

Stormwater User Fee Study – Phase 2
Stormwater Services Funding Policy Updated July 2020
 (Additional Material in ***Bold/Italics***)

1. Cash Demand Analysis and Rate Estimation

Personnel: The following tables set forth the long-range financial plan for personnel, identifying current and future staffing needs, by Position.

Table 1 – Personnel Summary

Township Department	Staff Positions	Pay Grade	Salary Midpoint FY19	Year Position Added or Funded by Utility	Percent of Time Dedicated to Stormwater
FTPW	Public Works Director		\$ 89,000		5%
FTPW	Township Engineer	30	\$ 81,000		15%
FTPW	Assistant Township Engineer	27	\$ 70,000		10%
FTPW	Engineer Technician	22	\$ 55,000		10%
FTPW	GIS Technician	21	\$ 52,000		30%
FTPW	GIS Technician	21	\$ 52,000		10%
FTPW	Road Superintendent	26	\$ 67,000		5%
FTPW	Road Foreman	20	\$ 50,000		5%
FTPW	Road Foreman	20	\$ 50,000		10%
FTPW	Road Workers 11 men	17	\$ 467,500		14%
FTPW	MS4 Engineer part time	22	\$ 55,000		100%
FTPW	Stormwater Engineer	27	\$ 72,800	2021	100%
FTPW	Stormwater Foreman	20	\$ 51,500	2027	90%
FTPW	Stormwater Equip Operator	17	\$ 47,834	2027	90%
FTPW	Stormwater Workers (2)	17	\$ 84,000	2023	90%
FTPW	Interns (2) @\$9600 each		\$ 19,200	2021	100%

Over a period of six (6) fiscal years, a dedicated team is identified, adding staff to Township Engineering by converting a part-time position (MS4 Engineer) to full-time (Stormwater Engineer). An additional crew is recommended for Public Works operations, a foreman, equipment operator, and two stormwater workers. The two stormwater workers are added in FY 23 and the foreman and operator added in FY 27 when the purchase of additional equipment is recommended.

Direct Costs: Cost for materials, supplies, training, and equipment as well as professional services are summarized in Table 2.

Table 2 – Direct Cost Summary

	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Equipment Maintenance Costs	\$ 141,030	\$ 144,555	\$ 148,169	\$ 151,873	\$ 155,670	\$ 159,562	\$ 163,551	\$ 167,640
Materials	\$ 14,753	\$ 40,122	\$ 41,125	\$ 42,153	\$ 43,207	\$ 44,287	\$ 45,395	\$ 46,529
Personnel Support	\$ 33,964	\$ 34,813	\$ 35,684	\$ 36,576	\$ 37,490	\$ 38,427	\$ 39,388	\$ 40,373
Contracts/Programs/Equip Purchases	\$ 225,297	\$ 229,958	\$ 236,111	\$ 244,373	\$ 249,358	\$ 256,481	\$ 274,216	\$ 173,588
TOTALS	\$ 415,044	\$ 449,448	\$ 461,090	\$ 474,976	\$ 485,725	\$ 498,758	\$ 522,549	\$ 428,130

Equipment: The Township staff will evaluate the need for additional equipment as the assessment of infrastructure is completed. Currently, in the financial plan is a fund for equipment purchase and replacement, to provide cash on hand when equipment is needed, either new or replacement. The purchase of new equipment will occur only after an analysis of need and utilization is completed.

Establishing a fund for cash purchase of replacement or new equipment follows current practice of “cash funding” for equipment purchases. However, the Township may choose to not purchase, lease purchase equipment financing it over time, or contract for services that would be addressed by additional equipment resources for Public Works. The cost model was evaluated with and without a fund for the cash purchase for replacement or new equipment.

Capital Projects: Costs were identified for capital projects for stormwater infrastructure major repair/replacement outside of roadway-related needs. For capital investments linked to a roadway project, the Transportation Improvement Fund is used for related stormwater improvements within the roadway right-of-way.

