

Storm Sewer Utility

Town Council October 14, 2019



Mission Statement

The Storm Sewer Utility is dedicated to improving health, safety and welfare in the Borough of Chambersburg by providing for the safe and efficient capture and conveyance of stormwater runoff resulting from development by enforcing the Borough's Stormwater Management Ordinance, by maintaining compliance with the Borough's municipal separate storm sewer system (MS4) permit and through construction and maintenance of the Borough's storm sewer system according to sound financial resource and capital improvements management.



STORM SEWER UTILITY STAFF
Andy Stottlemyer, Storm Sewer System Manager
Chris Werner, Storm Sewer System Inspector
Cindy Harr, Secretary II
Brian Fogal, Civil Engineering Supervisor
Chris Bain, GIS Manager
Rod Shuman, GIS Technician
Phil Wolgemuth, Assistant to the Borough Manager

Storm Sewer System

Borough storm sewer system is comprised of the following:

72 miles of pipe

32 miles of open channels

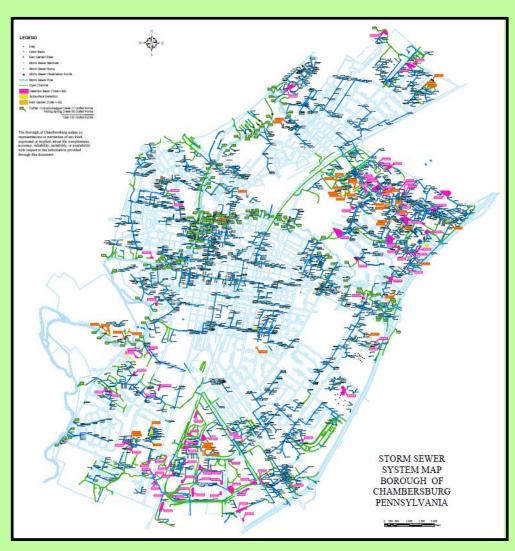
2,758 inlets

132 outfalls to Conococheague Creek and Falling Spring Creek

86 detention basins

40 rain gardens

13 subsurface detention areas



MS4 Permit



The Borough municipal separate storm sewer system (MS4) operates under Pennsylvania Department of Environmental Protection NPDES General Permit No. PAG 133704, of which coverage commenced on June 1, 2018 and will expire at midnight on March 15, 2023.

In 2018 a new NPDES General Permit, along with a Chesapeake Bay Pollutant Reduction Plan, was approved by the Pennsylvania Department of Environmental Protection. The Borough has until May 31, 2023 to achieve pollutant loading reductions for sediment, total nitrogen, and total phosphorous

The MS4 Permit requires the Borough to operate a stormwater management program to address the following Minimum Control Measures:

- MCM 1. Public Education and Outreach on Stormwater Impacts
- MCM 2. Public Involvement and Participation
- MCM 3. Illicit Discharge Detection and Elimination
- MCM 4. Construction Site Stormwater Runoff Control
- MCM 5. Post-Construction Stormwater Management in New Development and Redevelopment
- MCM 6. Pollution Prevention and Good Housekeeping

Storm Sewer Utility started operation on January 1, 2015 by collecting **Storm Sewer Pollution Control Fee** at \$3 per sanitary sewer connection.

size, parking lot runoff can also be "disconnected" by draining to a lawn area, rain garden or other on-site infiltration or treatment system. Realistically, all development in the Borough since 2004 that was designed according to the Stormwater Management Ordinance – and incorporates BMPs – could qualify for some type of credit. Development that occurred prior to 2004 could qualify for credit by retrofitting the property with BMPs.

PROPOSED SCHEDULE FOR STORM SEWER UTILITY IMPLEMENTATION

This report is intended to present a sustainable funding approach for the Borough's stormwater management program for further review and consideration by Town Council. If a storm sewer utility is desired, the recommended schedule for implementation is outlined below:

YEAR 1 AND 2

- Adopt Ordinance establishing storm sewer utility to be managed by the Borough Manager and Land Use and Development Director.
- Hire a Storm Sewer System Manager who will responsible for day-to-day management of the storm sewer utility, storm sewer system and stormwater management program.
- Secure office space, purchase office equipment and vehicle for Storm Sewer System Manager.
- Administer MS4 Permit Minimum Control Measures and implement Chesapeake Bay Pollutant Reduction Plan.
- Enforce the Floodplain Management Ordinance.
- Hire GIS technician and purchase software to analyze impervious cover and establish ERU or hire an
 engineering firm to conduct the analysis.

