The POC(s) Listed Above:
<ul style="list-style-type: none"> ➤ <u>Fecal Coliform:</u> Bacteria typically contributes to stormwater pollution due to animal fecal matter in stormwater runoff, failing septic systems, or sanitary sewer leaks/spills and cross connections. ➤ <u>Sediment:</u> Sediment typically contributes to stormwater pollution due to erosion of exposed bare soil areas from construction sites or other land disturbing activities and accelerated stream bank erosion due to land use activities.
4.2.1.1.3 Initiate Planning Process Targeting High Priority Community Issues With The Potential To Decrease The POC's Effect On Water Quality:

The primary pollutant of concern for Lancaster County is bacteria due to TMDLs in the Twelve Mile Creek and Sugar Creek watersheds. In Lancaster County's regulated MS-4 area, the primary community issue that results in bacteria contributing to water quality impairments are sanitary sewer illicit discharges/spills and, to a lesser extent, waste from pets and waterfowl.

Nutrient pollution from wash water activities and lawn fertilizing will also be addressed through public education. Many chemical washing products used in wash water operations contain high concentrations of phosphates which can contribute to in-stream nutrient pollution.

In the County's regulated MS-4 area, sediment is a pollutant of concern due to ongoing land development activities. Sediment pollution can have negative effects on a waterbodies natural food web and can transport other pollutants such as nutrients and bacteria.

The County intends to create a task force including staff and community members to develop educational materials and strategies addressing the pollutants of concern. This may include the following:

- Brochures or Fact Sheets
- Web Sites (County or other)
- Volunteer Citizen Educators
- Public Event Participation
- Educational Programs
- Stormwater Hotlines
- Community Signage

The short term goal of the County's public education plan is to increase awareness of the community issues listed above. The County's long term goal to affect behavior changes in the public is to reach and educate the local children and youth about water quality pollution.

4.2.1.1.4 The Audience(s) That Is Believed To Have An Influence On The POC Identified And That Is Believed To Have An Influence On The Goals And Objectives Identified:

For the community issues, which include recognizing and reporting illicit discharges, pet waste, waterfowl waste, small wash water activities, and lawn fertilization, the target audience will be the citizens visiting, living, and doing business in the County's regulated SMS4.

The target audience for construction activities will be local contractors, developers, and engineers that are responsible for designing, constructing, and maintaining BMP's that prevent sediment loss from land disturbances.

4.2.1.1.5 The Message(s) Directed At The Target Audience(s) Listed Above To Achieve The Program Goals And Objectives:

Develop a “campaign” slogan that is readily identifiable and speaks to the goals of the overall program. Following are examples:

- Clean and Green Campaign
- Only Rain in the Drain
- Clean Water Starts with You
- Be the Solution to Water Pollution

4.2.1.1.6 Education Campaign(s) And Materials:

In order to increase awareness of community issues effecting water quality and convey the program’s message, the County will create education and campaign materials. Some examples of typical public information are listed below:

Illicit discharge outreach brochure – The brochure increases awareness of illicit discharges and encourages citizens to report potential illicit discharges.

Yard savvy publication – The handout increases awareness of common residential activities including wash water and lawn fertilization that may contribute to nutrient pollution.

Think green when planning a car wash fundraiser brochure - The brochure increases awareness of potential water pollution from car wash activities and provides methods to decrease impacts from car washing.

Waterfowl control techniques link – The website link for techniques to control waterfowl increases awareness of pollution resulting from waterfowl waste and provides HOA’s and businesses techniques to control unwanted waterfowl.

Single-lot construction brochure - The brochure increases awareness of common “single lot” erosion concerns such as silt fence installation/maintenance and sediment tracking from construction entrances.

Commercial/Multifamily informational packet – The information packet will educate contractors on sediment and erosion control methods in commercial development.

4.2.1.1.7 Distribution Of Campaign Materials:

The County will target specific events and/or locations to distribute campaign materials in an effort to strategically reach a diverse group of citizens.

4.2.1.1.8 Quantitative And/Or Qualitative Formative Assessment Of Programs:

To the MEP, the County will utilize quantitative and/or qualitative formative evaluation assessments to guide and/or change the program goals and objectives and/or program activities as needed.

4.2.1.1.9 Utilization Of Public Input Into The Development Of This Program:

The County will gather public input from local citizens and business entities within the community. It is anticipated that a task force will be developed from these groups for assistance in developing and implementing the SWMP.

4.2.1.1.10 Implementation Of Program Goals And Objectives:

The County will implement the program goals and objectives to the MEP during the permit term.

4.2.1.1.11 Process For Annual Adjustment Of Program Based Upon Program Assessment:

The County will assess the stormwater education/outreach program annually. The County will adjust their educational materials and the delivery of such materials to address shortcomings found as a result of these assessments.

4.2.1.2 BMP Implementation

The BMP's in this section were selected to better educate citizens on how they may contribute to maintaining and improving water quality. The measurable goals for each BMP for the Public Education and Outreach minimum measure will be used to evaluate the success of each BMP. The following sections describe the components of the County's Public Education and Outreach program:

Table 6: Best Management Practices – Minimum Measure #1

PUBLIC EDUCATION AND OUTREACH BMP'S				
Identify Pollutants of Concern	Not Started:	In Progress:	✓	Completed:
	Section: 4.2.1.1.1			
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party	
Identify the pollutants of concern (POC) within the MS4	30-Mar-15 1-Jul-17	Once during permit application (First Year)	Lancaster County Public Works	
Measurable Goal:				
Prepare a list and description of the POC within the SMS4				
Analyze Pollutants of Concern	Not Started:	In Progress:	✓	Completed:
	Section: 4.2.1.1.2			
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party	
Analyze the pollutants of concern within the SMS4 and how a Public Education and Outreach program can impact the discharge of these pollutants.	30-Mar-15	Once during permit application (First Year)	Lancaster County Public Works	
Measurable Goal:				
Determine how the POC's impact the SMS4 and identify strategies to reduce the POC's				

Initiate Planning Process	Not Started:		In Progress:	✓	Completed:	
	Section: 4.2.1.1.3 & 4.2.1.1.9					
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party			
Create task force of MS4 stakeholders to participate in planning process. Develop program goals and objectives as well as educational materials and strategies to meet those objectives.	30-Jul-16 1-Jul-17	Once during permit term (First Year)	Lancaster County Public Works			
Measurable Goal:						
Task force created and program goals and objectives developed						
Identify and Analyze Audience	Not Started:		In Progress:	✓	Completed:	
	Section: 4.2.1.1.4					
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party			
Develop a list of the target audience to include neighborhoods, schools, and civic organizations.	30-Dec-16 1-Jul-17	Once during permit term (First Year)	Lancaster County Public Works			
Measurable Goal:						
Publish list of target audience and identify outreach strategies for each						
Develop Program Messages	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.1.1.5					
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party			
Develop an easily identifiable program message/mission statement to be used as the focal point for the program.	30-Dec-16 1-Jul-17	Once during permit term (First Year)	Lancaster County Public Works			
Measurable Goal:						
Staff approval/Community support of overall program message						
Develop Education Campaign(s) and Materials	Not Started:		In Progress:	✓	Completed:	
	Section: 4.2.1.1.6					
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party			
Prepare educational materials for distribution at neighborhood meetings, schools and civic functions. Create stormwater website.	30-Dec-16 1-Jul-17	Continuously throughout permit term (First Year)	Lancaster County Public Works			
Measurable Goal:						
Create website and publish outreach material						

Distribute Campaign Materials	Not Started:		In Progress:	✓	Completed:	
	Section: 4.2.1.1.7					
Milestone(s)	Schedule/Deadline		Frequency		Responsible Party	
Distribute materials at various community events.	30-Dec-16 1-Jul-17		Continuously throughout permit term (First Year)		Lancaster County Public Works	
Measurable Goal:						
Distribute materials to reach 5% of the populace within the MS4						
Asses And Adjust The Public Education And Outreach Plan	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.1.1.8 & 4.2.1.1.11					
Milestone(s)	Schedule/Deadline		Frequency		Responsible Party	
Assess and make adjustments to the Public Education program to determine necessary changes to the programs goals or objectives.	30-Dec-16 1-Sep-17		Annually (First Year)		Lancaster County Public Works	
Measurable Goal:						
Revise plan yearly to address needed changes						

4.2.2 Public Participation/Involvement (Minimum Measure #2)

4.2.2.1 Permit Requirements

Permittees are required to involve the public in the planning and implementation activities related to the development and implementation of the SWMP. The County plans to create a task force of stakeholder's from both the public and private sector for planning and implementation of the SWMP. The County also plans to work in cooperation with and support existing community events in order to provide forums to encourage and allow the public to participate in the program.

Table 7: Minimum Measure #2 Permit Requirements

4.2.2.1.1 Create Opportunities For Citizens To Participate In The Implementation Of Stormwater Controls:
The County will create opportunities for the public to participate in a number of ways including participation in the planning and implementation stakeholders group, utilizing public forces (HOA's) to assist in storm drain mapping, stream clean-ups, and storm drain stenciling.
4.2.2.1.2 Ensure Accessibility Of The Information On This SWMP:

Lancaster County has included the SWMP on the County's webpage
http://www.mylancastersc.org/vertical/sites/%7BA02FC01E-6C41-44F4-BE02-9B73FC0206C5%7D/uploads/StormWater_Management__Action_Plan.pdf

4.2.2.1.3 Incorporate Written Procedures For Implementation:

Lancaster County will develop written procedures for implementing the public involvement/participation MCM and incorporate these procedures into the SWMP.

4.2.2.2 BMP Implementation

The BMPs selected in this section describe how the citizens will be informed about the SWMP and lists activities for public participation. The measurable goals for each BMP for the Public Participation and Involvement minimum measure will be used to evaluate the success of each BMP. The following sections describe the components of the County's Public Involvement/Participation program:

Table 8: Best Management Practices – Minimum Measure #2

PUBLIC INVOLVEMENT/PARTICIPATION BMPS				
Sponsor/Support Citizen Participation	Not Started:	✓	In Progress:	Completed:
	Section: 4.2.2.1.1			
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party	
Lancaster County will sponsor/support community events by: promoting/advertising events, distributing water quality awareness campaign items, and providing other general assistance as resources allow.	Throughout Permit Term	Annually	Lancaster County Public Works	
Measurable Goal:				
Sponsor a minimum of two events per year				

Provide Access to SWMP Information	Not Started:		In Progress:		Completed:	✓
	Section: 4.2.2.1.2					
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party			
Ensure public can easily find information about the SWMP.	30-Mar-16	Once during permit term	Lancaster County Public Works			
Measurable Goal:						
Include SWMP on the County's web site.						
Develop Written Procedures	Not Started:		In Progress:		Completed:	✓
	Section: 4.1.6					
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party			
Develop written procedures for implementing the PIP MCM into the SWMP.	30-Dec-16 1-Sep-17	Once during permit term	Lancaster County Public Works			
Measurable Goal:						
Update SWMP to include written procedures						

4.2.3 Illicit Discharge Detection and Elimination (Minimum Measure #3)

4.2.3.1 Permit Requirements

Permittees shall develop, implement, and enforce a program to detect and eliminate illicit discharges into the SMS4. Lancaster County will locate and eliminate illicit discharges by developing BMP's in accordance with the SMS4 general permit requirements. Priority areas will be established based on the higher likelihood of illicit connections, and outfalls located within the priority areas will be visited to check for dry weather flow. Outfalls with dry weather flow will be screened to identify potential illicit discharges. Prior to illicit tracking activities, the County will develop illicit tracking procedures. After illicit tracking procedures have been established, illicit discharges will be tracked to a source and eliminated when possible. Illicit tracking activities will be documented for review.

Table 9: Minimum Measure #3 Permit Requirements

4.2.3.2.1 Development of The Storm Sewer System Map:
<p>Lancaster County will develop a storm sewer system map showing the location of outfalls, and names and locations of waters of the United States that receive discharges from those outfalls. The storm sewer map will be updated as needed to show new outfalls due to new development.</p>
4.2.3.2.2 Identification of Priority Areas:
<p>Lancaster County will identify priority areas for more detailed screening of the SMS4 based on higher likelihood of illicit connections.</p> <p>The County will document the basis for its selection of each priority area and create a list of priority areas identified in the system no later than 12 months after the effective date of permit coverage. The priority area list will be updated annually to reflect changing priorities and be available for review by the permitting authority.</p>
4.2.3.2.3.a Field Screening Procedures And Implementation:
<p>Lancaster County will conduct dry weather field screening and/or analytical monitoring, when necessary, to identify the source of illicit discharges. At a minimum, the County will:</p> <p>Identify field screening points within the priority areas where field screening and analytical monitoring will take place. A list of screening points will be developed. The areas and the schedule for conducting the screening, and field screening points will be identified annually.</p> <p>The elimination of illicit discharges will be documented. Documentation procedures will be developed as described in section 4.2.3.2.6.</p>
4.2.3.2.3.b Field Screening Assessment:
<p>Lancaster County will assess the effectiveness of the Field Screening component of their IDDE program in the third permit year to determine if the level of effort is adequate in attaining the effective prohibition of non-stormwater discharges into the SMS4. Where updates are found to be necessary, the County will make such changes and include them as part of the re-notification required under Part 2.5 of Permit SCR030000.</p>
4.2.3.2.3.c Procedures For Notifying Another MS4 or SMS4 of An Illicit Discharge:
<p>For non-traditional MS4 permittees, if illicit connections or illicit discharges are observed related to another operator's municipal storm sewer system then the County will notify the other operator as soon as practical.</p>
4.2.3.2.3.d Addressing a Notification of An Illicit Discharge By Another Operator:
<p>Lancaster County will follow appropriate procedures when notified of an illicit discharge by another MS4 or SMS4 operator.</p>
4.2.3.2.3.e Written procedures for implementing the program:

Lancaster County will include the field screening procedures in the SWMP as they are developed.

4.2.3.2.4/5 Tracing The Source of An Illicit Discharge:

Lancaster County will develop procedures for conducting illicit tracking and elimination procedures. After notification of an illicit discharge, the County will initiate an investigation(s) to attempt to identify and locate the source of continuous or intermittent non-stormwater discharge on the same day when practicable but no later than two (2) business days. The County will report immediately the occurrence of dry weather flow believed to be an immediate threat to human health or the environment to SCDHEC Emergency Response, 1-888-481-0125.

Illicit Discharges suspected of being sanitary sewage and/or significantly contaminated will be considered a high priority and will be reported to the appropriate public utility owner within one (1) business day.

Investigations of illicit discharges suspected of being cooling water, wash water, or natural flows may be delayed until after discharges suspected of having the potential to adversely impact either human health or water quality have been investigated, eliminated, and/or resolved.

At a minimum, the County will document the date(s) the illicit discharge was observed; the results of the investigation; follow-up of the investigation; and the date the investigation was closed.

4.2.3.2.6 Documenting Illicit Discharges:

Lancaster County will determine and document, through their investigations, the source of confirmed illicit discharges. If the source of the suspected illicit discharge is found to be a suspected non-compliance with an NPDES permit, the appropriate SCDHEC Regional Office will be notified.

- a. If an illicit discharge is found, but within six (6) months of the beginning of the investigation neither the source nor the same non-stormwater discharge has been identified/observed, then the County will maintain written documentation for review by the permitting authority.
- b. If the observed discharge is intermittent, the County will document that a minimum of three (3) separate investigations were made to observe the discharge when it was flowing. If these attempts are unsuccessful, the County will maintain written documentation for review by the permitting authority. However, since this is an ongoing program, the County will periodically recheck these suspected intermittent discharges.

4.2.3.2.7 Corrective Action Plan to Eliminate Illicit Discharges:

Once the source of the illicit discharge has been determined, the County will:

- a. Attempt to notify the responsible party of the problem as soon as practical but no later than one (1) business day.
- b. Require the responsible party to conduct necessary corrective actions to eliminate the non-stormwater discharge within 30 days or sooner as determined by the County. When, and if, elimination will take longer than 30 days, the County will require responsible parties to submit a plan with a schedule for elimination.
- c. Conduct a follow-up investigation and field screening, consistent with Part 4.2.3.2.4/5 of this SWMP, to verify that the discharge has been eliminated.
- d. Document their follow-up investigations.
- e. Follow the SWMP ERP and include the resulting enforcement actions in the subsequent report.

4.2.3.2.8 Public Reporting Mechanics:

Lancaster County will promote, publicize, and facilitate an illicit reporting hotline for the public and staff to report illicit discharges. The County will establish and implement citizen response procedures in the illicit tracking procedures document created for section 4.2.3.2.4/5. The citizen response procedures in the illicit tracking procedures document will:

- a. Develop a written spill/dumping response procedure for responding to public notices of illicit discharges, the various responsible agencies and their contacts, and who would be involved in illicit discharge incidence response.
- b. Include procedures for inspections in response to complaints and follow-up inspections as needed to ensure that corrective measures have been implemented by the responsible party to achieve and maintain compliance.

