

Lancaster County Stormwater Management

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Frequently Asked Questions

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.

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.

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 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 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 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.

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.

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>