YEAR 3 AND 4

- Evaluate storm sewer system maintenance needs and establish a capital improvement program and personnel plan to maintain system and implement program.
- Establish storm sewer utility rate structure based on ERU.
- Hire an engineering firm to establish a program to monitor and model stormwater system flow and recommend strategies to implement BMP's to address problem areas.
- Establish storm sewer utility credit program and Stormwater Credit Manual.
- Evaluate areas prone to flooding and establish corrective measures.
- Consider moving street sweeping and fall leaf collection operation from General Fund to storm sewer utility.

YEAR 5

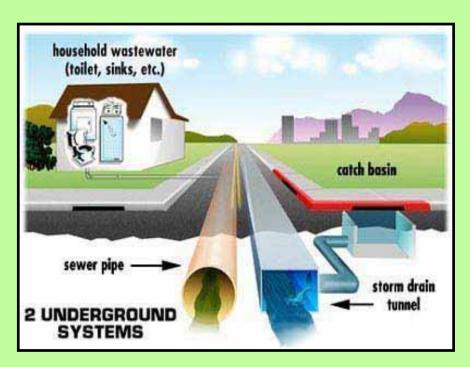
- Implement rate structure based on ERU.
- Implement credit program.
- Implement capital improvements program.
- Hire personnel necessary to maintain system and implement capital improvements program.

YEAR 1: 2015

- Hired Andy Stottlemyer as Storm Sewer System Manager.
- Issued 24 Stormwater Management Code violation notices.
- Largest capital improvements expenditure was \$82,220 paid to D.L. George & Sons Construction Company to complete the U.S. Route 11 inlet replacement project.

• Revenue: \$277,482.58

• Expenditures: \$188,488.63



YEAR 2: 2016

- Promoted Rodney Shuman, GIS Technician, from part-time to full-time to provide additional help with GIS and storm sewer system facility location and mapping.
- Storm Sewer Utility featured in ICMA TV video about Chambersburg.
- Issued 52 Stormwater Management Code violation notices.
- Completed Norland/Fifth Avenue storm sewer system improvements in conjunction with North Chambersburg Improvements Project, first BMP project from Chesapeake Bay Pollutant Plan.
- Cleared debris from Falling Spring Creek between North Fourth Street and Falling Spring Creek.
- Largest capital improvements expenditure was \$49,575 paid to Fayetteville Contractors to complete the West King Street Storm Sewer Improvements Project.
- Worked with GMS Funding Solutions to secure grants totaling \$423,114 for the Rhodes
 Drive BMP Project.
- Revenue: \$297,790.63
- Expenditures: \$261,244.69

YEAR 3: 2017

- Storm Sewer Pollution Control Fee increased from \$3 to \$4 per month per sanitary sewer connection (\$36 to \$48 per year per connection).
- Worked with Town Council, Borough Manager and Borough Solicitor to coordinate
 Request for Proposals that led to Herbert, Rowland & Grubic, Inc. (HRG) being hired as
 the Borough's planning consultant for the Storm Sewer Utility Rate Structure and Credit
 Program and as engineering consultant for all stormwater management matters.
- Issued 66 Stormwater Management Code violation notices.
- Staff met with Hamilton Township to discuss providing Stormwater Management Program Administrative Services.
- Met with each department head to review Borough Facilities and Operations Report and discuss how it impacts facilities and activities they are responsible for.
- Largest capital improvements expenditure was \$55,750 paid to Affordable Excavating and Hauling to complete the Catherine Street Storm Sewer Improvements Project.
- Revenue: \$394,485.25
- Expenditures: \$297,802.36

YEAR 4: 2018

- Town Council approved Intergovernmental Cooperation Agreement with Hamilton Township to provide Stormwater Management Program Administrative Services.
- Staff met with St. Thomas Township to discuss providing Stormwater Management Program Administrative Services.
- Worked with HRG to compile information for Storm Sewer Utility Rate Structure and Credit Program and upcoming Advisory Committee meetings, most notably aerial photography for impervious coverage analysis.
- Worked with Director of Finance to ensure new software accommodates needs of Storm Sewer Utility functions.
- Implemented employee training program to ensure personnel comply with storm sewer system maintenance and pollution prevention measures.
- Issued 26 Stormwater Management Code violation notices.
- Completed Rhodes Drive BMP Project that included bio-retention area and porous paver walking path on Tower at Falling Spring property, second BMP project proposed from Chesapeake Bay Pollutant Plan.
- Completed new storm sewer system for Elder Street Improvements Project and Central Parking Lot Project to install new inlets, pipes and bio-swale and to repair existing inlet and pipes to address flooding.
- Largest capital improvements expenditures were \$411,967.19 for Rhodes Drive BMP Project and \$87,057.17 for Central Parking Lot Project.
- Expended state and federal grants totaling \$389,924 for the Rhodes Drive BMP Project.
- Revenue: \$412,176.77 (8,587 sanitary sewer connections)
- Expenditures: \$771,448.08

