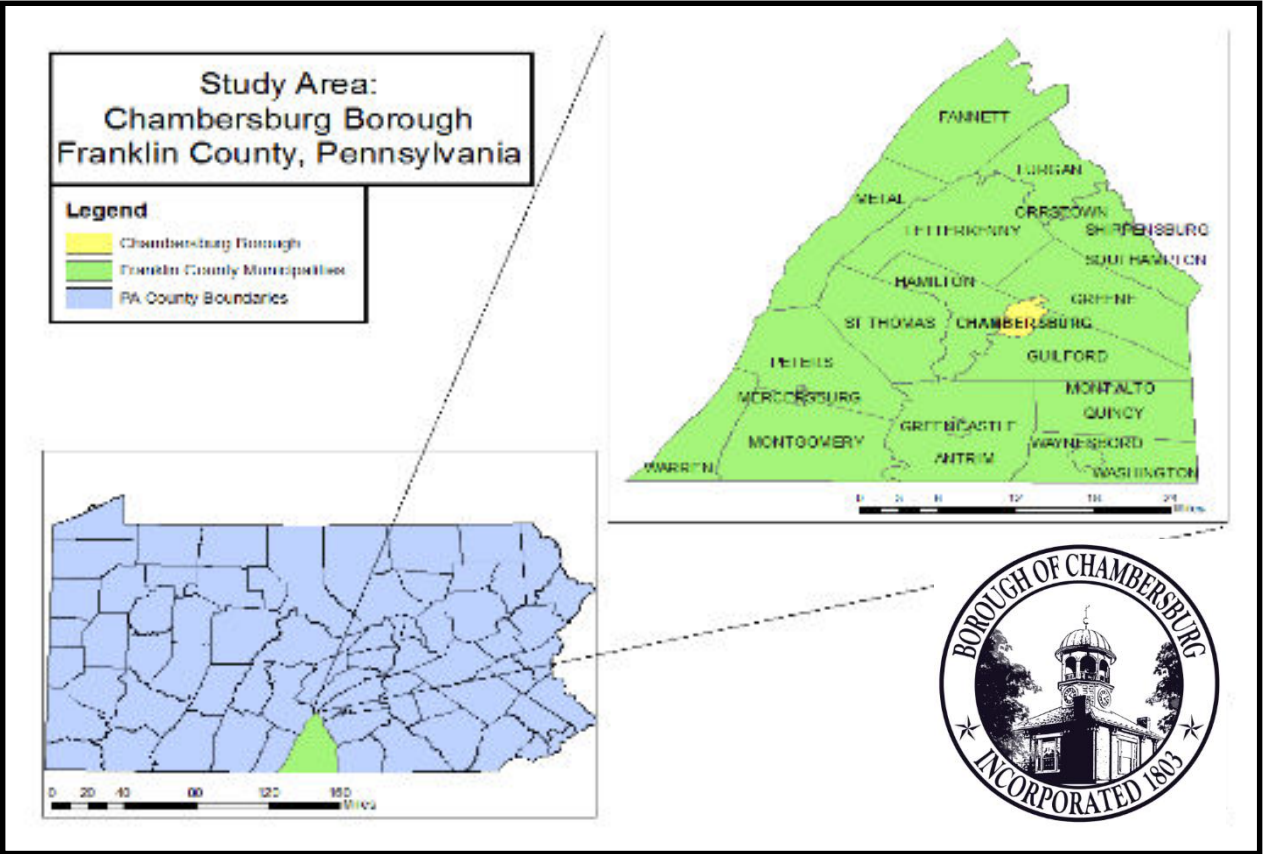


Municipal Separate Storm Sewer System (MS4) Pollutant Reduction Plan Assistance





Phil Wolgemuth – Deputy Borough Manager/Land Use and Development Director
Andy Stottlemyer – Storm Sewer System Manager

We will discuss the planning and implementation process employed for the Borough of Chambersburg Chesapeake Bay Pollutant Reduction Plan as well as our partnerships with Hamilton Township and St. Thomas Township to implement their MS₄ Permit requirements and Chesapeake Bay Pollutant Reduction Plans.