4.2.3.2.9 Employee Training:

Lancaster County will implement a training program for appropriate municipal staff, which, as part of their normal job responsibilities, may come into contact with, or otherwise observe, an illicit discharge or illicit connection to the storm sewer system. This BMP will be implemented through training for Pollution Prevention in Section 4.2.6.5

4.2.3.2 BMP Implementation

In order to meet the requirements of Minimum Measure #3, Lancaster County has listed BMP's that focus on the detection and elimination of illicit discharges into the SMS4. Evaluation of the success of this minimum measure will be based on the level of implementation of the BMP's included in this minimum measure. The responsibility for implementation of this minimum measure is described with each BMP procedure. The following sections describe the components of the County's Illicit Discharge Detection and Elimination (IDDE) program.

Table 10: Best Management Practices – Minimum Measure #3

IDDE BMPS					
Develop System Map	Not Started:		In Progress:	✓	Completed:
	Section: 4.2.3.2.1				
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party		
Create storm sewer maps indicating the location of outfalls and names and locations of waters of the U.S. that receive discharges from those outfalls.	Ongoing	As Needed	Lancaster County Public Works		
Measurable Goal:					
Create storm sewer map					
Identify Priority Areas	Not Started:	✓	In Progress:	✓	Completed:
	Section: 4.2.3.2.2				
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party		
Create a map identifying illicit discharge priority areas based on an identification of areas with a higher likelihood of illicit connections. The map will be updated annually.	30-Jun-16 1-Jul-17	Annually	Lancaster County Public Works		
Measurable Goal:					
Map indicating limits of dry weather screening					
Identify Screening Points	Not Started:	✓	In Progress:		Completed:
	Section: 4.2.3.2.3a				
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party		
Identify field screening points within the priority area. Include a schedule for conducting the screening.	30-Jul-16 1-Jul-17	Annually	Lancaster County Public Works		
Measurable Goal:					
List of field screening points.					
Schedule for dry weather field screening.					

Conduct Field Screening	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.3.2.3b					
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party		
Conduct dry weather flow screening at outfalls in the priority area and at known dry weather discharges.	30-Dec-16 1-Jul-17	Annually		Lancaster County Public Works		
Measurable Goal:						
Locate potential illicit discharges in the priority area						
Develop Illicit Tracking Procedure	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.3.2.4/5/8					
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party		
Lancaster County will develop procedures for tracking illicit discharges. The illicit tracking procedures will include minimum investigation requirements in section 4.2.3.2.5. In addition, the illicit tracking procedures will include requirements for responding to public reported activities. (section 4.2.3.2.8.a/b)	30-Dec-16 1-Jul-17	Once During Permit Term		Lancaster County Public Works		
Measurable Goal:						
Develop tracking procedures						
Conduct Illicit Tracking/Determine Source of Illicit Discharge	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.3.2.4/5					
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party		
Lancaster County will conduct illicit tracking at outfalls identified as potential illicit discharges by the field screening effort.	Ongoing	As Needed		Lancaster County Public Works		
Measurable Goal:						
List sources of potential illicit discharges based on field screening						

Eliminate Illicit Discharges	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.3.2.7					
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party		
Once the source of an illicit discharge has been determined, the County will follow procedures (a-e) of section 4.2.3.2.7 of the permit to eliminate the illicit discharge	Ongoing	As Needed		Lancaster County Public Works		
Measurable Goal:						
Document elimination of illicit discharges						
Document Illicit Discharge Investigations	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.3.2.5/6					
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party		
The County will document illicit discharge tracking and elimination activities as required by the permit.	Ongoing	As Needed		Lancaster County Public Works		
Measurable Goal:						
Document tracking and elimination activities						
Field Screening Assessment	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.3.2.3b					
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party		
Assess the effectiveness of the Field Screening program by the end of permit year 3.	30-Dec-18 1-Sep-17	Once During Permit Term		Lancaster County Public Works		
Measurable Goal:						
Assessment summary of the effectiveness of the field screening program						

Employee Training	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.3.2.9					
Milestone(s)	Schedule/Deadline		Frequency		Responsible Party	
Lancaster County will implement a training program for appropriate municipal field staff.	30-Dec-16 1-Jul-17		Annually		Lancaster County Public Works	
Measurable Goal:						
Provide IDDE training to field staff						

4.2.4 Construction Site Stormwater Runoff Control (Minimum Measure #4)

4.2.4.1 Permit Requirements

The permittee shall develop, implement and enforce a Construction Site Stormwater Runoff Control program by developing and implementing BMPs in order to meet the SMS4 general permit requirements within 18 months from the effective date of permit coverage. The County will adopt required ordinances, design requirements and Stormwater Pollution Prevention Plan (SWPPP) review requirements for implementing the program. Site inspection procedures will be adopted to conform to the SMS4 general permit requirements, and an enforcement response plan will be developed to determine how the County will use specific types of responses to address various types of violations. In addition, the County will develop a communication process with construction operators to educate them about areas in which improvements are needed.

Table 11: Minimum Measure #4 Permit Requirements

4.2.4.4.1 Regulatory Requirement for Erosion And Sediment Controls:
Lancaster County will develop a sediment and erosion control ordinance within 18 months of the effective date of coverage.
4.2.4.4.2 Requirements for Erosion and Sediment Controls and Soil Stabilization Practices:
Lancaster County will provide requirements for construction site operators to implement appropriate BMPs such as erosion and sediment controls and soil stabilization practices in the "Performance Standards" section of the ordinance.

4.2.4.4.3 Requirements for Pollution Prevention Measures:

The Lancaster County Stormwater Ordinance will include requirements for the design, installation and maintenance of effective pollution prevention measures for construction site operators to:

- a. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.
- b. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on site to precipitation and to stormwater runoff that may cause adverse impacts to water quality.
- c. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.
- d. The following discharges from sites are prohibited:
 - i. Wastewater from washout of concrete, unless managed by an appropriate control;
 - ii. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
 - iii. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and,
 - iv. Soaps or solvents used in vehicle and equipment washing.

4.2.4.4.4 Requirements for Stormwater Pollution Prevention Plans (SWPPP):

Lancaster County's Stormwater Permit Process will require a SWPPP for land disturbances of 1 acre or more or land disturbances less than 1 acre that are part of a larger common plan.

4.2.4.5 Review of SWPPP:

Lancaster County's review procedures will at a minimum meet the following:

- a. Make a clear statement that a SWPPP must be prepared before construction begins.
- b. Lancaster County will adopt appropriate technical criteria in the Stormwater Ordinance to be in compliance with the effective NPDES General Permit for Stormwater Discharges from Construction Activities, SCR100000.
- c. Lancaster County will include a statement in the Stormwater Ordinance that SWPPP submittals must include the rationale used for selecting control measures, including how the control measure protects a waterway or stormwater conveyance.
- d. Lancaster County will use qualified individuals, knowledgeable in the technical review of SWPPPs, to conduct reviews.
- e. Lancaster County will document the review of each SWPPP plan using a checklist.
- f. Lancaster County will develop procedures for SWPPP review including the review of pre-construction site plans, for construction activity that discharge pollutant(s) of concern to TMDL waters and to waters on the 303(d) List of Impaired Waters, the SWPPP must identify potential water quality impacts the permitted discharges may have. The SWPPP shall limit sediment discharges to the MEP, shall protect water quality. Procedures for SWPPP review:
 - i. Incorporate consideration of potential water quality impacts;
 - ii. Include the review of construction site plans;
 - iii. For construction projects that disturb less than 25 acres, carefully evaluate selected BMPs and their ability to control the pollutant(s) of concern;
 - iv. For construction projects that disturb 25 acres or more, require a written quantitative and qualitative assessment showing that the selected BMP will control the discharge of the pollutant, or pollutants, of concern from construction and post construction site within a TMDL watershed, or to a water on the 303(d) List of Impaired Waters; and,
 - v. Require that the SWPPP is prepared by construction activity applicants for SMS4 review and approval must demonstrate that stormwater discharges will neither cause nor contribute to a violation of water quality standards.

4.2.4.6 Site Inspections:

- a. Lancaster County will maintain an inventory of permitted site work. The inventory will be continuously updated as new projects are permitted and projects are completed. The inventory will be edited to contain relevant contact information for each project (e.g., name, address, phone, etc.), the size of the project and area of disturbance. The County will make the inventory available to SCDHEC upon request. As part of this inventory,
 - i. Lancaster County will track the number of inspections for the inventoried construction sites throughout the reporting period to verify that the sites are inspected at the minimum frequencies required; and,
 - ii. Document inspections and enforcement activities for each site in the inventory.

- b. The County will implement procedures for inspecting construction projects in accordance with the frequency listed in the SMS4 general permit.
- c. The County will observe construction. At a minimum, inspections will occur following installation of initial BMPs, during active construction, and after final site stabilization.
- d. The County will have trained and qualified inspectors. The County will also continue to follow, and revise as necessary, written procedures outlining the inspection and enforcement procedures.

Inspections of construction sites will, at a minimum:

- i. Check for coverage under SCR100000 by requesting a copy of application or Notice of Intent (NOI), the stamped approved stormwater pollution prevention plan or other relevant application form during initial inspections.
- ii. Review the applicable stormwater pollution prevention plan and conduct a thorough site inspection to determine if control measures have been selected, installed, implemented, and maintained according to the plan.
- iii. Assess compliance with County's ordinances and permits related to stormwater runoff, including the implementation and maintenance of designated minimum control measures.
- iv. Assess the effectiveness of control measures.
- v. Visually observe and record non-stormwater discharges, potential illicit connections, and potential discharge of pollutants in stormwater runoff.
- vi. Prepare a written or electronic inspection report generated from findings in the field.

4.2.4.7 Enforcement Response Plan (ERP):

Lancaster County will develop an Enforcement Response Plan (ERP). The ERP will contain descriptions of how The County will use specific types of responses to address various types of violations. The ERP will include, but is not limited to:

- a. Types of response:
 - i. Verbal warnings;
 - ii. Written notices; and,
 - iii. Escalated enforcement measures such as citations, fines, stop work orders, etc.
- b. Specific strategies for enforcement response, where necessary, to address persistent, repeat or escalating violations.
- c. Ensure ERP is reasonably effective in reducing pollutant discharges to the MEP and to protect water quality.

4.2.4.8 MS4 Staff Training:

Lancaster County will ensure that staff, whose primary job duties are related to implementing the construction stormwater program, including permitting, plan review, construction site inspections, and enforcement, is trained to conduct these activities.

4.2.4.9 Construction Site Operator and Public Involvement:
4.2.4.9.a Construction Operator Education:
Lancaster County will develop construction operator education as described in MCM#1. A brochure or informational packet will be developed for commercial/multifamily construction operators.
4.2.4.9.b Public Involvement:
Lancaster County will consider public responses for program modifications through public education and outreach programs.

4.2.4.2 BMP Implementation

In order to meet the requirements of Minimum Measure #4, Lancaster County has listed BMP's that focus on the reduction of pollutants in stormwater runoff to the SMS4 from construction activities that result from a land disturbance of greater than or equal to one acre or land disturbances less than one acre that are part of a larger common plan. The County will continue and improve existing BMPs that provide assistance and ensure compliance through routine inspections. Evaluation of the success of this minimum measure will be through careful analysis of the measurable goals for each BMP included in this minimum measure. Measurable goals for each BMP were selected by formulating attainable goals for the various BMP implementation steps or tasks. The following sections describe the components of the Lancaster County's construction site stormwater runoff control program:

Table 12: Best Management Practices – Minimum Measure #4

CONSTRUCTION RUNOFF BMPS				
Develop and Adopt Stormwater Ordinance	Not Started:		In Progress:	✓
	Completed:			
Section: 4.2.4.4.1/2/3				
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party	
Adopt a stormwater ordinance to require sediment and erosion controls, as well as sanctions to ensure compliance meeting the requirements of the SMS4 NPDES permit.	30-Jun-17 1-Jan-18	Once During Permit Term	Lancaster County Council	
Measurable Goal:				
Ordinance and regulations adopted by County Council				

Plan Review	Not Started:	✓	In Progress:		Completed:
	Section: 4.2.4.5				
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party		
Implement site plan review procedures meeting the minimum requirements of the SMS4 NPDES permit.	30-Jun-17 1-Jan-18	Once During Permit Term	Lancaster County Public Works		
Measurable Goal:					
Written procedures/checklists for plan review and permitting					
Construction Site/Inspection Inventory	Not Started:	✓	In Progress:		Completed:
	Section: 4.2.4.6				
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party		
Lancaster County will develop an inventory system for permitted site work. The inventory will be edited to include information for: <ul style="list-style-type: none">• Relevant contact information;• The size of the project;• Area of disturbance;• Number of inspections by Lancaster County for each construction site; and,• Inspection results and enforcement actions.	Ongoing	Annually	Lancaster County Public Works		
Measurable Goal:					
Create database for tracking site/inspection information					

ERP For Construction Activities	Not Started:		In Progress:	✓	Completed:	
	Section: 4.2.4.7					
Milestone(s)	Schedule/Deadline		Frequency	Responsible Party		
Develop enforcement responses for permit violations, SWPPP violations, and EPSC BMP installation, operation, and maintenance violations.	30-Jun-17 1-Jan-18		Once During Permit Term	Lancaster County Public Works		
Measurable Goal:						
Develop ERP for construction activities						
SMS4 Staff Training	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.4.8					
Milestone(s)	Schedule/Deadline		Frequency	Responsible Party		
Lancaster County will send staff responsible for construction site inspections to SCDHEC sponsored CEPSCI training.	30-Jun-17 1-Jan-18		Once During Permit Term	Lancaster County Public Works		
Measurable Goal:						
Staff responsible for inspections CEPSCI certified						
Construction Operator Training/Education	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.4.9					
Milestone(s)	Schedule/Deadline		Frequency	Responsible Party		
Lancaster County will develop informational packets targeted to reach both commercial and residential construction operators.	Ongoing		Annually	Lancaster County Public Works		
Measurable Goal:						
Develop information packet for contractors						

4.2.5 Post Construction Stormwater Management (Minimum Measure #5)

4.2.5.1 Permit Requirements

Permittees shall implement a program to control stormwater discharges from new development and redeveloped sites that disturb at least one acre (including projects that disturb less than one acre that are

part of a larger common plan of development or sale). The post construction stormwater management program will be designed to give Lancaster County the authority to require structural and non-structural stormwater quality BMP's on sites being developed. The County will provide design requirements to control stormwater discharges from new development and redeveloped sites and will establish performance standards for addressing the first inch of runoff. The County will improve the post construction program by ensuring post construction BMP's are inspected and maintained.

Table 13: Minimum Measure #5 Permit Requirements

4.2.5.1 Post-Construction Stormwater Management Program:
Lancaster County will provide design requirements to control stormwater discharges from new development and redeveloped sites in the Stormwater Ordinance. The County will require an "Erosion and Sediment Control Permit" for any development which disturbs 10,000 square feet or more. The County will require a "Minor Stormwater Permit" with applicable design requirements for sites that disturb between 1-2 acres. The County will require a "Major Stormwater Permit" with applicable design requirements for sites that disturb greater than 2 acres.
4.2.5.2 Site Performance Standards:
Lancaster County will establish post construction site performance standards to address the first inch of runoff. Site performance standards for addressing the first inch of runoff will be located in the Stormwater Ordinance section "Performance Standards". Lancaster County may develop additional site performance standards during the permit term. The Stormwater Ordinance will be updated to include newly established performance standards.
4.2.5.3 Site Plan Review:
Site performance standards for requirements to address the first inch of runoff will be included in the County's plan review checklist. Plan review for site performance standards developed during the permit term will be added to the plan review checklist.
4.2.5.4 Long-Term Maintenance of Post-Construction Stormwater Control Measures:
Structural stormwater control measures installed and implemented to meet the site performance standards will be maintained in perpetuity. The County will ensure the long-term maintenance of structural stormwater control measures installed based on the requirements within the stormwater ordinance.
The County will require stormwater control measures to be maintained in perpetuity by requiring property owners to sign a Permanent Stormwater Facility Maintenance and Responsibility Agreement forms.

4.2.5.5 Inventory of Post-Construction Stormwater Control Measures:
Lancaster County will maintain an inventory of post-construction structural stormwater control measures installed and implemented at new development and redeveloped sites, including both County permitted public and private sector sites located within the permit area. At a minimum, the inventory will contain BMP constructed since the effective date starting with the effective date of this permit.
4.2.5.6 Inspections And Enforcement:
4.2.5.6.1 Inspection Procedures:
To ensure that stormwater control measures are operating correctly and are being maintained as required consistent with its applicable maintenance agreement, Lancaster County will conduct inspections of each project site covered under the performance standards listed in the Stormwater Ordinance, at least one time during the permit term. A description of inspection procedures will be added to the SWMP once developed.
4.2.5.6.2 Post-Construction Notification:
Within 30 days of completion of construction of project required to meet the performance standards, Lancaster County will conduct a post construction inspection to verify that BMP's have been installed as per approved plans. The SCDHEC Notice of Termination form will serve as notification to the County of construction completion.
4.2.5.6.3 Inspection Reports:
Lancaster County will document its inspection findings in an inspection report. The County will document and maintain records of inspection findings and enforcement actions and make them available for review by the permitting authority.