YEAR 5: 2019

- Hired Chris Werner as part-time Storm Sewer System Inspector.
- Town Council approved Intergovernmental Cooperation Agreement with St. Thomas Township to provide Stormwater Management Program Administrative Services.
- First time to file MS4 Annual Reports for Borough, Hamilton Township and St. Thomas Township.
- Worked with GMS Funding Solutions to secure Watershed Restoration Protection Program grant totaling \$65,000 for North Fourth Street Streambank Restoration Project, third BMP project proposed through Chesapeake Bay Pollutant Plan.
- Established plan and funding to Install 'Do Not Feed Birds' signs along Falling Spring Creek.
- Worked with Electric Department to purchase Flood Detection and Warning System to be installed on North Fourth Street.
- Issued 10 Stormwater Management Code violation notices and worked with Solicitor's Office to prepare Agreement with Franklin Southgate Company, LLC to address Code violations associated with the storm sewer system at Southgate Shopping Center, as approved by Town Council in June.
- Completed Storm Sewer Utility Rate Structure and Credit Program that includes analysis and recommendations
 for changes to Storm Sewer Pollution Control fee, Stormwater Management Code, Storm Sewer Utility staffing
 and operations and new maintenance and capital improvements planning and budgeting procedures for future,
 including BMP implementation proposed through Chesapeake Bay Pollutant Reduction Plan.
- Estimated Revenue: \$425,132.76
- Estimated Expenditures: \$460,650.40
- Expenditures exceed revenue because HRG costs associated with Storm Sewer Utility Rate Structure and Credit Program (\$103,500) planned in 2017 were largely invoiced in 2019. Budgeted funds not spent in 2017 and 2018 were transferred to Capital Reserve but will be transferred back to Operating Budget to cover difference between 2019 revenue and expenditures. Town Council will be asked to consider approval on October 28, 2019.

Intergovernmental Cooperation Agreements

Town Council approved Intergovernmental Cooperation Agreements with Hamilton Township and St. Thomas Township to provide Stormwater Management Program Administrative Services for their MS4 Permits and Pollutant Reduction Plans that were approved by the Pennsylvania Department of Environmental Protection.



Hamilton Township Public Meeting

Services provided by the Storm Sewer Utility:

- Prepare MS4 Annual Report
- Public education, outreach, involvement and participation
- Code enforcement
- Develop and implement operation and maintenance program for Township facilities
- Develop and implement training program for Township employees to ensure prevention of pollutants from municipal operations to the MS4

\$4,179.27 invoiced for services provided through September 30, 2019.

Herbert, Rowland & Grubic, Inc. (HRG) was the consultant chosen in 2017 to guide Town Council, staff and the community through a detailed planning and analysis process to change from the current \$4 per month Storm Sewer Pollution Control Fee to a fee schedule based on lot impervious coverage along with a credit program to create incentives for property owners to reduce the amount of stormwater generated on their property.

ADVISORY COMMITTEE MEMBERS

Carla Christian, YMCA
Alice Elia, Council Member
Tanya Nitterhouse, Sunnyhill Properties
Ken Adams, King Street Church
Herb Dolaway, Council Member
Mike Kalathas, The Orchards
Tim Murray, Chambersburg Hospital
Edward Peters, Chambersburg Area School District
Phil Tarquino, Franklin County Planning Department
Jason Warrenfeltz, Wilson College
Bernie Washabaugh, Jr., Second State Enterprises









Bruce Hulshizer

Bill Kick

Bruce Hulshizer and Bill Kick from HRG led seven Advisory Committee public meetings between February and August 2019.

HRG and Borough staff led public meeting on September 24, 2019.

Borough staff led public meetings with business owners and tax-exempt property owners on September 25, 2019 and September 26, 2019.