South Mountain Watershed Workshop – January 9, 2020

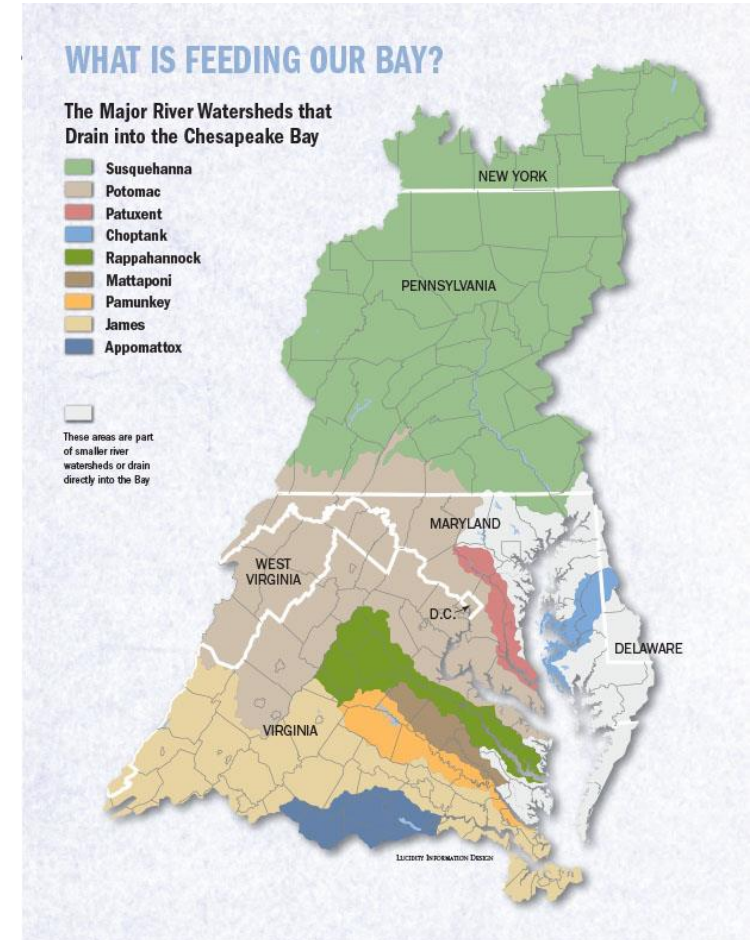


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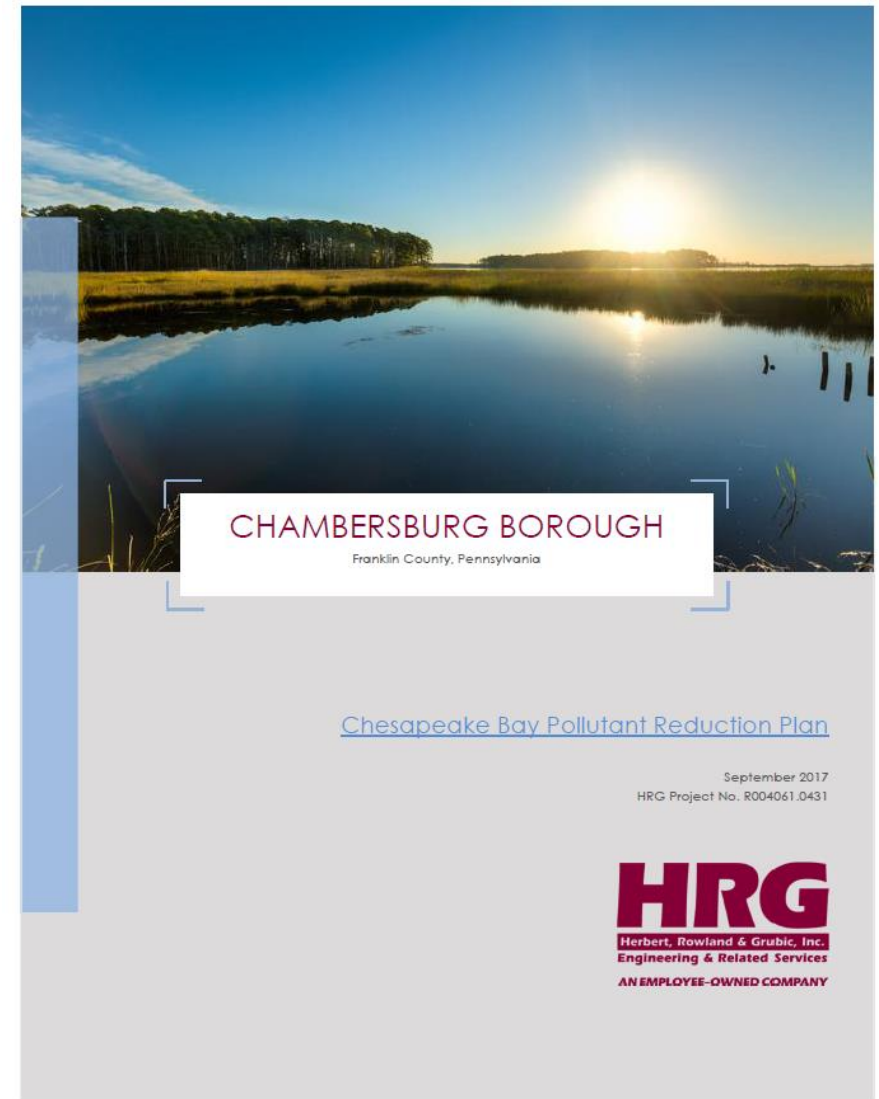


Chesapeake Bay Pollutant Reduction Plans

Implement Best Management Practices (BMPs) to produce tangible improvements to the quality of stormwater discharges in the Chesapeake Bay Watershed.