4.2.5.2 BMP Implementation

Evaluation of the success of this minimum measure will be through careful analysis of the Measurable Goals for each BMP included in this minimum measure. Measurable Goals for each BMP were selected by formulating attainable goals for the various BMP implementation steps or tasks. The following sections describe the components of Lancaster County's Post-Construction stormwater management program:

Table 14: Best Management Practices – Minimum Measure #5

POST CONSTRUCTION RUNOFF BMPS						
Post-Construction Stormwater Management Program	Not Started:		In Progress:	✓	Completed:	
	Section: 4.2.5.1					
Milestone(s)	Schedule/Deadline		Frequency		Responsible Party	
Adopt an ordinance and other regulatory mechanism to prevent or minimize water quality impacts to the MEP.	30-Jun-17 1-Jan-18		Once During Permit Term		Lancaster County Council	
Measurable Goal:						
Ordinance and regulations adopted by County Council						
Site Performance Standards	Not Started:		In Progress:	✓	Completed:	
	Section: 4.2.5.2					
Milestone(s)	Schedule/Deadline		Frequency		Responsible Party	
Develop and implement site performance standards for permanent water quality BMP's to attenuate post development runoff and to treat the first 1" of rainfall.	30-Jun-17 1-Jan-18		Once During Permit Term		Lancaster County Public Works/Council	
Measurable Goal:						
Ordinance and regulations adopted by County Council						

Site Plan Review	Not Started:		In Progress:	✓	Completed:	
	Section: 4.2.5.3					
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party		
Implement site plan review procedures meeting the minimum requirements of the SMS4 NPDES permit.	30-Jun-17 1-Jan-18	Once During Permit Term		Lancaster County Public Works		
Measurable Goal:						
Written procedures/checklists for plan review and permitting						
Long Term Maintenance of BMPS	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.5.4					
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party		
Develop ownership and maintenance program for operators of permanent BMP's to ensure perpetual maintenance. Include provisions in the stormwater ordinance for requirements and enforcement.	30-Jun-17 1-Jan-18	Once During Permit Term		Lancaster County Public Works		
Measurable Goal:						
Create legally binding permanent maintenance documents						
Post Construction BMP Inventory	Not Started:	✓	In Progress:		Completed:	
	Section: 4.2.5.5					
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party		
Develop data base for tracking post construction BMP's to include regular inspections with status of controls.	30-Jun-17 1-Jan-18	Once During Permit Term		Lancaster County Public Works		
Measurable Goal:						
Development and implementation of data base						

Post Construction BMP Inspections	Not Started:	✓	In Progress:	Completed:
	Section: 4.2.5.6			
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party	
Develop procedures and forms for post construction BMP installation inspections. Develop procedures and forms for post construction BMP maintenance inspections.	30-Jun-17 1-Jan-18	Once During Permit Term	Lancaster County Public Works	
Measurable Goal:				
Development of procedures for post construction BMP inspections				

4.2.6 Pollution Prevention/Good House Keeping (Minimum Measure #6)

4.2.6.1 Permit Requirements

Permittees shall develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations as an integral part of the SWMP. In order to meet the requirements of Minimum Measure #6, Lancaster County will implement a range of BMP's targeted to reduce pollutants from County owned facilities and storm sewer systems within the regulated area. An inventory of major municipal facilities will be developed, and each facility will be assessed for the potential pollutant discharges. Based on the assessment, a list of high priority facilities will be developed, and annual inspections will be conducted at the high priority facilities. The County will prioritize their owned and/or operated stormwater management systems and implement a maintenance schedule. County owned structural controls (stormwater BMP's) will be inspected and maintained. In addition, the County will develop a set of pollution prevention measures for operation and maintenance activities. The County will provide training to appropriate employees to ensure pollution prevention and good housekeeping activities are practiced.

Table 15: Minimum Measure #6 Permit Requirement

4.2.6.1 Development of A Municipal Facility And Stormwater Control Inventory:
<p>Lancaster County will prepare and maintain an inventory of significant County-owned stormwater controls within the SMS4 that are not covered under a separate general or individual NPDES permit (i.e. industrial, solid waste, etc.).</p> <p>The County will also include a list of industrial facilities owned or operated by the County within the SMS4 that are subject to SCDHEC NPDES General Permit for Stormwater Discharges associated with Industrial Activity (SCR000000) or individual NPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge to the County's SMS4. The SCDHEC permit number or a copy of the Industrial NOI form for each facility will be included.</p>
4.2.6.2 Municipally-Owned or Operated Facility Assessment:
4.2.6.2.1 Comprehensive Assessment of Pollutant Discharge Potential:
<p>Lancaster County will develop an assessment of County-owned or operated facilities identified in Part 4.2.6.1 at least once during the permit term and include it in the permit reapplication for their potential to discharge pollutants in stormwater.</p>
4.2.6.2.2 Identification of High Priority Facilities:
<p>Lancaster County will identify "high-priority" facilities that have a high potential to generate stormwater pollutants.</p>
4.2.6.2.3 Documentation of Comprehensive Assessment Results:
<p>Lancaster will document the results of the assessments and maintain copies of site evaluation checklists used to conduct the comprehensive assessment. The documentation will include the results of The County's initial assessment, identified deficiencies and corrective actions taken.</p>
4.2.6.3 Annual Comprehensive Inspections of High Priority Facilities:
<p>Starting no later than 24 months from the effective date of coverage and at least once per year thereafter, a comprehensive inspection of "high priority" facilities (Part 4.2.6.2.2), including stormwater controls, be performed by Lancaster County. Specific attention will be given to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar potential pollutant-generating areas. The yearly inspection results will be documented and records will be maintained by the County. The inspection report will also include identified deficiencies and the corrective actions taken to fix the deficiencies.</p>
4.2.6.4 Storm Sewer System Maintenance Activities – MS4 Maintenance:
4.2.6.4.1 Assessment/Prioritization of SMS4 Stormwater Management Systems/Structures:
<p>Lancaster County will prioritize their owned and /or operated stormwater management systems / structures and implement a maintenance schedule.</p>

4.2.6.4.2 Municipal Activities and Operation:
Lancaster County will develop a set of pollution prevention measures that, when applied during municipal O&M activities, will reduce the discharge of pollutants in stormwater. Municipal operation and maintenance activities to be considered include but are not limited to; pavement and rights-of-way maintenance, bridge maintenance, cold weather operations, and municipally sponsored events.
4.2.6.4.3 Maintenance of Municipally-Owned and/or Maintained Structural Stormwater Controls:
Lancaster County will inspect and maintain, wherever and whenever necessary, County-owned or maintained structural stormwater controls.
4.2.6.5 Employee Training and Education Requirements:
Lancaster County will develop an periodic employee training program for appropriate employees involved in implementing pollution prevention and good housekeeping practices. This training will include a general stormwater education component, new technologies, operations, or responsibilities that arise during the year and the SMS4 general permit requirements that apply to the staff being trained. A description of how the program will be maintained for review by the permitting authority. The County will also identify and track personnel requiring and receiving training. Records must be maintained. Training will begin within the first year from the effective date of permit authorization.
4.2.6.6 Requirements for Contractor Oversight:
Contractors hired by Lancaster County to perform municipal maintenance activities will be contractually required to comply with the County's stormwater control measures, good housekeeping practices, and facility-specific stormwater management procedures.
The County will provide oversight of contractor activities to ensure that contractors are using appropriate control measures and procedures.

4.2.6.2 BMP Implementation

Evaluation of the success of this minimum measure will be through careful analysis of the measurable goals for each BMP included in this minimum measure. The following sections describe the components of the County's pollution prevention/good housekeeping for municipal operations program:

Table 16: Best Management Practices – Minimum Measure #6

POLLUTION PREVENTION/GOOD HOUSEKEEPING BMPS				
Operation and Maintenance Program	Not Started:	✓	In Progress:	Completed:
	Section: 4.2.6.1			
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party	
Develop municipal facility and stormwater control inventory. Include municipal facilities that are covered under separate NPDES permits.	30-Dec-17 1-Jan-18	Once During Permit Term	Lancaster County Public Works	
Measurable Goal:				
List of facilities municipally owned and or operated within the SMS4				
Municipal Facility Assessment	Not Started:	✓	In Progress:	Completed:
	Section: 4.2.6.2			
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party	
Create an evaluation checklist that will be used to conduct the comprehensive assessment. Conduct assessment based on type of facility/use, locations to waterbody, BMPs to rank facilities, and other factors. Based on the results of the assessment, identify high priority facilities and document results.	30-Dec-17 31-Dec-18	Once During Permit Term	Lancaster County Public Works	
Measurable Goal:				
Evaluation checklist for facility assessment				
Identify high priority facilities				
Documentation of results				

Conduct High Priority Facility Inspections	Not Started:	✓	In Progress:		Completed:
	Section: 4.2.6.3				
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party	
Create a high priority facility inspection report template with sections for identified deficiencies and corrective action taken for each site inspection. Conduct annual high priority facility site inspections. Document inspection results.	30-Dec-17 31-Dec-18	Once During Permit Term		Lancaster County Public Works	
Measurable Goal:					
High priority facility inspection form					
Conduct annual inspections					
Document annual inspections					
Storm Sewer System Maintenance Activities	Not Started:	✓	In Progress:		Completed:
	Section: 4.2.6.4				
Milestone(s)	Schedule/Deadline	Frequency		Responsible Party	
Prioritize stormwater management systems / structures. Implement a maintenance schedule for stormwater management systems/structures. Develop written set of pollution prevention measures for municipal operation and maintenance activities. Create a structural control inspection and maintenance form. Conduct inspections for County owned structural controls. Perform necessary maintenance.	30-Dec-17 31-Dec-18	Once During Permit Term		Lancaster County Public Works	
Measurable Goal:					
Structural control inspection and maintenance form					
Conduct inspections of County owned structural controls					
Conduct maintenance of County owned structural controls					
Document inspection and maintenance.					

Employee Training and Education	Not Started:	✓	In Progress:	Completed:
	Section: 4.2.6.5			
Milestone(s)	Schedule/Deadline	Frequency	Responsible Party	
Develop an annual employee training program for employees involved in pollution prevention and good housekeeping practices. Provide training annually.	30-Dec-17 31-Dec-18	Once During Permit Term	Lancaster County Public Works	
Measurable Goal:				
Written pollution prevention employee training program				

4.5 Reviewing and Updating Stormwater Management Plans

This SWMP is a living document and will be updated and revised throughout the permit term. In accordance with Section 4.5.2 of the SMS4 general permit, additions (but not subtracting or replacing components) to the SWMP may be made at any time with a written notification made to SCDHEC.

Changes intended to replace an ineffective or unfeasible BMP with an alternate BMP may be requested and submitted in written form to SCDHEC at any time. Unless denied by SCDHEC, changes proposed in accordance with the criteria below will be deemed approved and may be implemented 60 days from submittal of the request. If request is denied, SCDHEC will send Lancaster County a written response giving a reason for the decision. The modification requests must include the following:

- An analysis of why the BMP is ineffective or infeasible (including cost prohibitive);
- Expectations on the effectiveness of the replacement BMP; and,
- An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced.

Additionally, SCDHEC may request the County to make changes to the SWMP at any time to:

- Address documented impacts on receiving water quality caused, or contributed to, by discharges from the SMS4;
- Include more stringent requirements necessary to comply with new Federal statutory or regulatory requirements; or,
- Include such other conditions deemed necessary by the Department to comply with the goals and requirements of the Clean Water Act;
- Changes requested by SCDHEC must be made in writing, set forth the time schedule for the County to develop the changes, and offer the County the opportunity to propose alternative plan changes to meet the objective of the requested modification. Changes required by SCDHEC will be made in accordance with South Carolina Water Pollution Control Permits Regulation 61-9 124.5, 122.62, or as appropriate 122.63.

5.0 Monitoring, Record Keeping, and Reporting

Unless DHEC requires more frequent reports, reports will be submitted based on the following schedule:

1. The first annual report must be submitted to the permitting authority fourteen (14) months after the effective date of permit coverage.
2. Subsequent annual reports shall be submitted every twelve months for the scheduled date of the first submittal.
3. The last annual report shall be submitted, as part of re-notification, 180 days prior to expiration date of the permit.
4. While, and if the expired permit is continued, reports are due every year on the anniversary date of the expired permit.

All reports shall be sent to the address below unless the Department instructs permittees to submit via alternate mechanisms (i.e. electronic mechanisms):

SCDHEC Bureau of Water
Water Pollution Compliance & Enforcement
2600 Bull Street
Columbia, SC 29201-1708

All reports will include:

- The status of the County's compliance with permit conditions, an assessment of the appropriateness of the identified BMP's under Part 4, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, and the measurable goals for each of the minimum control measures;
- Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the plan at reducing the discharge of pollutants to the MEP;
- A summary of the stormwater activities the County plans to undertake during the next reporting cycle (including an implementation schedule);
- Proposed changes to the County's SWMP, including changes to any BMP or any identified measurable goals that apply to the program elements; and,
- Notice that the County is relying on another entity to satisfy some of the County's permit obligations (if applicable);

Doc #1: Summary

See frequently asked
Questions Doc #2 and
Outline of typical tasks
Document #3 for additional
Information.



Summary information concerning Lancaster County, SC: Panhandle Stormwater Utility

Issue:

When the U.S. Census Bureau defined the Charlotte Urbanized area, it included Indian Land. Therefore, the Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (DHEC) have mandated Lancaster County panhandle participation in the National Pollution Discharge Elimination System (NPDES), Municipal Separate Storm Sewer System (MS4) program. The panhandle MS4 boundaries include 58.3 square miles of land generally bounded by Highway 5 on the south, the N.C. border on the north and east, and York County on the west as a regulated Small Municipal Separate Storm Sewer System (SMS4). Although Van Wyck is not presently as populated as Indian Land it is included in the SMS4 boundaries because Van Wyck will likely experience increased growth in the future and it also contains "sensitive" waters.

Background:

The EPA established the NPDES, program to implement the Clean Water Act (CWA), of 1972. It was originally applied to "point source" pipe discharges from waste water treatment plants. The 1987 amendments to the Clean Water Act created an unfunded mandate for local communities to reduce pollution in stormwater runoff. This unfunded mandate is known as the NPDES Municipal Separate Storm Sewer System (MS4) program. The NPDES MS4 program was first implemented in large (>250,000 population) municipal stormwater operations in 1993. The DHEC administers the NPDES program in South Carolina. Each regulated community with a MS4 has a specific permit with DHEC. All regulated communities are required to comply with the program or risk fines and penalties as well as losing all federal assistance for improvements to roads, bridges, airports, disaster relief, flood insurance and recovery, etc.

Unique community program requirements and constraints:

There are many aspects to local community compliance with the NPDES SMS4 program, which can be broadly grouped into six general categories: 1. Public education and outreach, 2. Public participation and involvement, 3. Illicit Discharge Detection and elimination, 4. Construction Site runoff control, 5. Post-Construction site runoff control, 6. Pollution Prevention/ Good Housekeeping. Each of these six program goals require specific steps and objectives for compliance with DHEC and EPA regulations.

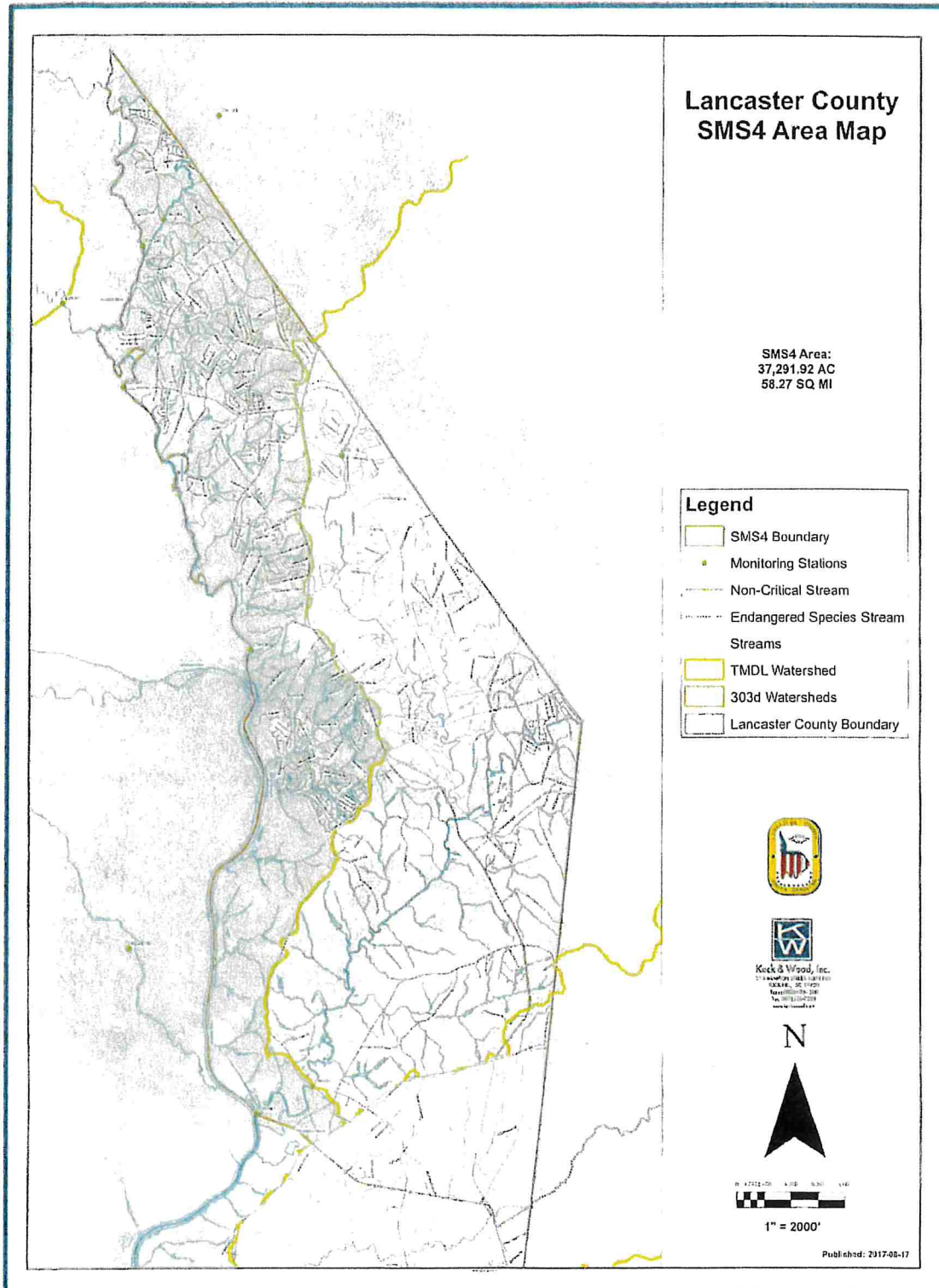
All water bodies in the panhandle are considered "sensitive" per SCDHEC and EPA criteria. These include:

- McAlpine Creek and Sugar Creek which have high levels of Eschericia Coli (ECOLI), and decreased microinvertebrate (BIO) levels. The Catawba River is also impacted by increased ECOLI levels all of which are included on the 2016 DHEC 303d impaired waters list.
- Six Mile Creek, Twelve Mile Creek, and Waxhaw Creek are on a Total Maximum Daily Load (TMDL) restriction for fecal coliform discharge. Lancaster County must implement specific measures to limit fecal coliform releases in these watersheds to improve the water quality in these creeks which are located within the new SMS4 boundary.
- Indian Land and Van Wyck both contain critical habitat for the Carolina Heelsplitter, which is an endangered species of mussel. These mussels require cool and clean streams to survive and thrive.

