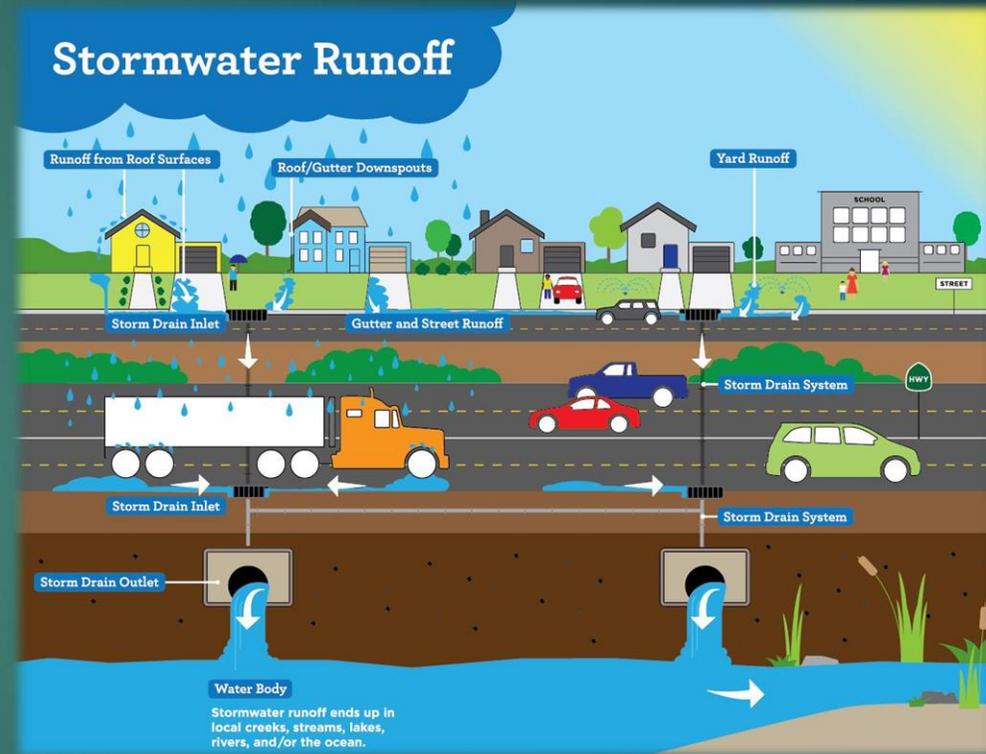


Rehabilitating Our Waterways

Stormwater Runoff

- ▶ Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground
- ▶ Pollutants, debris, and trash are carried off into waterways
- ▶ Stormwater runoff is the number one cause of stream impairment in urban areas



Why is Stormwater Runoff a Problem?

3

Pollution

- ▶ Stormwater runoff can pick-up debris, chemicals, dirt and other pollutants and flow into a storm sewer system or directly into a lake, stream, river, or wetland
- ▶ Anything that enters a storm sewer system is discharged, **untreated**, into the waterbodies we use for swimming, fishing, and drinking water

Flooding

- ▶ Flooding increased as impervious surfaces replace natural vegetation, because water is unable to slowly filter into the landscape
- ▶ Stormwater deposits sediment into streams decreasing the natural depth of water ways, further contributing to flooding