Herbert, Roland, and Grubic, the Borough's storm sewer engineering consultant, prepared a Chesapeake Bay Pollutant Reduction Plan that was submitted to the Pennsylvania Department of Environmental Protection in 2017 for review along with the Borough's Notice of Intent for general MS4 Permit renewal coverage.



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Best Management Practices projects were approved through the plan which are intended to reduce the amount of nitrogen, phosphorous and sediment that are conveyed into the Falling Spring Creek and Conococheague Creek, which ultimately flows to the Chesapeake Bay via the Potomac River.

Table 6: Proposed BMPs

Site	BMP ID	BMP Type	Drainage Area (acres)	Length (ft)	Pollutant Load Reduction TSS (lbs/yr)
Rhodes Drive	BMP-1A	Bioswale	2.39	n/a	2,766
	BMP-1B	Pervious Pavement	0.31	n/a	81
Fifth Ave Extension	BMP-2	Subsurface Infiltration	6	600	3,879
Elder Street / W Commerce Street	BMP-3A	Subsurface Infiltration	9.2	n/a	5,047
	BMP-3B	Streambank Restoration	n/a	1,400	62,832
	BMP-3C	Subsurface Infiltration	9.18	n/a	5,036
	BMP-3D	Bioretention	4.35	n/a	3,580
Stevens Elementary	BMP-4A	Streambank Restoration	n/a	500	22,440
	BMP-4B	Riparian Buffer	12.38	n/a	6,670
Wilson College	BMP-5	Bioretention	103.5	n/a	100,368
Mill Creek Acres Park	BMP-6	Bioretention	100	n/a	96,974
Nitterhouse Park	BMP-7	Bioretention	7.2	n/a	5,925
Wolf Ave Rail Trail	BMP-8A	Bioretention Pocket	5.08	100	4,926
	BMP-8B	Bioretention Pocket	4.59	100	4,451
	BMP-8C	Bioretention Pocket	4.02	100	3,898
	BMP-8D	Bioretention Pocket	6.22	100	6,032
	BMP-8E	Bioretention Pocket	5.28	100	5,120
Fourth Street	BMP-9	Streambank Restoration	n/a	250	11,220
South Fourth Street	BMP-10	Subsurface Infiltration	29.3	n/a	16,074
Ludwig Ave Parking Lot	BMP-11	Subsurface Infiltration	2.52	100	1,383
South Main Street	BMP-12A	Stream Restoration	n/a	675	30,294
	BMP-12B	Riparian Buffer	7.06	675	3,804
Sheffler Drive	BMP-13	Riparian Buffer	31.6	n/a	14,447
Total					417,247



Rhodes Drive Bioswale/Pervious Pavement (BMP-1A/1B)

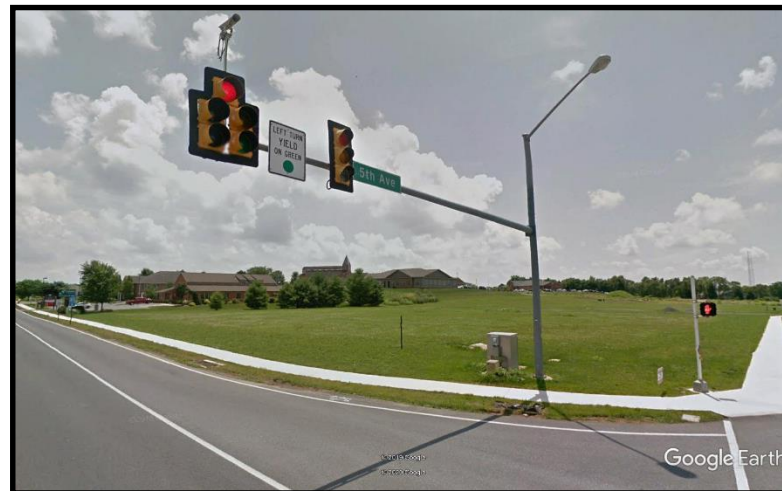
Constructed in 2018 through contract totaling \$411,967.19 with funding below:

- Commonwealth Financing Authority Multimodal Transportation Fund: \$224,665
- Chesapeake Bay Implementation Grant Program: \$115,269
- Franklin County Conservation District Dirt, Gravel and Low Volume Road Maintenance Program: \$50,000
- Storm Sewer Utility Capital Reserve: \$22,033.19



Fifth Avenue Extension Subsurface Infiltration (BMP-2)

Constructed in 2016 as part of North Chambersburg Improvements Project that was funded with Multimodal Transportation Grant totaling \$2,869,907. Total project cost was \$4,099,867 with Chambersburg Health Services providing match totaling \$1,229,960.