A stormwater utility program will enable the County to take a proactive approach to stormwater management. By establishing a dedicated funding source through stormwater fees, the County can ensure that revenue required to manage and maintain this important system is available. The fees will support a comprehensive stormwater management plan to minimize pollution and maximize safety through reduced flooding.

Doc #1: Summary

See frequently asked
Questions Doc #2 and
Outline of typical tasks
Document #3 for additional
Information.



**Doc #2 Frequently
Asked Questions**

See Summary Doc #1 and
Outline of typical tasks
Doc #3 for additional
Information.



Frequently Asked Questions:

Panhandle Stormwater Utility

Why is Lancaster County implementing a Stormwater Utility?

Lancaster County is responding to a state and federal mandated law and there are no other available resources to fund this program. Lancaster County does not want to cut service to other programs and shift resources to absorb the costs. Stormwater Utilities have been used by most local government agencies to fund their National Pollutant Discharge Elimination System NPDES Municipal Separate Storm Sewer System MS4 programs. It is not a tax, but a user fee. Property owners within the limits of the new panhandle Small Municipal Storm Sewer System (SMS4) will pay an equitable rate. The County is responsible for managing all aspects of stormwater within its jurisdiction. The County owns, operates, and maintains drainage facilities within the public right-of-way along County roads. The County does not own or maintain drainage facilities that are on private property and/or under the jurisdiction of other entities, (i.e., SC Department of Transportation, City of Lancaster).

How does the County currently pay for its stormwater system?

Storm sewer system improvements and maintenance has historically come from the general fund where various needs and services compete for funding each year in the budget process. The general fund includes, police, fire, roads, bridges, and other critical services the County provides. The County has done a good job managing the storm sewer system on a very limited budget, but the new requirements will far exceed the previous storm sewer expenditures. Storm water funding has historically been a lower priority than other urgent life safety needs. The Stormwater Utility will create a separate fund to meet the new regulatory requirements and will not be used for other purposes.

What is the difference between: Stormwater/ Potable Water/ Wastewater?

- Stormwater is the fraction of rainfall or snow melt that does not infiltrate into the ground, is not taken up by vegetation, or evaporate which becomes "runoff" that flows downhill. Stormwater is NOT treated or cleaned in any way, it simply flows back to the downstream surface water body.
- Potable water or drinking water is what comes out of the faucets and is used for drinking, bathing, washing, etc. Public potable water systems are treated and chlorinated to minimum health standards and distributed in pressurized systems to customers. The system pressure minimizes potential contamination and is a customer convenience. Potable water system pressure is typically set and maintained in elevated water storage tanks.
- Wastewater is composed of the drainage from residential and commercial plumbing system drains. After potable water is used and washed down the drain, it becomes wastewater. Public wastewater collection systems flow to a Wastewater Treatment Plant, typically adjacent to a river, where it is treated and cleaned to minimum standards and released back into the river.
- Stormwater, potable water, and wastewater are different in composition and are all conveyed in completely separate and distinct systems.

Doc #2 Frequently Asked Questions

See Summary Doc #1 and Outline of typical tasks Doc #3 for additional Information.



Do urban environments change stormwater runoff?

Yes, urban runoff is typically much more polluted than runoff in undisturbed/natural landscapes. In natural undisturbed areas, the soil absorbs much of rainfall and deep rooted plants help break up the ground to hold the moisture in the soil. These undisturbed soils act as a soil sponge which may be up to 15 feet deep. The soil sponge in urban environments is typically only a few inches deep as most turf grass root systems are less than 4 inches deep. In urban environments, two potential hazards are created:

- Flash flooding from fast runoff during or after a rain.
- Increased pollution loads to adjacent receiving water bodies because pollutants are easily washed off of the urban landscape.

Impervious surfaces such as rooftops, streets, sidewalks, and parking lots cannot easily absorb water. When a pollutant is spilled on an impervious surface, the residue stays there until the next rain washes it away. Stormwater runoff during and after a rain storm can wash sediment, oil, grease, toxins, metals, pathogens, detergents, pesticides, fertilizers, and other pollutants into nearby water bodies. Stormwater runoff receives NO treatment prior to discharge back into the environment. These pollutants reduce the recreational use of waters and adversely affect the health and biological diversity of the fish and wildlife living in and around our streams, ponds, and lakes. The initial runoff associated with the first rainfall of 1-inch or less is known as the "first flush" because it picks up and carries the latent pollutants which have been deposited on urban landscapes. The "first flush" typically contains the highest concentration of pollutants in the runoff event.

What is the purpose of the NPDES SMS4 Stormwater Program?

The purpose is to create a team of professionals working to improve quality of life by improving water quality and protecting our natural resources. The local Stormwater Utility team will also work to minimize flooding impacts and act as an environmental resource for the community. Another primary objective is to ensure the community is compliant with environmental regulations implemented by Environmental Protection Agency (EPA) and South Carolina Department of Health and Environmental Control (DHEC).

What is the Lancaster County, i.e. "Panhandle" Small Municipal Separate Storm Sewer System, (SMS4)?

A SMS4 is defined as the system of publically owned stormwater conveyances including roads, curbs, gutters, ponds, ditches, or pipes that discharge directly to surface waters. These SMS4 runoff systems are designed or used solely for collecting or conveying stormwater runoff. The SMS4 is not necessarily continuous, meaning that Lancaster County may own or control less than 5% of the Stormwater conveyance system. The public system may only be 50-feet long at a stream crossing under a roadway every few miles along a stream corridor. The balance of the conveyance system (stream) is on private property. However, Lancaster County is held responsible for any pollution release from the entire drainage area to the waters within the SMS4. These waters collect runoff from public and private lands.

Doc #2 Frequently Asked Questions

See Summary Doc #1 and
Outline of typical tasks
Doc #3 for additional
Information.



What are sensitive waters?

Sensitive Waters can be defined as clean waters which allow specific organisms to thrive or dirty waters impacted by various pollutants. Ironically, the Lancaster County panhandle SMS4 has both simultaneously. The stream habitat in Sixmile and Waxhaw creeks are recognized as supportive of the Carolina Heelsplitter which require clean shaded streams to survive and thrive. The Carolina Heelsplitter is an endangered species of mussel which has been found in Lancaster County. It is also noted that three streams within the SMS4 boundaries are listed on the EPA/DHEC 303d impaired waters list: Sugar Creek, McAlpine Creek, and the Catawba River. Three Streams within the SMS4 have a Total Maximum Daily Load (TMDL) established in 2005 for high levels of fecal coliform: Six Mile Creek, Twelve Mile Creek, and Waxhaw Creek.

Why is Lancaster County panhandle included in the NPDES SMS4 program?

EPA/DHEC used a "balanced criteria" of the following six designation factors:

- Discharge to sensitive waters
- High population density
- High growth or growth potential
- Contiguity to an Urbanized Area
- Significant contributor of pollutants to waters of U.S.
- Ineffective protection of water quality concerns by other programs

The Lancaster County Panhandle SMS4 watershed meets all criteria noted above.

Why is Van Wyck in included in SMS4 program?

Lancaster County submitted a proposed SMS4 service to DHEC of 13.85 square miles of densely populated areas or other areas poised for development. Most of Van Van Wyck was omitted from the SMS4 service area. This smaller service area proposal was not accepted by SDHEC. The current 58.3 square mile SMS4 boundary north of Highway 5 was set by state and/or federal agencies considering the "balanced criteria" factors noted above.

DHEC already oversees stormwater in the panhandle, why do we need a new utility?

The NPDES SMS4 program has not been in place in Lancaster county. It is new to Lancaster County and comes with many new requirements, see "typical tasks and activities" attachment. The state of SC has mandated that this program be in place and that Lancaster County manage it. The DHEC has multiple jurisdictions to oversee and they have many other projects to observe. DHEC will remain the stormwater inspection/observation service for the approximate 500 square miles of rural areas in Lancaster County below the panhandle.

The Army Corps of Engineers and DHEC are responsible for creating and enforcing the guidelines for proper development. Why do we need a panhandle Stormwater Utility?

State and federal agencies primary mandate is to develop the environmental regulations. In rural areas that do not have staff and or resources to implement regulations they will provide minimal assistance. However, in urbanized areas state

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and federal agencies mandate the primary responsibility for implementation of state and federal regulations be placed on local jurisdictions. The state of SC has mandated that this program be in place and that Lancaster County manage it.

How will the money collected by the Stormwater Utility be used?

The revenues generated by this fee will be used to fund all stormwater related activities in the panhandle SMS4 service area. This includes protection of environmental resources, plan review, observation of construction projects, planning for future impacts, maintenance and repairs of stormwater system infrastructure, design and construction of capital improvement projects, or stream buffer property acquisitions. The fee will also pay for compliance with the NPDES SMS4 program requirements per state and federal regulations. In general terms, program compliance means implementation of six minimum control measures:

1. Public Outreach and Education
2. Public Participation and Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management
6. Pollution Prevention and Good Housekeeping (Municipal Operations)

Each of the six program areas require an implementation plan and ongoing monitoring of Best Management Practices (BMP) to achieve the program goals. The County is held responsible for water quality of streams within the SMS4 jurisdiction as designated by state and federal agencies.

What is a Stormwater Management Plan (SWMP)?

A Stormwater Management Plan is the documented plan developed by the regulated agency (Lancaster County) to meet the requirements of the NPDES SMS4 program. The SWMP outlines the specific measures and implementation schedule the jurisdiction will use to comply with the MS4 program. Each regulated MS4 community has a separate and distinct SWMP tailored for the specific community.

What are Best Management Practices (BMPs)?

Best Management Practices are various techniques used to meet goals in the stormwater management plan (SWMP). BMPs may be physical barriers like silt fences, detention ponds, or vegetative buffers to minimize silt and sediment loss from a construction site. BMPs may also be distribution of educational flyers to meet public education requirements. Lancaster County will have to implement a BMP of staff training to improve our environmental stewardship which is part of compliance with the Good Housekeeping goal.

When does the program begin?

It has already begun. The US Census Bureau included Indian Land within the Charlotte Urbanized area in the **2010** Census, Lancaster County has been in negotiations with DHEC since **2013** concerning the SMS4 designation, geographic boundaries, and SWMP implementation schedule. The time for implementation is now. Lancaster County has already

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met many of the permit requirements by utilizing professional consultants since **2014** to prepare numerous background documents necessary for permit compliance. The passing of Unified Development Ordinance (UDO) in **2016** includes many provisions necessary for permit compliance. The employment of a County Engineer in **2017** to begin daily implementation and maintenance of the program. Additional staff and resources will be required as the program responsibilities increase to comply with the DHEC implementation schedule. At this point, it only affects Panhandle residents, therefore only panhandle property owners will be assessed the fee. Similar programs are in place in urbanized areas all over America.

Is Lancaster County responsible for pollutants generated in North Carolina?

No, we are not responsible for cleaning pollutants generated in another state. However, we may be required to take background samples at the state line and downstream to ensure that we are not adding to the pollutant levels entering our panhandle SMS4 jurisdiction.

Do other cities/counties have a stormwater fee?

Yes, more than 38 other cities and/or counties in South Carolina and 71 in North Carolina have a stormwater utility fee. There are estimates of 2,500 utilities nationwide. Regionally the following communities have stormwater fees: Fort Mill, Rock Hill, Tega Cay, Monroe, Matthews, Indian Trail, and Mecklenburg County.

What is impervious area?

Impervious surface area is any surface that does not readily absorb water and impedes the natural infiltration of water in to the soil. This includes roofs, driveways, packed gravel, etc.

What is the basis for the stormwater fee charged?

The stormwater utility fee is based on the amount of impervious surface on your property. The majority of Stormwater Utilities use impervious areas as an equitable way to set fees. Customers pay a fee related to the amount of runoff generated from their property. Impervious surfaces generate runoff at a much higher rate than undisturbed land.

Are tax exempt properties exempt from the stormwater fee?

No, because it is a fee not a tax. Taxes are based on property value, the stormwater fee is assessed based on impervious surface. The runoff generated from impervious surfaces contributes significantly to pollution and flooding problems.

How will fees be determined?

All single family residential properties will be billed based on one Equivalent Residential Unit (ERU). A ERU is set as 3,500 square feet of impervious area. The 3,500 square feet average was determined by taking a representative sample of single family residential properties in the Lancaster County panhandle and measuring the impervious surfaces based on aerial photography. The non-single family residential property (NSFR) fees are based on individual measurement and

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analyses. The impervious area for each NSFR was divided by 3,500 sq. ft. to determine the number of equivalent ERUs the property contains. The ERU is presently set at \$60 annually to cover minimum SWU efforts required to comply with new regulations in the panhandle of Lancaster County. The number of ERUs was multiplied by current ERU fee to determine an annual fee. There is a fee cap of 35% of annual taxes for NSFR. The fee is included along with annual tax billing invoices.

Will developers be required to pay stormwater fees?

The development community will be required to pay a DHEC review fees of \$125 per project. Lancaster County will also charge a plan review fee based on project disturbed acres.

I pay Home Owners Association (HOA) dues which include storm ponds, why do I have to pay the new fee?

The HOA dues include many other things in addition to storm detention/retention pond maintenance. Sediment ponds built for construction runoff conditions generally do not improve water quality in post-construction conditions. Some poorly designed, constructed, or maintained ponds do not have much runoff peak attenuation capabilities and may be a pollutant source rather than sink.

We already pay state and federal taxes for roads and stormwater, why do we need to pay additional fees for panhandle residents only?

Everyone pays taxes and fees for services rendered. When living in an urbanized area, additional fees and taxes are charged for specific services. For example, the LCWSD charges fees for water supplied and waste water removed from buildings. The wastewater obviously contains pollutants which need to be treated. In like manner, stormwater discharged from an urbanized area also contains unseen pollutants which are harmful and need to be minimized. Minimizing these pollutants is the primary objective the new panhandle SW utility.

Why do I have to pay when I do not have any drainage problems?

We all contribute to stormwater pollution. Everyone in the panhandle SMS4 service area will benefit from a stormwater management program. When stormwater runs off urbanized property, it impacts the downstream environment. The County must have a program to maximize runoff water quality and minimize flooding. We all use roads that may have inadequate storm sewers beneath them. When the road culvert was designed and constructed years ago the contributing land use was much less urbanized. These land use changes overwhelm the old culverts which can create safety hazards that need to be corrected.

Are roadways exempt from fees?

Yes, roadways are exempt from impervious area fees. Roadways serve a public function and are shared infrastructure. Roadways are owned and maintained by municipalities and private groups. SCDOT holds an individual MS4 permit in South Carolina and they are required to comply with their permit limits.

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Why not hire a consulting firm on an as-needed basis to do this work?

The amount of effort necessary to implement the new program would be cost prohibitive to rely exclusively on consultants. Lancaster County has evaluated this possibility and spoken with consultants about this option. Consultants typically bill staff out at approximately three times their salaries. The county can hire direct employees much more cost effectively to meet the SMS4 regulatory goals. However, the stormwater utility budget does include a line item for specific tasks by consultants.