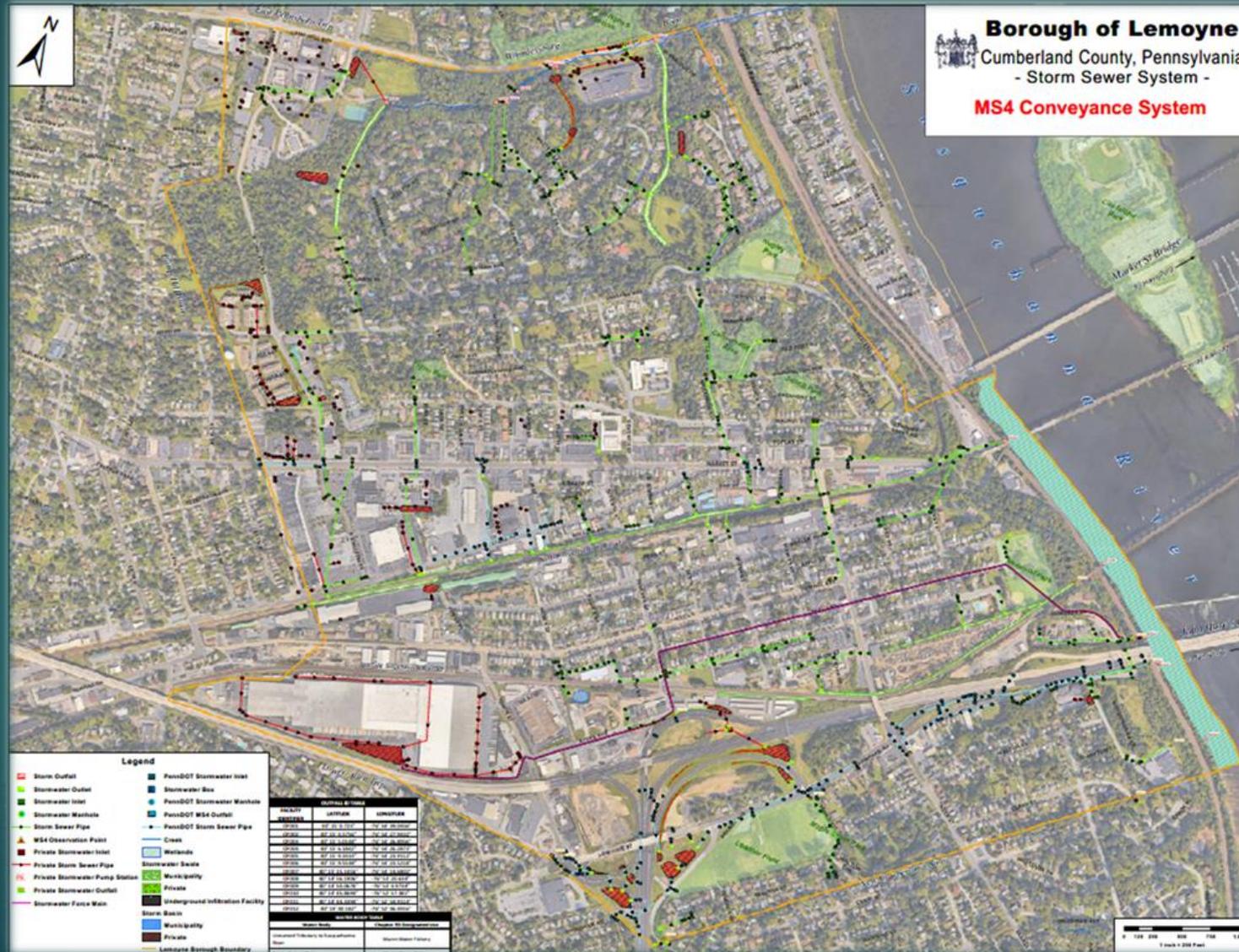
What is MS4?

A Municipal Separate Storm Sewer System is a conveyance or system of conveyances that is:

- ▶ Owned by a municipality
- ▶ Designed or used, to collect or convey stormwater
- ▶ Commonly discharged to local waterways, **untreated**