Capital projects captured in the stormwater user fee cost of service, total cost summarized in Table 3, include:

1. MS4 Chesapeake Bay Pollutant Reduction Plan Implementation (design, permitting, construction)
2. Park Hill Drainage Improvements
3. Corrugated Metal Pipe (CMP) Lining (5000’ a year)
4. Inlet Repairs (5 a year)
5. Partnership Program (50% match with private property owner for improvements)

Transportation Investment Fund (TIF) Dedicated Tax: Currently, drainage system repairs that are aligned with a roadway project are funded by the TIF program and in the Township’s Five-Year Capital Plan. In addition, neighborhood CMP lining are also identified in the current CIP. The Township recognizes that this may be appropriate for the funding of the CMP program that is identified for stormwater infrastructure repair/replacement; however, over time, the investment in CMP lining should be reviewed with the potential shift to funding by the user-fees for stormwater. The Cost Model captures the CMP program as a stormwater initiative and was developed with several funding scenarios (i.e., continuing the use of the TIF funds for CMP stormwater pipe repair/replacement, transition over time to all stormwater fee funding, and fully funding the CMP lining and/or replacement program through stormwater user fees starting with year one). The CMP capital project is approximately 40% of the overall stormwater program costs in year one.

Total Program Cost Summary: Table 3 summarizes all costs included in the Cash Demand Analysis and Rate Estimate and ***includes the sinking fund for equipment and the CMP capital program.***

	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Operating Costs								
Personnel	\$ 323,652	\$ 334,063	\$ 456,090	\$ 471,014	\$ 486,411	\$ 502,562	\$ 696,260	\$ 720,148
Materials/Supplies	\$ 415,044	\$ 449,448	\$ 461,090	\$ 474,976	\$ 485,725	\$ 498,758	\$ 522,549	\$ 428,130
Capital	\$ 515,000	\$ 2,170,450	\$ 749,914	\$ 810,855	\$ 843,348	\$ 717,471	\$ 753,307	\$ 790,940
Total	\$ 1,253,696	\$ 2,953,961	\$ 1,667,093	\$ 1,756,844	\$ 1,815,484	\$ 1,718,791	\$ 1,972,116	\$ 1,939,218

	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Administration	\$ 63,611	\$ 63,590	\$ 62,507	\$ 64,534	\$ 66,633	\$ 68,809	\$ 66,755	\$ 68,984
MS4	\$ 129,151	\$ 208,750	\$ 256,067	\$ 289,885	\$ 293,844	\$ 137,949	\$ 133,209	\$ 137,401
Infrastructure	\$ 1,060,934	\$ 2,681,621	\$ 1,348,519	\$ 1,402,425	\$ 1,455,007	\$ 1,512,033	\$ 1,772,152	\$ 1,732,834
Totals	\$ 1,253,696	\$ 2,953,961	\$ 1,667,093	\$ 1,756,844	\$ 1,815,484	\$ 1,718,791	\$ 1,972,116	\$ 1,939,218

Table 4 provides an overall summary of the Program for the Cash Demand Analysis and Rate Estimate without the Equipment Purchase Fund.

Table 4 - Eight Year Plan By Expense Type and Program Focus - NO Equipment Purchase Fund

		FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Operating Costs									
	Personnel	\$ 323,652	\$ 334,063	\$ 456,090	\$ 471,014	\$ 486,411	\$ 502,562	\$ 696,260	\$ 720,148
	Materials/Supplies	\$ 308,163	\$ 342,568	\$ 354,209	\$ 368,095	\$ 378,844	\$ 391,877	\$ 415,668	\$ 347,875
Capital									
		\$ 515,000	\$ 2,170,450	\$ 747,164	\$ 805,203	\$ 834,636	\$ 705,530	\$ 737,959	\$ 771,998
Total		\$ 1,146,815	\$ 2,847,080	\$ 1,557,462	\$ 1,644,312	\$ 1,699,891	\$ 1,599,969	\$ 1,849,887	\$ 1,840,022