Where does our drinking water come from?

Lancaster County Water and Sewer District uses water from the Catawba River which is cleaned and treated then pumped into the pressurized system which serves the Lancaster County area. As the surface waters and groundwater supplies become more polluted, treatment to drinking water standards becomes more and more difficult and expensive. Groundwater supplies from private wells are subject to pollution impacts and most private wells do not receive any treatment prior to consumption.

What is the 303d list?

The 303d list refers to waterbodies for which obtained samples have failed minimum water quality criteria set out in section 303(d) of The Clean Water Act. The water bodies on the 303d list can only be removed if water quality improves. The 303d listed waters typically become Total Maximum Daily Load (TMDL) water bodies which require the local MS4 to implement corrective measures to limit the pollutant(s) of concern in the TMDL.

What is the Carolina Heelsplitter?

The Carolina Heelsplitter is a state, federal, and globally endangered species of freshwater mussel. It is a medium size mussel with an ovate trapezoidal shaped shell. The shell varies in color from greenish brown to dark brown. The Carolina Heelsplitter has been eliminated from the majority of its historic range. Only six small populations are known to exist. It has been found in Gills Creek and Waxhaw Creek in the panhandle of Lancaster County. Six Mile Creek contains habitat suitable for the Carolina Heelsplitter. This is the primary driving force for the mitigation fees required for development.

Who will determine the criteria necessary for correction of stormwater runoff issues?

The DHEC SMS4 permit, 303d listed impaired waters, TMDL streams, and the Carolina Heelsplitter all collectively determine the criteria necessary for correction. The implementation the NPDES SMS4 permit requirements will be the primary objective of the panhandle Stormwater Utility.

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What is sediment?

- Sediment is the fraction of soil that travels downstream and makes our streams reddish brown after a rain. It is typically the smaller particles that wash away which is also the reason they stay in suspension in the streams. Sediment is the number one pollutant by volume. Sediment fills up ponds/lakes and chokes out larva/eggs of aquatic organisms living in streams.
- More importantly, sediment is the vehicle most pollutants ride on. When a pollutant(s) is spilled on the ground, it can be chemically bound to the soil particles. When those soil particles are eroded sediment is washed downstream. The eroded soil particles (sediment) takes the pollutants with them.
 - Many chemicals have a long half-life meaning they can pollute streams/lakes for years after the pollutant source is gone.
 - Mercury in fish is an excellent example. We use very little mercury and it is now highly regulated, but it still concentrates in fish tissue today due to sediment deposits in the bottom of lakes which leach out trace amounts of mercury continuously.

How can I help protect our local water bodies?

- Don't dump anything down storm drains; oils, chemicals, paints, soaps, etc. pollute our streams and lakes.
- Use pesticides and fertilizers sparingly and always follow label instructions.
- Do not blow grass clippings into storm drains or throw into a nearby ditch.
- Put litter in its place, (trash or recycling containers)
 - If you throw it out of the car window, it generally ends up in the stream.
- Pick up after your pet.
- Keep livestock out of creeks
- Fix vehicle leaks & recycle used fluids.
- Have septic tanks and tile fields checked and/or serviced a minimum of every three years.
- Keep groundcover (plants or mulch) on bare soil.
- Sweep up dry spills, don't wash them away.
- Use professional car wash facilities or wash your car in grassy areas.

Where Can I get more information concerning the Lancaster County program and general program requirements?

www.scdhec.gov/Apps/Environment/PublicNotices/.../PDF/3318

<http://www.scdhec.gov/HomeAndEnvironment/Water/Stormwater/>

http://www.scdhec.gov/Environment/docs/Final_SSMS4_Permit.pdf

<https://www.scdhec.gov/Agency/docs/water-regs/r61-9.pdf>

<https://www.epa.gov/npdes/npdes-stormwater-program>

https://www.scdhec.gov/HomeAndEnvironment/Docs/tmdl_waxhaw_fc.pdf

<http://dnr.sc.gov/swap/supplemental/mussels/carolinaheelsplitter2015.pdf>

<https://www.fws.gov/endangered/map/state/SC.html>

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Typical Tasks

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Stormwater Utility timeline overview:

Year 1: Assessment of system and water quality parameters in SMS4 service area. Sampling of SMS4 service area to determine presence and/or absence of illicit discharge pollutants and sources.

Year 2: Planning required for necessary SMS4 system infrastructure and water quality improvements. Allocation of resources for planned improvements.

Year 3 and on-going: Implementation of projects and practices to improve quality of life for customers.

Proposed initial Stormwater Utility staff and responsibilities:

- Managing Engineer: Oversee implementation of permit and stormwater utility responsibilities. Analyses and design of upgrades to failing/undersized storm sewer infrastructure. Investigate customer concerns and inquiries and offer potential solutions for customers to consider. Implement a training program for Lancaster County field staff concerning good housekeeping measures for SMS4 compliance.
- Construction Observer: Ensure contractors utilize and maintain appropriate Best Management Practices (BMPs) to protect downstream property owners and water quality of our streams.
- Development Review Engineer: Assume responsibility of development review of erosion control and other engineering elements associated with infrastructure design and construction.
- Public Education & Outreach liaison: Gather public input concerning utility operations and goals. Establish social media forums to communicate with constituents. Pursue environmental education activities in community.
 - It is the intent that Stormwater Utility staff will be cross trained that all share responsibility to meet the goals of permit compliance and customer service.

Future SWU expansion:

Field crew: This crew would be responsible for inspection and assessment of existing infrastructure condition, system maintenance, and minor upgrades of the stormwater utility system within the SMS4 service area. They would also construct and maintain green infrastructure elements to improve water quality. The implementation of a field crew would require an investment in equipment.

Forester/limnologist: This individual would be focusing on design and implementation of elements and practices that improve water quality. They would be working closely with the public, engineering, contractors, and SWU field staff.

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Outline of typical tasks and activities associated with the Panhandle Stormwater Utility

There are many aspects of community compliance with the National Pollutant Discharge Elimination System (NPDES) and the Small Municipal Separate Storm Sewer System (SMS4) programs which can broadly be grouped into six general categories as follows:

1. *Public Education and outreach*
2. *Public participation and involvement*
3. *Illicit Discharge Detection and elimination*
4. *Construction Site runoff control*
5. *Post-Construction site runoff control*
6. *Pollution Prevention/ Good Housekeeping (Municipal Operations)*

Each of these six program goals require specific steps and objectives to meet compliance with requirements from the South Carolina Department of Health and Environmental Control and the federal Environmental Protection Agency. The tasks listed below will be implemented over several years and modified as necessary to meet specific panhandle land use and constituent needs. These measures, tasks, and activities are generally defined as Best Management Practices (BMPs) by the regulatory community.

Goal 1. Public Education and outreach:

- Current pollutants of concern within the SMS4 service area
 - SCDHEC 303d list pollutant: ECOLI, BIO
 - EPA Total Maximum Daily Load (TMDL) pollutant: Fecal Coliform
 - State & federal endangered species Carolina Heelsplitter pollutant: Sediment
- Identify target audiences to minimize pollutants of concern
- Develop a public outreach plan to minimize pollutants
 - Engage stakeholders in planning public outreach campaign
 - Create environmental educational materials for the target audiences
 - Distribute environmental materials to aid understanding of program goals
 - Provide guidance to property owners implementing water quality measures
 - Meet with property owners, HOAs, and civic groups
 - Provide materials for web page updates and expansions
- Assess and adjust public outreach program to fit needs of constituents, land use, and regulations

Goal 2. Public Participation and Involvement:

- Identify, support, participate and/or sponsor community events with booth emphasis on water quality
- Provide public access to SWMP information
- Solicit on-going public input on program objectives, requirements, and implementation

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Goal 3. Illicit discharge detection and elimination:

- Train Lancaster County field staff concerning illicit discharge detection and elimination
- Develop SMS4 system inventory maps/database with outfalls, public infrastructure condition, receiving waters, etc.
- Identify priority areas with potential illicit discharges
- Identify potential field screening locations
 - Conduct dry weather field screening for illicit discharges
- Develop illicit discharge tracking procedures
 - Conduct field tracking when a pollutant is discernable in receiving waters
 - Eliminate illicit discharges and document investigations and illicit discharge elimination
- Internal pipe cleaning and TV inspections by remote equipment to assess infrastructure condition and/or illicit discharge locations
- Adjust illicit discharge program to specific practices/parameters of concern

Goal 4. Construction site runoff control:

- Develop and adopt a stormwater ordinance
- Implement plan review of proposed development projects
- Specialized training for construction site observation staff
 - Construction site observation, inventory, and record keeping
- Develop enforcement response plans for non-compliant properties
- Establish and implement construction operator training requirements

Goal 5. Post-construction site runoff control:

- Develop a stormwater quality ordinance
 - Evaluate and update ordinances as necessary
- Develop site performance standards to minimize first flush impacts from developed land uses
- Site plan review to ensure water quality standards are considered
- Develop Post-Construction BMP inventory
- Post-construction BMP observations per water quantity and quality benefits
- Develop a long term maintenance plan for site BMPs (ponds, buffer strips, level spreaders, etc.)
- Take and analyze background and impacted water samples to focus restoration efforts

Goal 6. Pollution prevention/ good housekeeping:

- Assess all municipal operations facilities concerning potential pollutant discharges
- Train Lancaster County field staff including: sheriff, fire, inspections, code enforcement, maintenance, and vehicle shop in one or more of the following areas:
 - Illicit Discharge detection and elimination
 - Pollution Prevention/Good Housekeeping
 - Construction and post construction erosion control and water quality BMPs

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Typical Tasks

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Typical responsibilities which may be required of the Stormwater Utility:

1. Act as a resource in Engineering and environmental concerns
 - a. Develop and publish "fact sheets" on various environmental and water resource issues
 - b. Provide customer service response to citizen requests
 - c. Assistance to landowners for retrofit of water quality measures
 - d. Provide permitting and engineering assistance to Lancaster County departments
2. Establish and maintain an accurate Stormwater Utility billing database
3. Review all new site development plans in Panhandle for engineering and environmental concerns
4. Develop policies/practices for consideration by Lancaster County Council
5. Develop maintenance activities and inspection schedule for publicly owned BMPs
 - a. Pipes, headwalls, junction boxes, curb inlets, ponds, swales, green infrastructure, etc.
6. Establish a priority ranking system: repair/replace/ delay for inadequate storm drainage infrastructure
7. Evaluate/ design/ and observe storm sewer infrastructure Capital Improvement Projects, (CIP)
8. Design/administer stream bank stabilization/restoration projects
9. Design and observe construction of "silt saver" walls or other mechanisms to reduce storm system failures and minimize on-going maintenance requirements
10. Run HEC-RAS software on streams to evaluate cumulative impacts of development to floodplain / floodways.
 - a. Evaluate ultimate buildout in HEC-RAS model for watersheds in MS4 area to minimize flooding and assist in future land planning/zoning efforts
11. Evaluate methods of screening and/or removing "gross solids" (litter and rubbish) from panhandle waters
12. Act as program managers for Capital Improvement Projects for storm system improvement projects

Additional information concerning the Lancaster County SMS4 program:

www.scdhec.gov/Apps/Environment/PublicNotices/.../PDF/3318

<http://www.scdhec.gov/HomeAndEnvironment/Water/Stormwater/>

http://www.scdhec.gov/Environment/docs/Final_SSMS4_Permit.pdf

<https://www.scdhec.gov/Agency/docs/water-regs/r61-9.pdf>

<https://www.epa.gov/npdes/npdes-stormwater-program>

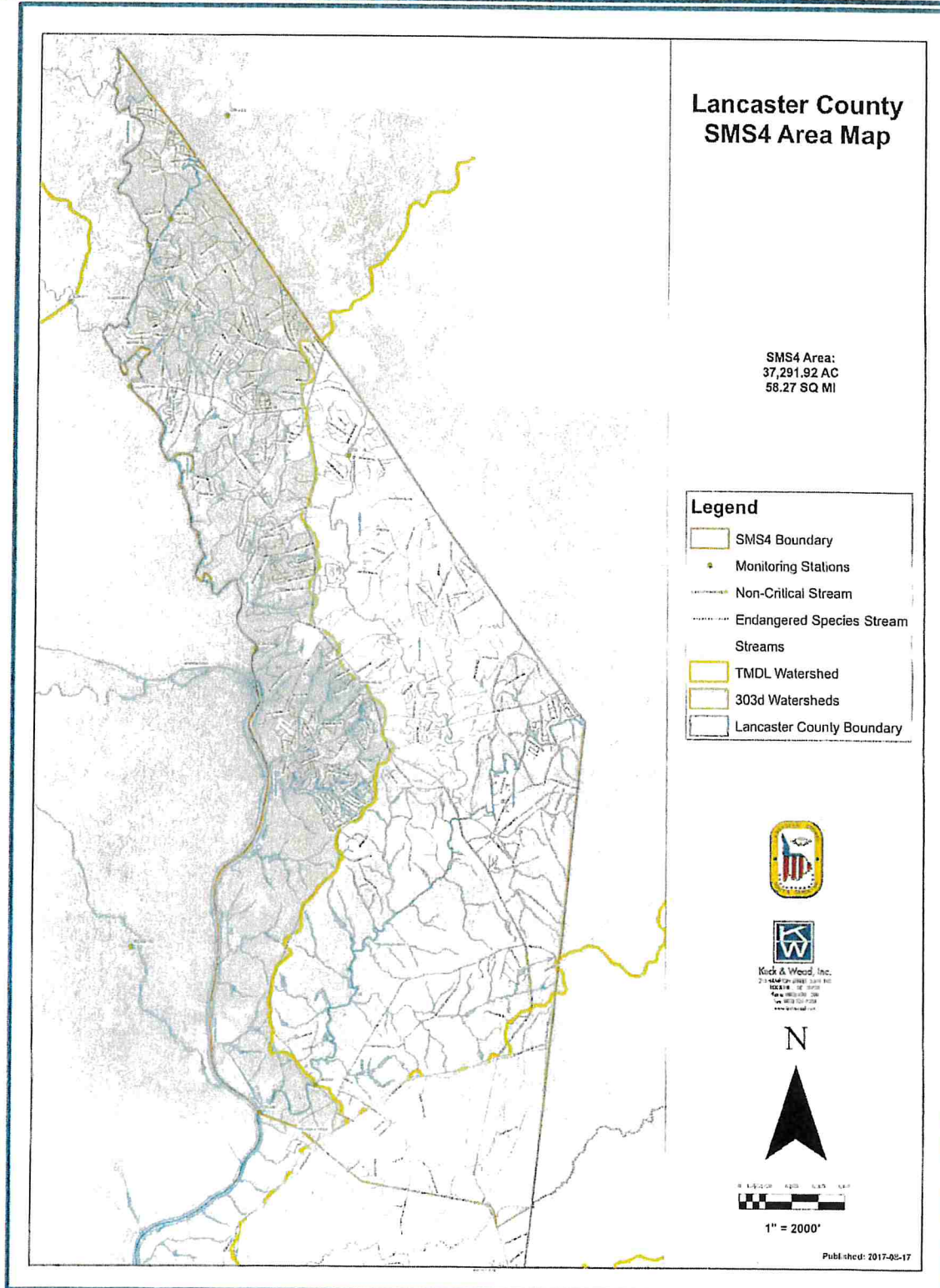
https://www.scdhec.gov/HomeAndEnvironment/Docs/tmdl_waxhaw_fc.pdf