Lemoyne Borough's MS4



Challenges in the Borough

Localized Flooding

- ▶ 12th Street Plaza
- ▶ Farmers Market/Pizza Grill
- ▶ Norfolk Southern

Regulatory Compliance

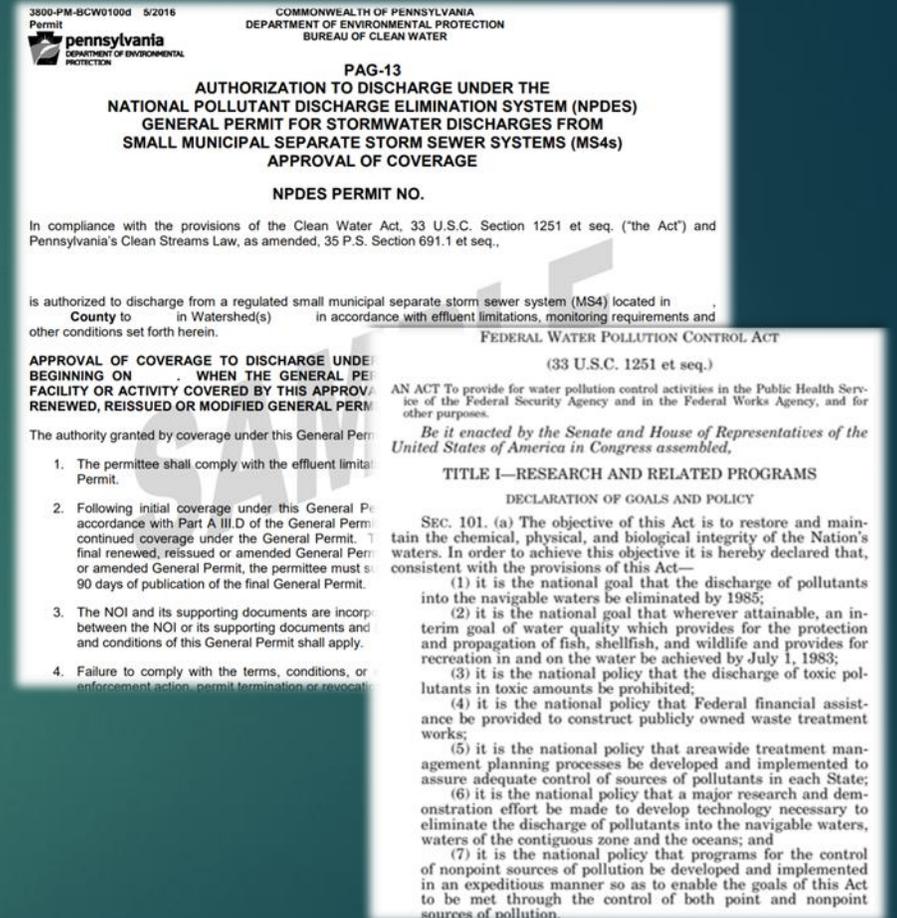
- ▶ Clean Water Act
- ▶ PA National Pollution Discharge Elimination System (NPDES)
- ▶ Municipal Separate Storm Sewer System (MS4)

Public Engagement

- ▶ Partners
- ▶ Requirement of MS4

Budgetary Constraints

- ▶ Existing Stormwater Fund
- ▶ General Fund
- ▶ Limited Grants



Lemoyme Borough's Aging Infrastructure

- ▶ 27,500 Linear foot of pipe (5.2 miles);
- ▶ 500 Inlets;
- ▶ 20 Manholes;
- ▶ 40 Endwalls;
- ▶ 19.88 Miles of Borough Roads; and
- ▶ 5.58 Miles of State roads.



Localized Flooding

- ▶ 12th Street Plaza
- ▶ Farmers Market/Pizza Grill
- ▶ Norfolk Southern



Lemoyne Stormwater Management Plan

- ▶ Infrastructure construction, maintenance, and repair
- ▶ Stormwater quality improvement projects
- ▶ Flooding mitigation projects
- ▶ Permit Compliance
- ▶ Public education and Outreach
- ▶ Illicit Discharge Detection & Elimination

What Have We Done So Far?

Market Street Rain Gardens

- ▶ The Market Street Streetscape project incorporated a series of rain gardens along the corridor. These rain gardens collect and treat polluted runoff from the road, preventing pollutants from being discharged to the Susquehanna River.

Pollution Reduction Plan (PRP)

- ▶ The Borough developed a PRP as part of the 2017 PA DEP permit renewal process. The plan defines measurable goals of pollutant reduction over the next five years. As part of the planning process, the Borough applied for and received a grant from PA DEP for implementation of the stream restoration project identified in the plan.



Why Are We Here?

Currently, funds for operations and maintenance of the stormwater system and Stormwater Management Program come from the Stormwater Fund of the Operating Budget.

The Borough intends on implementing a Stormwater Assessment User Fee because the current funding strategy is no longer feasible because of:

- ▶ Increase in flooding and water quality issues
- ▶ **Unfunded** stormwater mandates from PADEP and EPA, including stormwater BMP projects
- ▶ Aging infrastructure
- ▶ Competition with other municipal services and needs



What is an Assessment Fee?