Advisory Committee discussed following challenges and opportunities:

- Assess and clean pipe system 2020-2022.
- System needs maintenance/repairs totaling \$100,000 in 2020 with increase to \$250,000 in 2021-2023.
- System needs capital improvements, along with Chesapeake Bay Pollutant Reduction Plan BMP projects, totaling \$8.6 by 2023.
- Continue to seek grant funding sources for system improvements.
- Monitor and plan for changes and associated expenditures to be required through next MS4 Permit effective in 2024.
- Like other Borough utilities, funding for system operation and maintenance will be constant forever, regardless of future MS4 Permit requirements.
- As much as possible, implement incremental increases to program and fees.

Year	Annual Revenue Need (M)
2020	\$1.0
2021	\$1.2
2022	\$1.6
2023	\$1.8

On August 20, 2019 the Advisory Committee recommended the following:

RATE STRUCTURE

All single-family residential properties pay same monthly rate. One Equivalent Residential Unit (ERU) equivalent to 2,920 SF of Impervious Area (IA), which is average impervious area (IA) of all single-family residential properties in Borough.

RATE

Retain \$4 per month Storm Sewer Pollution Control Fee through June 2020 but change to \$5 per month in July 2020.

Single-family residential properties charged one ERU and all other developed properties charged ERU based on amount of IA.

CREDIT AND APPEAL POLICY

Offer credits as means for customers to reduce monthly fees by implementing Best Management Practice activities to reduce the contribution of stormwater and pollutants to the storm sewer system and/or to aid in meeting MS4 Permit obligations. Single-family residential properties would benefit from Education Credits to provide small percentage monthly fee reduction. Non-single-family residential properties eligible for larger percentage monthly fee reductions (up to 30%) by implementing structural BMP's, which would have to be maintained in perpetuity to retain credit. There will also be appeal process if property owner feels their IA is incorrect.

SINGLE-FAMILY RESIDENTIAL PROPERTIES

- 1. Attached Dwelling (Townhouse): Building designed for and intended to be occupied exclusively as a residence for one family and having a party wall on each side in common with an adjoining dwelling.
- 2. Single-Family Detached Dwelling: Building designed for and used exclusively as a residence for one family and having no party wall in common with any adjacent building.
- 3. Single-Family Semidetached Dwelling (Duplex): Building designed for and used exclusively as a residence for one family and having one party wall in common with an adjacent building.
- 4. Two-Family Dwelling: Building designed for and intended to be occupied exclusively as a residence for two families living independently of each other.



January-June 2020 = \$4 per month July-December 2020 = \$5 per month Attached Dwelling (Townhouse) with 5 units ERU X 5 = \$25 per month or \$300 per year

Single-Family Detached Dwelling ERU X 1 = \$5 per month or \$60 per year

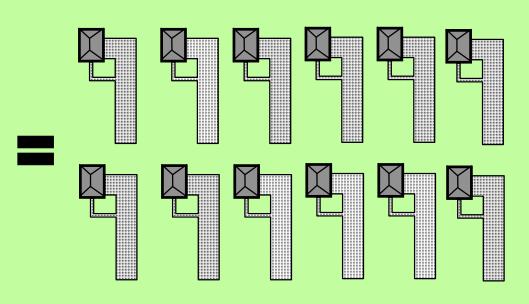
Single-Family Semidetached Dwelling (Duplex) ERU X 2 = \$10 per month or \$120 per year

Two-Family Dwelling ERU X 2 = \$10 per month or \$120 per year

OTHER RESIDENTIAL PROPERTIES

- Multifamily Dwelling: Building designed for and intended to be occupied exclusively as a residence providing living quarters for three or more families living independently of each other.
- 2. Garden Apartment: A multifamily dwelling consisting of two or more stories and containing one-story dwelling units under one ownership.





Storm Sewer Pollution Control Fee

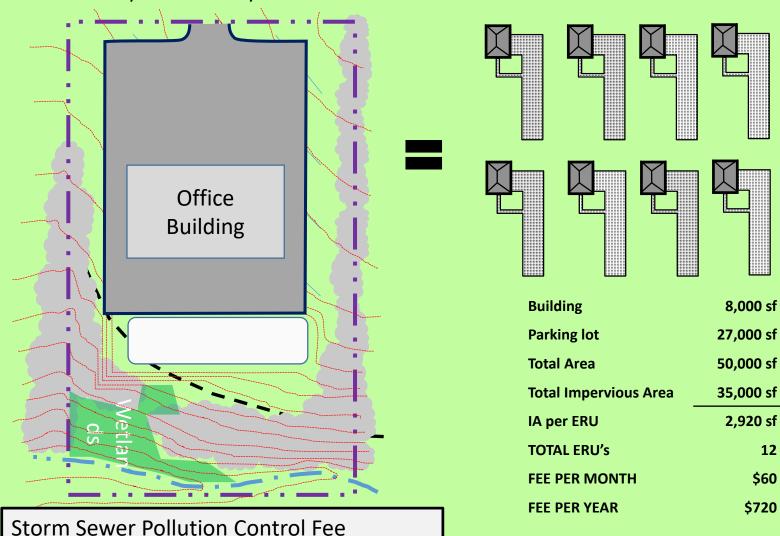
January-June 2020 = \$4 per month July-December 2020 = \$60 per month (12 ERU X \$5 per month) One 12-unit garden apartment building