<http://dnr.sc.gov/swap/supplemental/mussels/carolinaheelsplitter2015.pdf>

<https://www.fws.gov/endangered/map/state/SC.html>

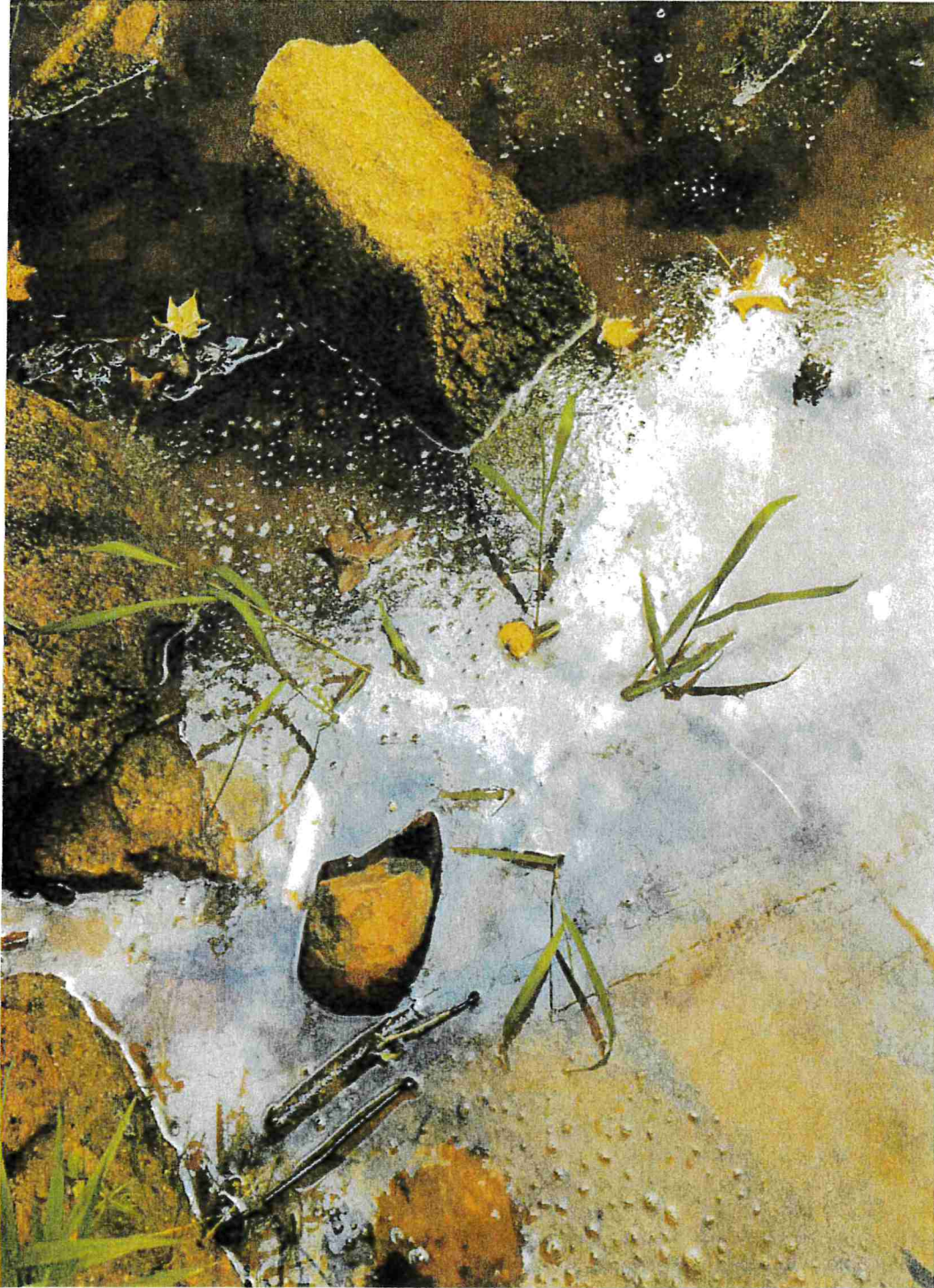
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Water quality of unnamed tributary of Sugar Creek @ Old Bailes Road on August 9th, 2017



2017 SEP 15 PM 2:12

STATE OF SOUTH CAROLINA

ORDINANCE NO.: 2017-1455

COUNTY OF LANCASTER

AN ORDINANCE

TO ESTABLISH THE LANCASTER COUNTY STORMWATER MANAGEMENT UTILITY, TO AMEND LANCASTER COUNTY'S UNIFORM DEVELOPMENT ORDINANCE (UDO) SO AS TO ADD THERETO THE TERMS, CONDITIONS AND PROVISIONS OF THE LANCASTER COUNTY STORMWATER MANAGEMENT UTILITY, INCLUDING A DETERMINATION OF THE GEOGRAPHIC BOUNDARIES SUBJECT TO THE UTILITY'S MANAGEMENT OVERSIGHT AND THE FEES ASSOCIATED THEREWITH.

WHEREAS, on November 28, 2016, Council passed ordinance 2016-1422, legislation that approved a new Uniform Development Ordinance; and

WHEREAS, Lancaster County is required by federal law [33 U.S.C. 1342(p) and 40 CFR 122.26] to obtain coverage under a National Pollutant Discharge Elimination System (NPDES) permit from the South Carolina Department of Health and Environmental Control (DHEC) for stormwater discharges as detailed in Exhibit A attached hereto and incorporated herein by reference as fully as if repeated verbatim; and

WHEREAS, the NPDES permit requires the County to impose controls to reduce the discharge of pollutants in stormwater to the maximum extent practicable using management practices, control techniques and system design and engineering methods, and such other provisions that are determined to be appropriate for the control of such pollutants; and

WHEREAS, it is the purpose of this ordinance to protect, maintain and enhance the environment of Lancaster County and the short-term and long-term public health, safety and general welfare of its citizens by establishing requirements and procedures to control the potential adverse effects of increased stormwater runoff associated with both future development, including redevelopment, and existing developed land. Further, it is the purpose of this ordinance to direct the development and implementation of the Stormwater Management Program and to establish legal authority to authorize Lancaster County at a minimum to take all necessary action to obtain and comply with federal and state requirements.

NOW, THEREFORE, by the power and authority granted to the Lancaster County Council by the Constitution of the State of South Carolina and the powers granted to the County by the General assembly of the State, it is ordained and enacted that:

Section 1. Title.

This ordinance shall be known as the "Stormwater Management Ordinance of Lancaster County, South Carolina."

Section 2. Authority.

This ordinance is adopted pursuant to the power and authority granted to the Lancaster County Council by the Constitution of the State of South Carolina and the powers granted to the County by the general assembly of the State and in compliance with the requirements imposed upon the County by the National Pollutant Discharge Elimination System (NPDES) permit No. SCR030000 issued in accordance with the federal Clean Water Act, the South Carolina Pollution Control Act and regulations promulgated thereunder.

Section 3. Ordinance Amendment.

The terms, conditions and provisions of the ordinance shall be included within existing Lancaster County Ordinance No.: 2016-1422, otherwise known as the Uniform Development Ordinance (UDO), and to that extent Section 8.11, et seq. of the UDO ordinance is amended so as to add thereto the following:

8.11 – Stormwater management utility.

8.11.1 - Council findings.

The county council has made the following findings:

- (A) The management and regulation of stormwater runoff and sediment is necessary to reduce pollution, siltation, sedimentation, local flooding and stream channel erosion, all of which impact adversely land and water resources and the health, safety, property and welfare of the residents of the county;
- (B) There is a system of stormwater management facilities, including, but not limited to, inlets, conduits, manholes, outlets, ponds, and certain drainage easements within the County's designated MS4;
- (C) The stormwater management facilities and components within the MS4 need to be regularly maintained, rehabilitated, upgraded and improved, and additional stormwater management facilities and measures will need to be installed throughout the county;
- (D) The county needs to upgrade its capability in order to maintain existing and future stormwater management facilities and measures;

- (E) All parcels of real property in the county, particularly those with improvements, both use or benefit from the stormwater management system and program. The improvement of existing facilities and construction of additional facilities in the system will directly or indirectly benefit the owners of all real property;
- (F) Continued growth in the county will contribute to the need for improvements in and maintenance and regulation of the stormwater management system;
- (G) The county can best manage and regulate the control of stormwater by a policy that regulates the use of real property, both private and public, and which takes reasoned, measured steps to involve the county in additional methods of participation and regulation;
- (H) Owners of real property shall finance the stormwater management system to the extent they, and the persons they permit to utilize their property, contribute to the need for the system. Therefore, fees or other charges shall bear a substantial relationship to the cost of the service;
- (I) It is in the best interests of the citizens of this county and, most specifically, the owners of real property, that a stormwater management utility and stormwater management utility fee system be established by ordinance and implemented as part of the county's utility special revenue fund, by whatever name designated.

8.11.2 – Stormwater management utility established; administration; powers and duties.

The county council hereby establishes a stormwater management utility within the designated MS4 to carry out the purposes, functions and responsibilities set forth in this article. The governing body of the stormwater management utility shall be the county council. The administrator shall administer the stormwater management utility through the public works department or such other departments and divisions as the county administrator shall designate. The stormwater management utility shall have the following powers and duties, which powers and duties are not necessarily exclusive to the stormwater management utility:

- (A) Stormwater management planning to include 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 county 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 conditions or to improve water quality.
- (F) Acquisition of interests in land, including easements.
- (G) Design and construction of stormwater management facilities and measures and acquisition of equipment.

- (H) Water quantity and water quality management, including monitoring surveillance.
- (I) Any and all powers and duties delegated or granted to it as a local government implementing agency under the laws and regulations of the state and the ordinances of the county.

8.11.3 - Boundaries and jurisdiction.

All real properties located in Lancaster County north of the following boundary: from a point at the western boundary with York County along Highway 5 until its intersection with Highway 521, then proceeding briefly in a southerly direction along Highway 521, then in a northeasterly direction until its intersection with the Union County, North Carolina state line, then further northward along the North Carolina state line, all as depicted and delineated on that map incorporated herein and identified as Exhibit A-4.

8.11.3.1 - Amount and classifications of fees.

(A) Criteria for establishing fees.

The county council hereby establishes the amount and classifications of fees to be implemented to fund the storm water management utility and its programs and projects. In establishing such fees, the county council has considered, among other things, the following criteria:

- (1) The fee system must be reasonable and equitable so that users pay to the extent they contribute to the need for the storm water management utility, and so that fees or other charges bear a substantial relationship to the cost of service. The county council recognizes that these benefits, while substantial, in many cases cannot be measured directly.
- (2) The components of the calculations used to establish fees must include, but may not be limited to, the following cost factors, which may be associated with the resolution of storm water problems which the stormwater management utility shall seek to alleviate:
 - (a) Storm water management planning and preparation of comprehensive watershed master plans for storm water management;
 - (b) Regular inspection 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 improvement of stormwater management facilities that have been accepted by the county for purposes of storm water management;
 - (d) Plan review and inspection of sediment control and stormwater management plans, measures and practices;
 - (e) Retrofitting designed watersheds to reduce existing flooding problems or to improve water quality;
 - (f) Acquisition of interests in land, including easements;
 - (g) Design and construction of stormwater management facilities and measures and acquisition of equipment;

- (h) Administration and enforcement;
 - (i) Water quantity and water quality management, including monitoring surveillance; and
 - (j) Debt service and financing costs.
- (3) The components of the calculations used to establish fees must be based on an equivalent residential unit (ERU), determined and approved by the county council, with reasonable general adjustments being made for, but not limited to, the following factors:
- (a) Commercial service and industrial land uses other than single-family residential;
 - (b) Open and/or forested land;
 - (c) The amount of site that is impervious; and
 - (d) Other generally accepted factors relevant to such calculations based upon the provisions of this article.
- (4) The practical difficulties and limitations related to establishing, calculating and administering such fees should be addressed with due regard for fairness, efficiency, ease of comprehension, and ease of administration.
- (B) Fee structure. Stormwater management utility fees shall be fixed from time to time in the budget ordinance as approved by county council and are set forth in the fee schedule in the MSSD of the UDO. Fee categories are as follows:
- (1) Developed, single family residential property
 - (2) Non-single family residential property, developed commercial property, developed industrial property.

8.11.4 - Determination of amount of impervious area.

The administrator or designee will determine the amount of impervious area on each developed commercial/industrial property. A determination will be made using information derived from digital and other photographic data, as maintained by the administrator or designee, commonly designated as Geographic Information System (GIS) Data, and such additional information, if available, as may reliably supplement such data. Upon written request, an owner, or lawful occupant obligated to the owner for payment of the fee, shall be provided a written determination of the amount of impervious area for which a fee has been established.

(A) Collection of fees.

- (1) Taxable property. The administrator or his designee shall prepare and forward all information necessary to the county tax collector or his designee for the purpose of an annual billing of the stormwater management utility fee. Notice of the fee shall be included on the property owner's notice of ad valorem real property taxes, and the fee shall be due and payable simultaneously with the taxes. By Resolution, the county council may authorize the county administrator to implement other reliable means of billing.

- (2) Nontaxable property. The county council recognizes that nontaxable as well as taxable properties generate stormwater runoff and benefit from the stormwater management system and that the principle of fairness dictates that such properties be charged. The administrator or his designee shall make arrangements for billing for nontaxable property in the same manner as taxable property. By Resolution, the county council may authorize the county administrator to implement other reliable means of billing.
 - (3) Date of imposition of fee for developed properties. Developed properties shall become subject to the imposition of the stormwater management utility fee at the billing cycle following final approval of site development by the county.
- (B) Use of revenue; investment of funds; 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 storm water management utility has been established, including, but not limited to, regulation, planning, acquisition of interests in land, including easements, design and construction of facilities, maintenance of the stormwater management system, billing and administration, and water quantity and water quality management, including monitoring, surveillance, private maintenance inspection, construction inspection and other activities which are reasonably required. Such funds shall be invested and reinvested pursuant to the same procedures and practices established by the county for investment and reinvestment of funds. The county council may use any form of borrowing authorized by law to fund capital acquisitions or expenditures for the storm water management utility. The county council, in its discretion and pursuant to standard budgetary procedures, may supplement such funds with amounts from the general fund.
- (C) Requests for reconsideration; appeals.
- (1) Request for reconsideration.
 - (a) A property owner of record, or a lawful occupant obligated to the owner for payment of the fee, may request a reconsideration of any determination or interpretation by the administrator or designee in the operation of the storm water management utility. Such request must be in writing and filed with the administrator or designee, or such other person as the county administrator may designate, within 30 days of receipt of notification of the determination or interpretation.
 - (b) The county shall review the application and make a decision on the request within 30 days of receipt of the request.
 - (c) The request shall be made upon such forms and be accompanied by such information as the county, by written policy, shall require.
 - (2) Appeals.
 - (a) Persons who are authorized to make a request and who are aggrieved by a decision of the county under subsection 8.11.4(C)(1) shall have the right to appeal to the county administrator, or such person, committee or board as he may establish for such purpose.

- (b) The appeal shall be in writing and shall set forth, in detail, the grounds upon which relief is sought. The person designated to review such appeal shall provide a hearing on the appeal within 30 days of filing and render a decision within 60 days of filing.
 - (c) The person designated to review such appeal shall have full authority to affirm, modify or reverse a decision being reviewed upon determining whether the decision was made in compliance with the standards, policies and criteria of this division.
- (3) Payment of fee required. No provision of this division allowing for a request for reconsideration or for an administrative appeal shall be deemed to suspend the due date of the fee with payment in full. Any adjustment in the fee for the person pursuing a request for reconsideration or appeal shall be made by refund of the amount due.

Section 4. Geographic Area of Impact; Fee

This ordinance and the requirements of the Stormwater Management Utility shall be applicable to the following parcels:

All real properties located in Lancaster County north of the following boundary: from a point at the western boundary with York County along Highway 5 until its intersection with Highway 521, then proceeding briefly in a southerly direction along Highway 521, then in a northeasterly direction until its intersection with the Union County, North Carolina state line, then further northward along the North Carolina state line, all as depicted and delineated on that map incorporated herein and identified as Exhibit A-4.

The stormwater utility fee is based on the amount of impervious surface on your property. Impervious surface area is any surface that does not readily absorb water and impedes the natural infiltration of water in to the soil. The majority of Stormwater Utilities use impervious areas as an equitable way to set fees. Customers pay a fee related to the amount of runoff generated from their property. Impervious surfaces generate runoff at a much higher rate than undisturbed land.

Residential properties will be billed based on a Residential Equivalent Unit (ERU). An ERU is set as 3,500 square feet of impervious area. It was determined by taking a representative sample of residential properties in Lancaster County and measuring the impervious surfaces based on aerial photography. The commercial property fees are based on individual measurement and analyses of approximately 430 properties in the MS4 area. The impervious area for each was divided by 3,500 sq. ft. to determine the number of equivalent ERUs the property contained. The ERU is presently set at \$60 annually to cover minimum effort required to comply with new regulations in the panhandle of Lancaster County. The number of ERUs was multiplied by \$60 to determine an annual fee. The fee will be included along with annual tax billing invoices.

The fee applicable to this ordinance regarding the Stormwater Management Utility is established and shall be set in accordance with the proposed annual revenue and the proposed annual budget as set forth in both Exhibit B (revenue) and Exhibit C (budget), each being attached hereto and incorporated herein by reference as fully as if repeated verbatim. The County Council, having reviewed in detail the specifics of both Exhibit B and Exhibit C, has determined and so find that there is a rational nexus between the annual revenue and the annual budget; and, accordingly, adopt the following fees for 2017 as follows:

- A. Real property parcels having located thereon a residential structure - \$60.00 annually.
- B. Real property parcels having located thereon commercial structure(s) – see Lancaster County Tax Map Numbers noted on Exhibit B attached hereto and incorporated herein by reference as fully as if repeated verbatim. For all those commercial properties noted thereon that are subject to a real property tax or an incentive fee, the stormwater fee for any single parcel shall not exceed thirty-five (35%) percent of the real property tax or incentive fee due for each ensuing year. For those commercial properties that are exempt from real property taxes (schools, churches, government facilities, etc.), the 35% cap is not applicable and the entire stormwater fee shall be chargeable to those parcels.
- C. Real property considered as agricultural lands, forest lands or undeveloped lands – South Carolina Code Section 6-1-330(D) exempts such property from the imposition of a stormwater fee.

Section 5. Severability

If any section, subsection or clause of this ordinance is held to be unconstitutional or otherwise invalid, the validity of the other sections, subsections and clauses shall not be affected.

Section 6. Conflicting Provisions.

To the extent this ordinance contains provisions that conflict with provisions contained elsewhere in the Lancaster County Code or other County ordinances, the provisions contained in this ordinance supersedes all other provisions and this ordinance is controlling.

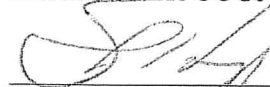
Section 7. Effective Date.

This ordinance is effective upon passage of Third Reading.