- ▶ A fee collected solely for the purposes of improving water quality, funding stormwater related projects, permits, infrastructure, and public education and outreach
- ▶ This fee provides the user with various stormwater related services, much like a sewer fee, trash collection fee, or water fee
- ▶ The collection of the fee is enabled by the Pennsylvania Borough Code
- ▶ **All money collected can only be used for stormwater management**

Summary of Parcels within the Borough	
Total Number of Parcels	1,902
Tax Exempt Parcels	47
Taxable Parcels	1,855

Approximate Annual Expenses

Determining expenses to provide an appropriate level of service

Description	2018	2018 Projected	2019	2020	2021	2022	2023
Expenses:							
Office							
Salary of Staff	\$ -	\$ -	\$ 61,000.00	\$ 63,440.00	\$ 66,612.00	\$ 69,942.60	\$ 73,439.73
MS4 Coordinator - Shared	\$ -	\$ -	\$ 60,000.00	\$ 61,800.00	\$ 63,654.00	\$ 65,563.62	\$ 67,530.53
Advertising	\$ -	\$ -	\$ 1,500.00	\$ 1,530.00	\$ 1,560.60	\$ 1,591.81	\$ 1,623.65
Printing	\$ -	\$ -	\$ 1,500.00	\$ 250.00	\$ 250.00	\$ 250.00	\$ 250.00
Engineering Fees-MS4	\$ 33,000.00	\$ 25,000.00	\$ 40,000.00	\$ 30,000.00	\$ 25,000.00	\$ 26,325.00	\$ 40,000.00
Engineering Fees-MS4 BMP Implementation	\$ 29,940.00	\$ 29,940.00	\$ 15,000.00	\$ 15,413.88	\$ 28,661.30	\$ -	\$ 50,000.00
Engineering Fees - SWM System Replacement	\$ -	\$ -	\$ -	\$ -	\$ 25,000.00	\$ -	\$ 27,500.00
Other Services							
Right-of-way Rental	\$ -	\$ -	\$ -	\$ -	\$ 4,304.63	\$ 3,943.55	\$ -
Permits & Fees	\$ 500.00	\$ -	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00	\$ 500.00
Stormwater Management and Control							
Misc. Repairs	\$ 5,000.00	\$ -	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Infrastructure Replacement	\$ 15,000.00	\$ -	\$ -	\$ -	\$ 175,000.00	\$ -	\$ 200,000.00
MS4 BMPs	\$ 160,000.00	\$ -	\$ 146,760.00	\$ -	\$ 86,092.50	\$ 78,871.00	\$ -
Minimum Control Measures	\$ 2,500.00	\$ -	\$ 5,000.00	\$ 5,250.00	\$ 5,512.50	\$ 5,788.13	\$ 6,077.53
Street Sweeping - Disposal	\$ -	\$ -	\$ 25,000.00	\$ 26,000.00	\$ 27,040.00	\$ 28,121.60	\$ 29,246.46
Street Sweeping - Water	\$ -	\$ -	\$ 15,000.00	\$ 15,600.00	\$ 16,224.00	\$ 16,872.96	\$ 17,547.88
Equipment							
Repairs	\$ -	\$ -	\$ 3,500.00	\$ 3,675.00	\$ 3,858.75	\$ 4,051.69	\$ 4,254.27
Purchase	\$ -	\$ -	\$ -	\$ -	\$ 35,000.00	\$ 35,000.00	\$ 35,000.00
Debt Service							
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Legal							
	\$ 1,000.00	\$ 500.00	\$ 3,500.00	\$ 5,500.00	\$ 3,100.00	\$ 3,400.00	\$ 1,000.00
IT Expenses							
	\$ -	\$ -	\$ 14,000.00	\$ 6,000.00	\$ 6,180.00	\$ 6,365.40	\$ 6,556.36
Billing							
	\$ -	\$ -	\$ 2,500.00	\$ 2,575.00	\$ 2,652.25	\$ 2,731.82	\$ 2,813.77
Misc. Expenditures							
	\$ -	\$ -	\$ 1,500.00	\$ 1,650.00	\$ 1,815.00	\$ 1,996.50	\$ 2,196.15
Transfer to General Fund							
	\$ -	\$ 19,740.00	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Transfer to Reserve							
	\$ -	\$ -	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 20,000.00	\$ 20,000.00
	\$ 246,940.00	\$ 75,180.00	\$ 421,260.00	\$ 264,183.88	\$ 603,017.53	\$ 381,315.67	\$ 595,536.34

Equivalent Tenth of Acre Unit (ETU)

- ▶ The total deeded acreage, divided by 0.1
- ▶ 1 ETU = \$7.70/month
- ▶ Based upon County parcel data
- ▶ All properties will be charged based upon the total number of ETUs for that parcel at a minimum of 1 ETU

How did we determine the monthly ETU cost?