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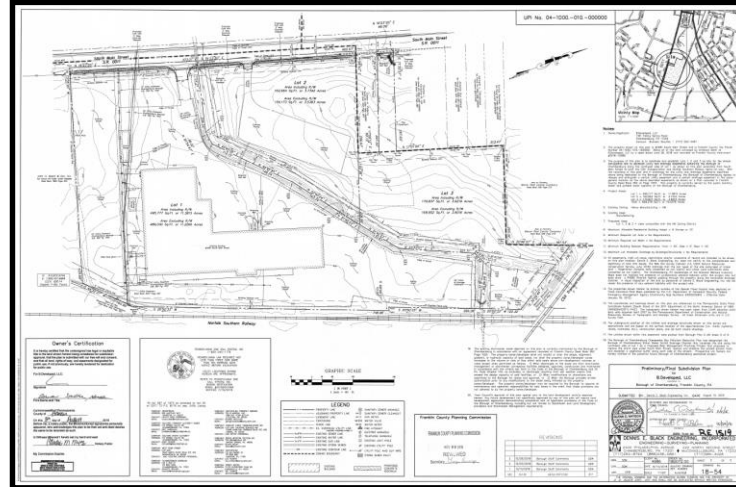
Fourth Street Streambank Restoration (BMP-9)

- In 2019 grant totaling \$65,000 secured through the Pennsylvania Department of Community and Economic Development Watershed Restoration Protection Program for project estimated to cost \$77,394 to be matched with \$12,394 from the Storm Sewer Utility Capital Reserve. To be bid and constructed in 2020.



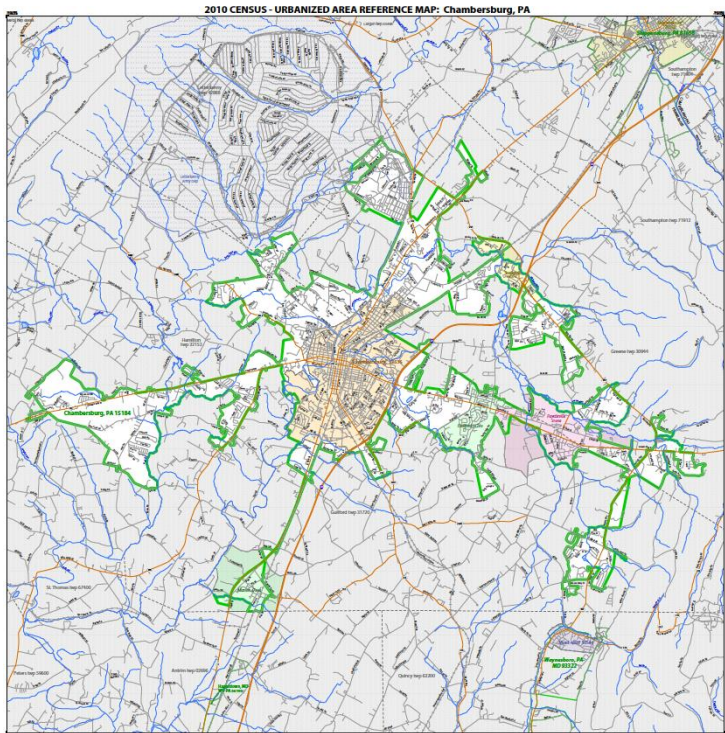
South Main Street Stream Restoration/Riparian Buffer (BMP-12A/12B)

- In 2019 grant application totaling \$210,000 filed with Growing Greener Grant Program for project estimated to cost \$248,352, to be matched with \$38,352 from the Storm Sewer Utility Capital Reserve. If grant secured, to be bid and constructed in 2021.



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 Permit and Pollutant Reduction Plan that were approved by the Pennsylvania Department of Environmental Protection.



Services to be 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



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Suggestions for Success!

- Good working relationship with Pennsylvania Department of Environmental Protection .
- Municipal, community and affected property owner education and support.
- Municipal and grant funding for project implementation.
- Staff or consultant capacity to implement projects.





BOROUGH OF CHAMBERSBURG

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