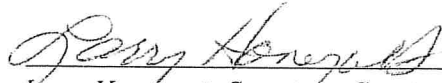
AND IT IS SO ORDAINED

Dated this 12th day of September, 2017

LANCASTER COUNTY, SOUTH CAROLINA



Steve Harper, Chair, County Council



Larry Honeycutt, Secretary, County Council

ATTEST:



Sherrie Simpson, Clerk to Council

First Reading: July 17, 2017
Second Reading: August 14, 2017
Third Reading: September 12, 2017
Public Hearing: August 28, 2017



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

April 14, 2016

Jeff Catoe
Public Works Director
Lancaster County
PO Box 1809
Lancaster, SC 29721

Re: Designation of a portion of Lancaster County as a Small Municipal Separate Storm Sewer Systems (SMS4) to Authorize Discharges to all Waters of the State under the State of South Carolina National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Regulated Small Municipal Separate Storm Sewer Systems (SMS4), SCR030000.

Dear Mr. Catoe,

We at the South Carolina Department of Health and Environmental Control (SCDHEC) appreciate the opportunity to meet with you to review Lancaster County's SMS4 Notice of Intent (NOI).

According to the 2010 U.S. Census, at least five distinct portions of Lancaster County became part of the Charlotte NC – SC Urbanized Area (UA). Based on that classification, SMS4s owned or operated by Lancaster County became automatically designated for regulation under Phase II of the NPDES Storm Water Program for Discharges from SMS4.

In addition, the Department is required to consider, and designate, portions of the SMS4 where it is determined that discharges from the SMS4 result, or have the potential to result, in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

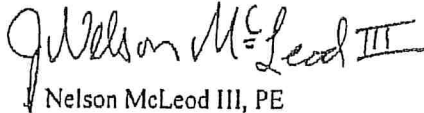
After water quality factors stated above were considered, the South Carolina Department of Health and Environmental Control (SCDHEC) is designating the portion of Lancaster County north of South Carolina Highway 5 as a Regulated Small Municipal Separate Storm Sewer System (SMS4). This area is comprised of TMDL watershed areas (Waxhaw and Twelvemile Creeks), and includes Sugar Creek, listed in the 2014 303(d) list of impaired waters in addition to the 5 portions of Lancaster County included in the Charlotte NC – SC UA as required in South Carolina Water Pollution Control Permits Regulation 61-9 §122.32.

There are waiver provisions from designation for Storm Water Permitting requirements contained in SC R. 61-9 §122.32.(e) & (h). However, these waiver provisions are not applicable to regulated SMS4s with population of 10,000 or more.

Designating the area north of South Carolina Highway 5 as the Lancaster County regulated SMS4 will allow Lancaster County an opportunity to ensure that development in this high growth area occurs in a manner that will meet the County's goals of protecting waters quality. SCDHEC will place a draft certificate of coverage on public notice giving the public an opportunity to comment. A fact sheet supporting the designation of the regulated SMS4 as the area north of South Carolina Highway 5 located in the jurisdiction of Lancaster County will be prepared.

Looking forward to the successful implementation of the NPDES Phase II Municipal Stormwater Program in Lancaster County.

Sincerely,

A handwritten signature in dark ink, appearing to read "Nelson McLeod III". The signature is fluid and cursive, with the last name "McLeod" being more prominent.

Nelson McLeod III, PE
Environmental Engineer
MS4 Program

Attachments.

cc: John Gast, Keck & Wood, Inc, 215 Hampton Street, Suite 100, Rock Hill, South Carolina 29730

References

SC Water Pollution Control Permits Regulation 61-9 §122.32 Criteria for regulation of a small MS4:

- (a)(1) Small MS4 located in urbanized area
- (c) Waiver requirements
- (f)(1)(i) Small MS4 located in urbanized area
- (f)(1)(ii) Total population and population density
- (f)(1)(iii) Adjacent to and impacting a designated MS4
- (g)(1)(i) On 303d list of impaired waters
- (g)(1)(iii) Population growth
- (g)(1)(iv) Three miles of urbanized area
- (g)(2)(i) Contributing to violation of water quality standard
- (g)(2)(vi) MS4 approaches two or more criteria
- (h) Waivers and phasing

SC Water Pollution Control Permits Regulation 61-9 §124.10 Public notice of permit actions and public comment period

List of Impaired 303d

http://www.scdhec.gov/HomeAndEnvironment/Docs/tmdl_14-303d.pdf

List of Approved TMDLs

http://www.scdhec.gov/HomeAndEnvironment/Docs/tmdl_08sites.pdf

Lancaster County Commercial Properties Storm Utility Fee Summary

Lancaster County Parcel ID	Impervious Area (SF)	Equivalent Residential Units (Imp. Area/3500)	Storm Utility Fee (\$75.00xERU)
0002-00-024.00	44,374	12.7	\$950.87
0002-00-024.01	57,376	16.4	\$1,229.49
0002-00-027.00	2,025	1.0	\$75.00
0002N-0A-028.00	38,597	11.0	\$827.08
0002-00-023.00	18,787	5.4	\$402.58
0002-00-028.00	152,958	43.7	\$3,277.67
0002-00-022.00	42,221	12.1	\$904.74
0002-00-019.01	2,950	1.0	\$75.00
0006F-0A-014.00	33,226	9.5	\$711.99
0006-00-060.00	5,024	1.4	\$107.66
0006-00-059.00	2,350	1.0	\$75.00
0005-00-100.01	33,340	9.5	\$714.43
0008-00-010.01	13,968	4.0	\$299.31
0008-00-002.00	71,867	20.5	\$1,540.01
0008-00-010.00	13,509	3.9	\$289.48
0008-00-009.00	3,432	1.0	\$75.00
0013-00-043.02	347,165	99.2	\$7,439.25
0019-00-004.00	28,008	8.0	\$600.17
0003-00-044.00	4,744	1.4	\$101.66
0003-00-045.00	7,488	2.1	\$160.46
0003-00-081.02	9,091	2.6	\$194.81
0003-00-040.03	1,946	1.0	\$75.00
0003-00-041.00	1,458	1.0	\$75.00
0003-00-066.00	15,554	4.4	\$333.30
0006-00-040.00	29,415	8.4	\$630.32
0006D-0A-003.00	41,743	11.9	\$894.49
0005-00-018.00	182,245	52.1	\$3,905.25
0006E-0B-009.00	744	1.0	\$75.00
0006E-0B-019.00	31,626	9.0	\$677.70
0006F-0A-019.00	11,970	3.4	\$256.50
0005-00-102.00	688,627	196.8	\$14,756.29
0006N-0B-003.00	7,812	2.2	\$167.40
0006N-0B-006.00	6,899	2.0	\$147.84
0005-00-101.01	11,248	3.2	\$241.03
0006N-0B-012.00	2,340	1.0	\$75.00
0006-00-074.00	15,428	4.4	\$330.60
0006-00-088.07	25,918	7.4	\$555.39
0006N-0B-046.00	3,099	1.0	\$75.00
0006N-0B-011.00	2,844	1.0	\$75.00
0006N-0B-007.00	5,143	1.5	\$110.21
0006N-0B-006.00	6,899	2.0	\$147.84
0006-00-061.00	32,783	9.4	\$702.60

Exhibit B-1

Lancaster County Commercial Properties Storm Utility Fee Summary

Lancaster County Parcel ID	Impervious Area (SF)	Equivalent Residential Units (Imp. Area/3500)	Storm Utility Fee (\$75.00xERU)
0006-00-062.00	36,008	10.3	\$771.60
0006N-0B-005.00	16,489	4.7	\$353.34
0006N-0B-005.01	543	1.0	\$75.00
0006N-0B-004.00	10,991	3.1	\$235.52
0006N-0B-003.00	7,812	2.2	\$167.40
0006-00-071.00	117,064	33.4	\$2,508.51
0006-00-069.00	11,568	3.3	\$247.89
0006-00-068.01	52,540	15.0	\$1,125.86
0006-00-068.00	6,585	1.9	\$141.11
0006N-0B-002.00	15,395	4.4	\$329.89
0006-00-063.00	18,822	5.4	\$403.33
0006N-0B-001.00	7,709	2.2	\$165.19
0005-00-104.00	203,220	58.1	\$4,354.71
0006-00-072.01	50,491	14.4	\$1,081.95
0006-00-081.00	25,719	7.3	\$551.12
0006-00-082.00	14,892	4.3	\$319.11
0006-00-083.00	11,777	3.4	\$252.36
0007-00-008.00	536,658	153.3	\$11,499.81
0006-00-079.00	6,745	1.9	\$144.54
0008-00-004.00	1,651	1.0	\$75.00
0008-00-003.00	2,531	1.0	\$75.00
0008-00-013.00	53,302	15.2	\$1,142.19
0008-00-007.00	4,342	1.2	\$93.04
0008-00-005.00	21,620	6.2	\$463.29
0008-00-011.01	1,151	1.0	\$75.00
0008-00-012.00	24,012	6.9	\$514.54
0008-00-008.00	5,157	1.5	\$110.51
0008-00-006.00	9,795	2.8	\$209.89
0008-00-016.01	59,618	17.0	\$1,277.53
0008-00-017.00	11,970	3.4	\$256.50
0008-00-019.00	1,702	1.0	\$75.00
0008-00-020.00	9,641	2.8	\$206.59
0008-00-023.00	5,780	1.7	\$123.86
0008-00-021.00	17,837	5.1	\$382.22
0008G-0A-004.00	6,854	2.0	\$146.87
0008-00-026.00	53,896	15.4	\$1,154.91
0007-00-010.00	427,117	122.0	\$9,152.51
0008G-0C-003.00	30,376	8.7	\$650.91
0008-00-028.00	96,370	27.5	\$2,065.07
0008-00-061.02	72,950	20.8	\$1,563.21
0008G-0D-004.00	11,941	3.4	\$255.88
0008G-0D-001.00	22,003	6.3	\$471.49

Exhibit B-2

Lancaster County Commercial Properties Storm Utility Fee Summary

Lancaster County Parcel ID	Impervious Area (SF)	Equivalent Residential Units (Imp. Area/3500)	Storm Utility Fee (\$75.00xERU)
0008-00-034.00	257,190	73.5	\$5,511.21
0008G-0D-002.00	20,895	6.0	\$447.75
0008-00-056.00	26,910	7.7	\$576.64
0008G-0D-003.00	79,816	22.8	\$1,710.34
0008-00-060.00	9,475	2.7	\$203.04
0008-00-056.01	110,624	31.6	\$2,370.51
0008-00-076.00	16,948	4.8	\$363.17
0008-00-040.00	34,577	9.9	\$740.94
0008-00-048.00	20,290	5.8	\$434.79
0008-00-074.00	10,692	3.1	\$229.11
0008-00-071.00	1,111	1.0	\$75.00
0008-00-074.01	7,764	2.2	\$166.37
0008-00-074.02	1,983	1.0	\$75.00
0008-00-072.01	5,051	1.4	\$108.24
0008-00-072.00	10,694	3.1	\$229.16
0008-00-071.01	8,832	2.5	\$189.26
0010-00-001.00	158,494	45.3	\$3,396.30
0010-00-029.00	8,603	2.5	\$184.35
0010-00-005.00	950	1.0	\$75.00
0010-00-032.00	2,228	1.0	\$75.00
0010-00-039.00	31,177	8.9	\$668.08
0010-00-044.01	29,507	8.4	\$632.29
0010-00-077.00	20,205	5.8	\$432.96
0010-00-016.01	11,488	3.3	\$246.17
0010-00-048.00	38,012	10.9	\$814.54
0010-00-049.00	43,664	12.5	\$935.66
0010-00-064.00	47,889	13.7	\$1,026.19
0010-00-059.00	633,899	181.1	\$13,583.55
0010-00-057.00	1,983	1.0	\$75.00
0010-00-052.01	9,390	2.7	\$201.21
0010-00-056.00	6,757	1.9	\$144.79
0010-00-053.00	5,768	1.6	\$123.60
0010-00-055.00	4,734	1.4	\$101.44
0010-00-054.00	3,240	1.0	\$75.00
0013-00-054.00	12,186	3.5	\$261.13
0013-00-054.01	17,238	4.9	\$369.39
0013-00-013.02	45,037	12.9	\$965.08
0013-00-013.00	64,041	18.3	\$1,372.31
0013-00-023.00	360,166	102.9	\$7,717.84
0013-00-015.00	71,064	20.3	\$1,522.80
0013-00-022.00	1,108	1.0	\$75.00
0013-00-021.00	432,689	123.6	\$9,271.91

Exhibit B-3

Lancaster County Commercial Properties Storm Utility Fee Summary

Lancaster County Parcel ID	Impervious Area (SF)	Equivalent Residential Units (Imp. Area/3500)	Storm Utility Fee (\$75.00xERU)
0013-00-020.00	25,663	7.3	\$549.92
0013-00-004.00	13,923	4.0	\$298.35
0013-00-043.01	30,938	8.8	\$662.96
0013-00-049.00	36,377	10.4	\$779.51
0013-00-050.00	6,722	1.9	\$144.04
0013-00-049.01	6,129	1.8	\$131.34
0013-00-029.00	15,157	4.3	\$324.79
0013-00-080.00	8,643	2.5	\$185.21
0013-00-080.02	4,058	1.2	\$86.96
0013-00-080.01	14,218	4.1	\$304.67
0013-00-078.00	7,951	2.3	\$170.38
0013-00-069.04	15,243	4.4	\$326.64
0013-00-068.00	8,582	2.5	\$183.90
0013-00-045.01	17,672	5.0	\$378.69
0013-00-069.03	10,473	3.0	\$224.42
0013-00-070.00	59,479	17.0	\$1,274.55
0013-00-034.07	11,237	3.2	\$240.79
0014-00-047.00	19,998	5.7	\$428.53
0016-00-026.00	156,090	44.6	\$3,344.79
0016-00-027.01	64,743	18.5	\$1,387.35
0016-00-028.01	1,015	1.0	\$75.00
0016-00-031.02	19,871	5.7	\$425.81
0016-00-031.00	16,383	4.7	\$351.06
0016-00-034.02	14,915	4.3	\$319.61
0015-00-039.00	7,249	2.1	\$155.34
0015-00-060.00	27,425	7.8	\$587.68
0020-00-004.01	68,737	19.6	\$1,472.94
0020-00-041.12	6,659	1.9	\$142.69
0019-00-033.00	12,068	3.4	\$258.60
0019-00-031.00	26,927	7.7	\$577.01
0013-00-048.00	42,903	12.3	\$919.35
0013-00-048.03	62,743	17.9	\$1,344.49
0003-00-006.02	72,827	20.8	\$1,560.58
0008-00-069.01	17,013	4.9	\$364.56
0006-00-054.04	92,544	26.4	\$1,983.09
0007-00-008.03	522,871	149.4	\$11,204.38
0007-00-009.01	5,819	1.7	\$124.69
0007-00-009.00	4,633	1.3	\$99.28
0008-00-061.00	11,920	3.4	\$255.43
0008-00-061.05	177,131	50.6	\$3,795.66
0013-00-048.01	38,184	10.9	\$818.23
0016-00-010.00	23,498	6.7	\$503.53

Exhibit B-4

Lancaster County Commercial Properties Storm Utility Fee Summary

Lancaster County Parcel ID	Impervious Area (SF)	Equivalent Residential Units (Imp. Area/3500)	Storm Utility Fee (\$75.00xERU)
0016-00-009.00	8,600	2.5	\$184.29
0016-00-008.00	17,749	5.1	\$380.34
0016-00-045.00	8,859	2.5	\$189.84
0013-00-001.00	6,286	1.8	\$134.70
0013-00-079.00	42,467	12.1	\$910.01
0015-00-012.00	19,592	5.6	\$419.83
0020-00-001.00	72,333	20.7	\$1,549.99
0022-00-007.00	142,850	40.8	\$3,061.07
0003-00-046.05	144,755	41.4	\$3,101.89
0010-00-030.00	252,367	72.1	\$5,407.86
0010-00-031.00	2,474	1.0	\$75.00
0010-00-037.03	78,406	22.4	\$1,680.13
0010-00-046.03	24,043	6.9	\$515.21
0010-00-050.05	79,835	22.8	\$1,710.75
0013-00-087.00	74,449	21.3	\$1,595.34
0013-00-047.01	60,244	17.2	\$1,290.94
0015-00-004.10	12,805	3.7	\$274.39
0016-00-045.01	2,667	1.0	\$75.00
0016-00-045.02	6,726	1.9	\$144.13
0016-00-006.00	13,882	4.0	\$297.47
0016-00-007.00	85,678	24.5	\$1,835.96
0020-00-014.00	81,546	23.3	\$1,747.41
0020-00-049.00	65,930	18.8	\$1,412.79
0021-00-004.00	25,224	7.2	\$540.51
0008B-0C-006.00	21,825	6.2	\$467.68
0010-00-051.00	35,385	10.1	\$758.25
0008-00-054.01	40,432	11.6	\$866.40
0005-00-100.00	57,340	16.4	\$1,228.71
0005-00-100.03	70,493	20.1	\$1,510.56
0005-00-100.05	28,962	8.3	\$620.61
0010-00-050.07	18,919	5.4	\$405.41
0010-00-050.06	67,020	19.1	\$1,436.14
0003-00-063.00	32,731	9.4	\$701.38
0016-00-034.00	9,590	2.7	\$205.50
0008-00-059.00	26,503	7.6	\$567.92
0008G-0D-005.00	25,707	7.3	\$550.86
0013-00-051.00	114,790	32.8	\$2,459.79
0013G-0A-135.00	72,901	20.8	\$1,562.16
0013-00-046.01	209,559	59.9	\$4,490.55
0013-00-046.02	32,526	9.3	\$696.99
0002-00-005.00	19,625	5.6	\$420.54
0005-00-114.00	43,286	12.4	\$927.56