- ▶ The overall stormwater system costs were distributed over the total number of ETUs to come up with a fiscally responsible funding program

Single Family Residential ETUs	Adjusted Equivalent Tenth Unit for Billing	Monthly Bill
1	1	\$ 7.70
2 to < 5	2	\$ 15.40
5 to <10	3	\$ 23.10
10 to < 15	4	\$ 30.80
15 to < 20	5	\$ 38.50
20+	6	\$ 46.20

All Non-Single Family Residential properties will be charged based upon the total number of ETUs for that parcel at a minimum of 1 ETU

ETU Fee Example – Residential #1

15

505 OHIO AVENUE

Deeded Acreage = 0.34 ac

Tenth of Acres = 3.4

Round down = 3

SFR adjusted ETU= 2 ETUs

**Stormwater Assessment User Fee =
\$15.40/month, \$184.80/year**



ETU Fee Example – Residential #2

16

61 NORTH NINTH STREET

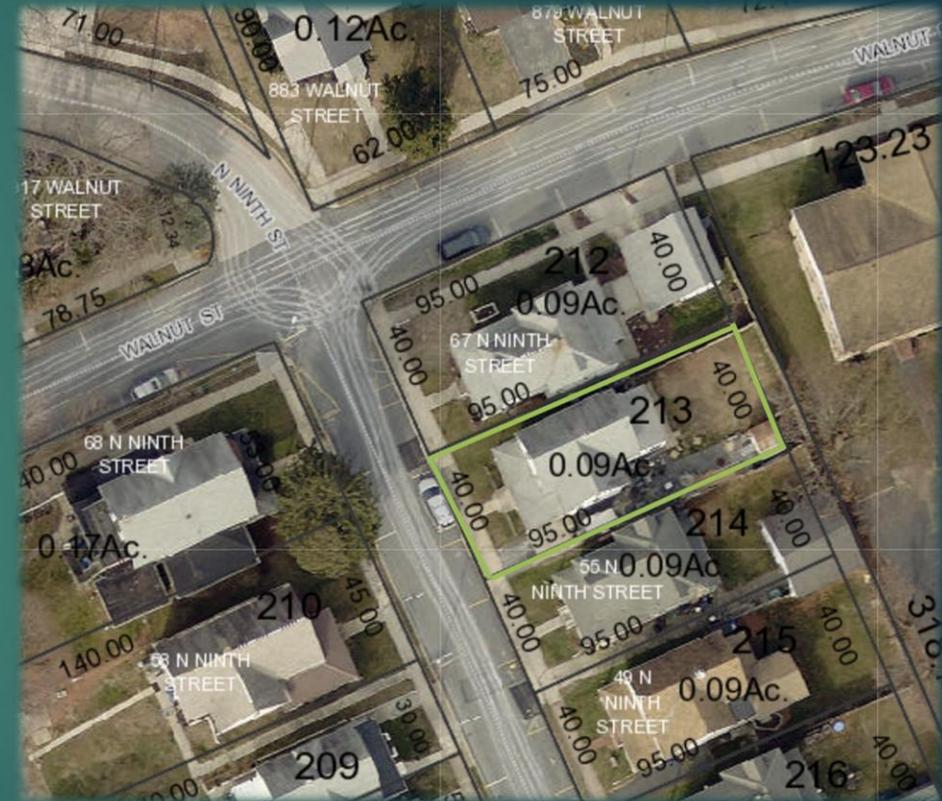
Deeded Acreage = 0.09 ac

Tenth of Acres = 0.9

Round down = 1

SFR adjusted ETU = 1 ETUs

**Stormwater Assessment User Fee =
\$7.70/month, \$92.40/year**



ETU Fee Example – Non-Residential # 1

17

271 Market Street

Deeded Acreage = 0.95 ac

Tenth of Acres = 9.5

Round Down = 9

Total ETUs = 9 ETUs

**Stormwater Assessment Fee =
\$69.30/month, \$831.60/year**



Existing SWM Facilities

- ▶ SWM Committee evaluated the impact of potential credits
- ▶ In the first two years to allow for establishment of the fund, stormwater credits will not be offered
- ▶ The Borough intends to establish a policy to allow for implementation of credits in the future



Rehabilitating Our Waterways

20