ERU X 12 = \$60 per month or \$720 per year

COMMERCIAL/INDUSTRIAL/INSTITUTIONAL EXAMPLE

January-June 2020 = \$4 per month

July-December 2020 = \$720 per month (12 ERU X \$5 per month)



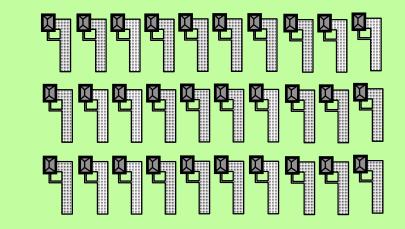
BOROUGH UTILITIES SERVICE CENTER: South Franklin Street





January-June 2020 = \$4 per month

July-December 2020 = \$150 per month (30 ERU X \$5 per month)



UPI 05-1B64.-098.-000000 UPI 05-1B64.-099.-EX0000 UPI 05-1B64.-100.-EX0000

Total Area	147,458 sf
Total Impervious Area	86,304 sf
IA per ERU	2,920 sf
TOTAL ERU's	30
FEE PER MONTH	\$150
FEE PER YEAR	\$1,800

YEAR 6: 2020 Revenue

Storm Sewer Pollution Control Fee \$4 per month per sanitary	\$204,000
sewer connection from January 1, 2020 through June 30, 2020	\$204,000
Storm Sewer Pollution Control Fee \$5 per month ERU from	
July 1, 2020 through December 31, 2020	\$786,000
Hamilton Township and St. Thomas Township	\$10,000
TOTAL	\$1,000,000

YEAR 6: 2020 Operations

Storm Sewer System Manager (Full-time salary and benefits)	\$112,793
Storm Sewer System Inspector (Change from part-time to full-time salary and benefits)	\$89,874
Secretary I (\$73,414.48 full-time salary and benefits but only 9.72%	
charged to Storm Sewer Utility)	\$7,135
Purchase 2020 Ford pick-up truck (annual rental/maintenance)	\$19,560
Operate 2001 Ford pick-up truck (annual rental/maintenance)	\$14,620
TOTAL	\$243,982

YEAR 6: 2020 Budget

Revenue	\$1,000,000
Operations	\$400,000
Maintenance (Pipe camera/cleaning and general repairs)	\$300,000
Capital Improvements (Construction contracts or grant match)	\$300,000

- Storm Sewer System Inspector to become full-time position.
- Hire Secretary I.
- Move Storm Sewer System Manager and Storm Sewer System Inspector to Utility Departments Addition to Borough Hall.
- Establish system to manage tax parcel data for new software and Storm Sewer Pollution Control Fee collection. Currently 8,377 customers but that number will increase when billing changed from per sanitary sewer connection to ERU and IA, which will include some tax parcels that have never received utility bill from Borough.
- Prepare and advertise bid specifications to hire contractor for pipe camera inspection and cleaning.
- Establish better capital improvements planning program by using data from pipe camera inspection.
- Work with GMS Funding Solutions to seek grant funding for South Main Street Stream Restoration and Riparian Buffer Project, fourth BMP project proposed through Chesapeake Bay Pollutant Plan.
- Work with Engineering Office and Community and Economic Development Office to prepare plan to repair Mill Alley stormwater drainage.
- Prepare and advertise bid specifications to hire contractors for Franklin County Courthouse Water
 Discharge Project, North Fourth Street Streambank Restoration Project and Broad Street Storm Sewer
 System Improvements Project.

Next Steps

Draft Ordinance to be advertised in preparation for Town Council to consider approval on December 16, 2019 (or sometime first quarter 2020) to formally adopt new Storm Sewer Pollution Control fee and credit program, to include final appeal and credit manual, to go into effect with issuance of July 2020 utility invoices for June 2020 utility usage.

Seek Town Council approval to distribute utility bill flyer to explain new program.

Continue outreach to explain new program to customers.