Exhibit B-5

Lancaster County Commercial Properties Storm Utility Fee Summary

Lancaster County Parcel ID	Impervious Area (SF)	Equivalent Residential Units (Imp. Area/3500)	Storm Utility Fee (\$75.00xERU)
0010-00-050.10	62,193	17.8	\$1,332.71
0010-00-050.11	38,669	11.0	\$828.62
0010-00-050.14	110,058	31.4	\$2,358.39
0010-00-050.18	117,640	33.6	\$2,520.86
0010-00-050.19	152,989	43.7	\$3,278.34
0005-00-109.00	96,789	27.7	\$2,074.05
0005-00-103.00	161,414	46.1	\$3,458.87
0008-00-011.02	32,434	9.3	\$695.01
0013-00-086.02	42,325	12.1	\$906.96
0005-00-103.05	133,654	38.2	\$2,864.01
0010-00-050.09	70,660	20.2	\$1,514.14
0010-00-047.00	6,916	2.0	\$148.20
0010-00-048.01	29,530	8.4	\$632.79
0010J-0A-001.01	210,161	60.0	\$4,503.45
0010-00-050.17	166,246	47.5	\$3,562.41
0010-00-046.01	32,230	9.2	\$690.64
0005-00-115.00	105,472	30.1	\$2,260.11
0020-00-037.00	13,810	3.9	\$295.93
0008-00-011.03	100,406	28.7	\$2,151.56
0006-00-052.02	21,805	6.2	\$467.25
0002-00-005.01	763	1.0	\$75.00
0002-00-005.02	15,497	4.4	\$332.08
0005-00-103.06	172,289	49.2	\$3,691.91
0013-00-047.02	38,364	11.0	\$822.09
0010-00-058.00	15,514	4.4	\$332.44
0016-00-017.00	31,022	8.9	\$664.76
0016-00-018.00	283,349	81.0	\$6,071.76
0016-00-019.00	201,398	57.5	\$4,315.67
0007-00-017.05	2,738	1.0	\$75.00
0008-00-016.02	552,961	158.0	\$11,849.16
0006-00-003.00	7,999	2.3	\$171.41
0008-00-084.00	35,787	10.2	\$766.86
0005-00-074.04	46,241	13.2	\$990.88
0005-00-100.02	2,320	1.0	\$75.00
0008-00-027.02	383,130	109.5	\$8,209.93
0013-00-061.00	26,803	7.7	\$574.35
0013N-0A-096.00	57,174	16.3	\$1,225.16
0008-00-026.02	2,066	1.0	\$75.00
0008-00-027.04	55,052	15.7	\$1,179.69
0008-00-084.02	10,305	2.9	\$220.82
0008-00-024.01	498	1.0	\$75.00
0010-00-004.00	7,636	2.2	\$163.63

Exhibit B-6

Lancaster County Commercial Properties Storm Utility Fee Summary

Lancaster County Parcel ID	Impervious Area (SF)	Equivalent Residential Units (Imp. Area/3500)	Storm Utility Fee (\$75.00xERU)
0020-00-004.00	30,127	8.6	\$645.58
0007-00-008.05	79,192	22.6	\$1,696.97
0010-00-050.03	215,446	61.6	\$4,616.70
0005-00-019.01	103,857	29.7	\$2,225.51
0009I-0A-081.01	21,330	6.1	\$457.07
0013-00-022.01	7,053	2.0	\$151.14
0016-00-075.00	157,018	44.9	\$3,364.67
0016-00-077.00	64,326	18.4	\$1,378.41
0010-00-050.20	44,291	12.7	\$949.09
0005-00-102.03	30,925	8.8	\$662.68
0005-00-102.01	38,187	10.9	\$818.29
0005-00-102.02	59,971	17.1	\$1,285.09
0006-00-001.00	3,590	1.0	\$76.93
0007-00-028.00	64,097	18.3	\$1,373.51
0007-00-033.00	26,448	7.6	\$566.74
0007-00-026.00	74,765	21.4	\$1,602.11
0007-00-030.00	37,765	10.8	\$809.25
0007-00-031.00	52,437	15.0	\$1,123.65
0007-00-029.00	29,125	8.3	\$624.11
0001-00-002.00	20,387	5.8	\$436.86
0005H-0C-001.01	72,423	20.7	\$1,551.92
0010J-0A-061.00	1,461	1.0	\$75.00
0007-00-027.00	9,119	2.6	\$195.41
0013-00-055.02	8,302	2.4	\$177.90
0014N-0J-008.00	2,114	1.0	\$75.00
0007-00-008.06	291,266	83.2	\$6,241.41
0006-00-008.00	16,341	4.7	\$350.16
0016-00-019.03	21,323	6.1	\$456.92
0016-00-019.01	33,383	9.5	\$715.35
0016-00-018.01	29,912	8.5	\$640.97
0013-00-110.00	28,724	8.2	\$615.51
0010-00-029.03	204,797	58.5	\$4,388.51
0007-00-025.02	32,541	9.3	\$697.31
0007-00-025.03	38,396	11.0	\$822.77
0007-00-034.00	124,749	35.6	\$2,673.19
0007-00-025.01	134,331	38.4	\$2,878.52
0005-00-113.00	49,149	14.0	\$1,053.19
0005-00-113.01	30,493	8.7	\$653.42
0010-00-052.00	6,614	1.9	\$141.73
0013-00-078.01	5,992	1.7	\$128.40
0013-00-048.04	5,111	1.5	\$109.52
0015-00-048.01	16,536	4.7	\$354.34

Exhibit B-7

Lancaster County Commercial Properties Storm Utility Fee Summary

Lancaster County Parcel ID	Impervious Area (SF)	Equivalent Residential Units (Imp. Area/3500)	Storm Utility Fee (\$75.00xERU)
0009-00-002.00	16,330	4.7	\$349.93
0010-00-060.01	32,395	9.3	\$694.18
0008-00-016.03	32,441	9.3	\$695.16
0008-00-016.00	41,345	11.8	\$885.96
0006-00-010.00	4,859	1.4	\$104.12
0008-00-027.05	56,759	16.2	\$1,216.26
0002-00-019.00	4,795	1.4	\$102.75
0005-00-103.02	3,919	1.1	\$83.98
0005-00-118.00	203,747	58.2	\$4,366.01
0005-00-100.07	15,322	4.4	\$328.33
0006-00-072.00	20,084	5.7	\$430.37
0007-00-001.02	17,727	5.1	\$379.86
0013-00-061.01	20,961	6.0	\$449.16
0002G-0C-013.01	2,455	1.0	\$75.00
0010-00-046.02	29,643	8.5	\$635.21
0005-00-103.07	75,487	21.6	\$1,617.58
0006G-0A-018.00	3,818	1.1	\$81.81
0010-00-045.05	240,704	68.8	\$5,157.94
0010-00-007.00	171,122	48.9	\$3,666.90
0015A-0A-012.01	2,799	1.0	\$75.00
0006M-0A-027.01	20,752	5.9	\$444.69
0005-00-102.04	49,962	14.3	\$1,070.61
0005-00-102.05	32,855	9.4	\$704.04
0006-00-085.02	104,686	29.9	\$2,243.27
0006N-0D-039.00	4,604	1.3	\$98.66
0002-00-025.00	33,422	9.5	\$716.19
0005-00-102.06	43,223	12.3	\$926.21
0002K-0A-031.00	76,044	21.7	\$1,629.51
0006-00-003.02	2,810	1.0	\$75.00
0010-00-052.02	4,566	1.3	\$97.84
0006-00-008.01	26,130	7.5	\$559.93
0008P-0G-001.00	5,721	1.6	\$122.59
0020-00-002.01	16,791	4.8	\$359.81
0008-00-027.06	49,004	14.0	\$1,050.09
0006L-0H-001.01	60,991	17.4	\$1,306.95
0005-00-103.01	256,121	73.2	\$5,488.31
0005-00-074.01	15,001	4.3	\$321.45
0005-00-074.09	26,798	7.7	\$574.24
0015-00-001.00	42,265	12.1	\$905.68
0020-00-008.00	173,182	49.5	\$3,711.04
0015-00-055.01	5,795	1.7	\$124.18
0013-00-018.00	439,935	125.7	\$9,427.18

Exhibit B-8

Lancaster County Commercial Properties Storm Utility Fee Summary

Lancaster County Parcel ID	Impervious Area (SF)	Equivalent Residential Units (Imp. Area/3500)	Storm Utility Fee (\$75.00xERU)
0008-00-022.01	3,040	1.0	\$75.00
0008-00-061.04	88,080	25.2	\$1,887.43
0016-00-026.01	7,841	2.2	\$168.02
0005-00-093.06	6,759	1.9	\$144.84
0005-00-093.01	11,703	3.3	\$250.78
0005-00-093.00	16,195	4.6	\$347.04
0014A-0B-027.01	76,956	22.0	\$1,649.06
0016-00-001.06	181,478	51.9	\$3,888.81
0010-00-045.01	14,047	4.0	\$301.01
0006-00-052.03	11,870	3.4	\$254.36
0003-00-051.00	8,007	2.3	\$171.58
0015-00-024.03	2,705	1.0	\$75.00
0003-00-052.00	32,607	9.3	\$698.72
0016-00-001.00	987,664	282.2	\$21,164.23
0013-00-019.01	36,296	10.4	\$777.77
0013-00-019.00	28,680	8.2	\$614.57
0005-00-116.00	6,683	1.9	\$143.21
0010-00-037.02	6,030	1.7	\$129.21
0015F-0A-001.01	62,112	17.7	\$1,330.97
0007-00-008.04	1,939	1.0	\$75.00
0022-00-001.00	44,281	12.7	\$948.88
0013-00-030.01	1,961	1.0	\$75.00
0013-00-055.03	15,299	4.4	\$327.84
0008-00-061.07	27,597	7.9	\$591.36
0008-00-061.06	33,142	9.5	\$710.19
0008-00-061.03	4,390	1.3	\$94.07
0013-00-047.03	74,913	21.4	\$1,605.28
0008-00-026.04	34,376	9.8	\$736.63
0008-00-077.00	6,745	1.9	\$144.54
0008-00-021.01	217,802	62.2	\$4,667.19
0008F-0C-061.00	57,377	16.4	\$1,229.51
0015-00-013.00	14,132	4.0	\$302.83
0015-00-024.00	54,776	15.7	\$1,173.77
0007-00-025.05	376,127	107.5	\$8,059.86
0005-00-074.11	41,328	11.8	\$885.60
0013-00-105.00	45,558	13.0	\$976.24
0015-00-052.00	4,620	1.3	\$99.00
0008-00-063.06	44,801	12.8	\$960.02
0009-00-011.00	2,917	1.0	\$75.00
0009-00-011.01	1,972	1.0	\$75.00
0010-00-050.08	137,762	39.4	\$2,952.04
0010-00-051.00	35,385	10.1	\$758.25

Exhibit B-9

Lancaster County Commercial Properties Storm Utility Fee Summary

Lancaster County Parcel ID	Impervious Area (SF)	Equivalent Residential Units (Imp. Area/3500)	Storm Utility Fee (\$75.00xERU)
0016-00-035.00	34,101	9.7	\$730.74
0013-00-108.00	1,804	1.0	\$75.00
0013-00-107.00	34,172	9.8	\$732.26
0008-00-052.00	50,805	14.5	\$1,088.68
008-00-052.01	15,528	4.4	\$332.74
0013-00-106.00	8,032	2.3	\$172.11
0003-00-006.01	115,622	33.0	\$2,477.61
0020-00-001.00	72,333	20.7	\$1,549.99
0021-00-003.01	2,836	1.0	\$75.00
0021-00-002.00	64,427	18.4	\$1,380.58
0021-00-011.01	5,713	1.6	\$122.42
0022-00-006.01	15,199	4.3	\$325.69
0025-00-005.01	128,606	36.7	\$2,755.84
0026-00-013.02	263,169	75.2	\$5,639.34
0026-00-013.03	3,901	1.1	\$83.59
0026-00-013.01	3,049	1.0	\$75.00
0025-00-010.02	743,587	212.5	\$15,934.01
0025-00-025.00	27,084	7.7	\$580.37
0025-00-063.00	3,077	1.0	\$75.00
0025-00-062.00	941	1.0	\$75.00
0025-00-030.00	12,227	3.5	\$262.01
0025-00-031.00	25,323	7.2	\$542.64
0025-00-032.00	4,988	1.4	\$106.89
0025-00-045.00	1,921	1.0	\$75.00
0026-00-026.00	14,490	4.1	\$310.50
0027-00-017.00	146,390	41.8	\$3,136.93
0026-00-035.00	49,681	14.2	\$1,064.59
0028-00-007.00	38,683	11.1	\$828.92
0027-00-008.00	84,174	24.0	\$1,803.73
0028-00-018.02	12,030	3.4	\$257.79
0028-00-035.06	13,439	3.8	\$287.98
0028-00-035.02	27,162	7.8	\$582.04
0028-00-035.01	7,617	2.2	\$163.22
0028-00-031.00	4,336	1.2	\$92.91
0028-00-031.01	17,188	4.9	\$368.31
0027-00-025.00	22,872	6.5	\$490.11
0025-00-002.00	4,451	1.3	\$95.38
0025-00-066.02	1,946	1.0	\$75.00
0025-00-047.00	2,728	1.0	\$75.00
0025-00-065.00	18,118	5.2	\$388.24
0025-00-034.09	36,616	10.5	\$784.63
0026-00-015.01	14,769	4.2	\$316.48

Exhibit B-10

Lancaster County Commercial Properties Storm Utility Fee Summary

Lancaster County Parcel ID	Impervious Area (SF)	Equivalent Residential Units (Imp. Area/3500)	Storm Utility Fee (\$75.00xERU)
0025-00-078.02	11,763	3.4	\$252.06
0028-00-036.00	3,410	1.0	\$75.00
0025-00-078.03	117,611	33.6	\$2,520.24
0026-00-016.01	147,722	42.2	\$3,165.47
0026-00-013.04	130,541	37.3	\$2,797.31
00250-0A-017.00	13,548	3.9	\$290.31
0028-00-019.00	81,869	23.4	\$1,754.34
0025-00-016.00	5,958	1.7	\$127.67
0028-00-022.00	6,806	1.9	\$145.84
0025-00-034.03	32,729	9.4	\$701.34
Total for Commercial Parcels:			\$536,112.69

Total Number of Residential Units	ERU	Storm Utility Fee (\$75.00/ERU)
13,796	1.0	\$1,034,700.00
Total for Commercial and Residential Parcels:		\$1,570,812.69

Notes:

- 20 Residential lots were sampled at random to determine the average impervious area of a single-family lot. It was determined to be approximately 3500 SF.
- The impervious areas for commercial properties were obtained either from available aerial imagery or submitted site plans.
- This impervious area of each commercial property was then converted to Equivalent Residential Units (ERUs) by dividing the impervious area of each parcel by 3500 (average for a residential unit).
- The ERUs for each parcel was multiplied by \$75 to calculate the Stormwater Utility Fee.
- A minimum of 1 ERU was used for commercial parcels.
- This list was compiled on 7/30/2016

Exhibit B-11

Accounts	Partial Budget FY18	Budget Full Year FY19	Notes
Wages & Salaries Full Time	183,125.00	343,500.00	Begin with Engineer, Admin, Tech, Field Inspector; add additional staff in future
Wages & Salaries Over Time	1,500.00	3,000.00	
FICA	14,290.00	19,000.00	
SC Retirement Contribution	25,325.00	33,675.00	
Health/Life Ins	30,370.00	63,375.00	
Workers Comp	5,360.00	7,080.00	
Travel, Training, Dues	6,000.00	10,000.00	
Supplies-General	7,000.00	7,000.00	
Supplies-Postage	6,000.00	6,000.00	
Equipment-General	10,000.00	10,000.00	
Equipment-Capital	50,000.00		Vehicles (removed for future years)
Utilities-Telephone	6,500.00	7,000.00	
Maintenance- Vehicles	1,500.00	3,000.00	
Gasoline	3,500.00	5,000.00	
Maintenance-Service Agreement	3,000.00	3,000.00	Software
Contractual Services (CS)	300,000.00	150,000.00	Testing, plan review assistance
CS-Printing	3,000.00	3,000.00	
Special Projects	150,000.00	469,680.00	Camera work; pipe replacement; public outreach, etc.
Lease Copiers	3,000.00	3,000.00	
Reserve--Fund Balance Policy	399,765.00		Remove once built in first year
Reserve--Capital Projects	123,315.00	186,240.00	Unexpected or necessary future projects
Total	1,332,550.00	1,332,550.00	