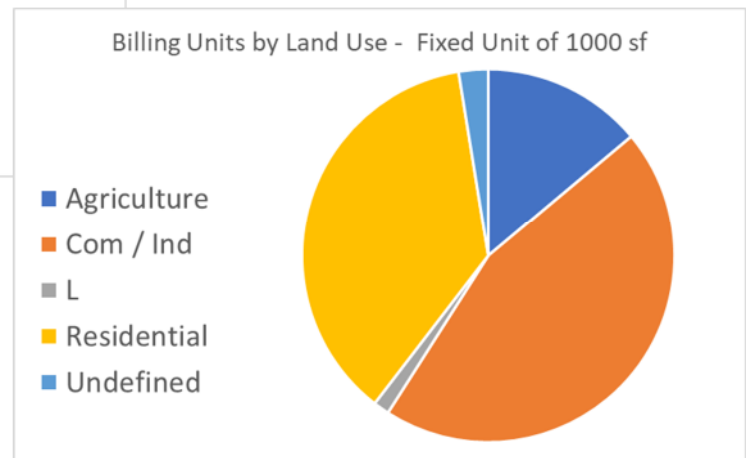
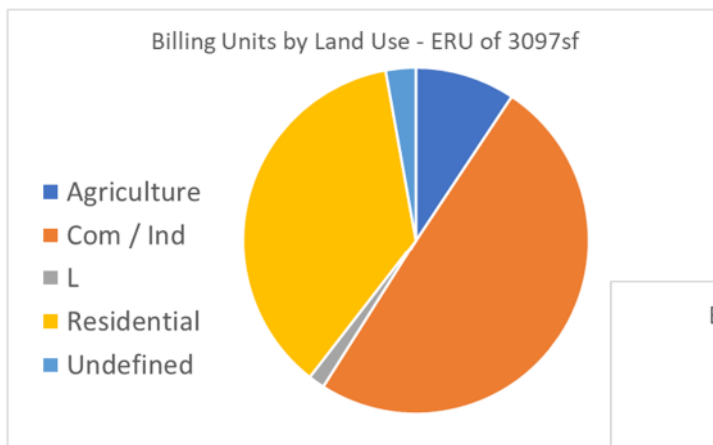
		FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Administration		\$ 63,611	\$ 63,590	\$ 62,507	\$ 64,534	\$ 66,633	\$ 68,809	\$ 66,755	\$ 68,984
MS4		\$ 129,151	\$ 208,750	\$ 256,067	\$ 289,885	\$ 293,844	\$ 137,949	\$ 133,209	\$ 137,401
Infrastructure		\$ 954,053	\$ 2,574,740	\$ 1,238,888	\$ 1,289,893	\$ 1,339,414	\$ 1,393,211	\$ 1,649,923	\$ 1,633,637
Totals		\$ 1,146,815	\$ 2,847,080	\$ 1,557,462	\$ 1,644,312	\$ 1,699,891	\$ 1,599,969	\$ 1,849,887	\$ 1,840,022

Both program elements (equipment fund and CMP program funding) will be presented to the Board for consideration.

Billing Units:

During June and July, staff worked with the Wood team to update and refine the mapping of impervious features, with a specific focus on land classified as “agriculture.” Many of the parcels with land use classification defined by the County in this category were, in fact, residential properties with no agricultural business-related impervious area. Using the fixed-square-foot billing unit, the actual use of the property is not relevant; however, for the ERU-approach, it is important and, therefore, the residential-use-only properties were reclassified in the billing file to residential. For consistency, homes located on agriculture-business-use properties were also identified and, in the ERU analysis, considered as “one billing unit.” The impervious area for agricultural business use were separately identified and measured.

Billing unit distribution by land use is shown in the two graphs below.



Rate Estimates: Based on the policy discussions for the allocation of costs across all properties, using the Growth Area/Non-Growth Area allocation with an “all properties” allocation for administration, MS4 compliance and related capital costs, a cash-demand model was developed for each service area and for several funding scenarios. The cash-demand models were analyzed using an Equivalent Residential Unit (ERU) and fixed value billing unit of 1,000sf to determine the number of billing units by All Properties, Growth Area, and Non-Growth Area.

NOTE: All rate estimates shown do NOT take into consideration potential credits that would be awarded on a parcel basis.

Summary of all Rates Analyzed:

	ERU Rate Comparison by FY and Funding Options							
	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Without TIF and Without Equipment Fund - ERU Residential Rate - Growth Area	\$ 102	\$ 108	\$ 124	\$ 134	\$ 137	\$ 128	\$ 148	\$ 152
Without TIF and Without Equipment Fund - ERU Residential Rate - Non-GA	\$ 48	\$ 54	\$ 66	\$ 72	\$ 72	\$ 63	\$ 69	\$ 73
With TIF Transition and Without Equipment Fund - ERU Residential Rate - Growth Area	\$ 57	\$ 71	\$ 92	\$ 120	\$ 136	\$ 132	\$ 146	\$ 153
With TIF Transition and Without Equipment Fund - ERU Residential Rate - Non-GA	\$ 32	\$ 40	\$ 59	\$ 67	\$ 73	\$ 63	\$ 70	\$ 77
Without TIF and With Equipment Fund - ERU Residential Rate - Growth Area	\$ 109	\$ 112	\$ 140	\$ 142	\$ 146	\$ 137	\$ 156	\$ 164
Without TIF and With Equipment Fund - ERU Residential Annual Fee - Non-GA	\$ 51	\$ 54	\$ 71	\$ 75	\$ 76	\$ 65	\$ 71	\$ 79
With TIF and With Equipment Fund - ERU Residential Rate - Growth Area	\$ 68	\$ 78	\$ 90	\$ 97	\$ 97	\$ 86	\$ 106	\$ 113
With TIF and With Equipment Fund - ERU Residential Rate - Non-GA	\$ 37	\$ 43	\$ 54	\$ 61	\$ 61	\$ 50	\$ 54	\$ 61
With TIF and Without Equipment Fund - ERU Residential Rate - Growth Area	\$ 57	\$ 65	\$ 81	\$ 88	\$ 88	\$ 81	\$ 98	\$ 102
With TIF and Without Equipment Fund - ERU Residential Rate - Non-GA	\$ 32	\$ 37	\$ 53	\$ 56	\$ 57	\$ 47	\$ 53	\$ 57
	1000 sf Fixed Billing Unit by FY and Funding Options							
	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Without TIF and Without Equipment Fund - 1000 sf Fixed Unit - Growth Area	\$ 37	\$ 39	\$ 41	\$ 41	\$ 42	\$ 44	\$ 50	\$ 50
Without TIF and Without Equipment Fund - 1000 sf Fixed Unit - Non-GA	\$ 17	\$ 17	\$ 18	\$ 19	\$ 20	\$ 19	\$ 20	\$ 20
With TIF Transition and Without Equipment Fund - 1000 sf Fixed Unit - Growth Area	\$ 19	\$ 21	\$ 33	\$ 39	\$ 45	\$ 46	\$ 46	\$ 48
With TIF Transition and Without Equipment Fund - 1000 sf Fixed Unit - Non GA	\$ 10	\$ 12	\$ 17	\$ 18	\$ 18	\$ 18	\$ 18	\$ 20
Without TIF and with Equipment Fund - 1000 sf Fixed Unit - Growth Area	\$ 36	\$ 38	\$ 45	\$ 47	\$ 48	\$ 46	\$ 52	\$ 54
Without TIF and with Equipment Fund - 1000 sf Fixed Unit - Non-GA	\$ 13	\$ 16	\$ 20	\$ 21	\$ 21	\$ 18	\$ 18	\$ 20
With TIF and With Equipment Fund - 1000 sf Fixed Unit- Growth Area	\$ 22	\$ 24	\$ 31	\$ 32	\$ 33	\$ 30	\$ 36	\$ 38
With TIF and With Equipment Fund - 1000 sf Fixed Unit - Non-GA	\$ 10	\$ 12	\$ 16	\$ 17	\$ 17	\$ 14	\$ 16	\$ 18
With TIF and Without Equipment Fund - 1000 sf Fixed Unit - Growth Area	\$ 19	\$ 21	\$ 28	\$ 29	\$ 30	\$ 27	\$ 33	\$ 35
With TIF and Without Equipment Fund - 1000 sf Fixed Unit - Non-GA	\$ 10	\$ 12	\$ 15	\$ 16	\$ 16	\$ 13	\$ 15	\$ 17