



Stormwater Program Update





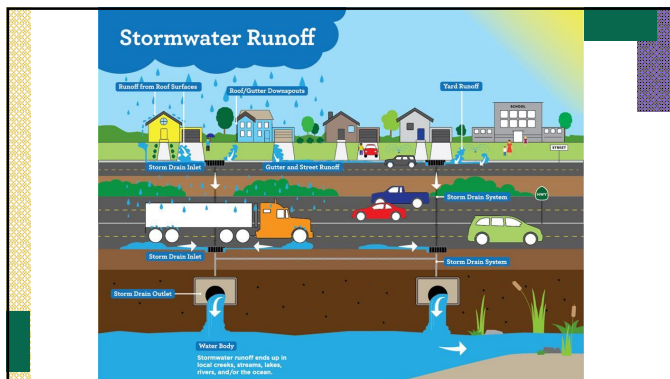

East Lampeter Township
East Lampeter Sewer Authority
Herbert, Rowland & Grubic, Inc.

October 2, 2019

Agenda

- 1) What is Stormwater Runoff and How is it Managed?
- 2) Stormwater Problems affecting East Lampeter Township
- 3) Benefits of a Stormwater Authority
- 4) Stormwater Budget & Funding
- 5) Timeline












Township Stormwater Challenges

- Challenge #1: Polluted streams**
 - The Conestoga River, its tributaries, Stauffer Run, Mill Creek and Pequea Creek are considered impaired
- Challenge #2: Tightening regulations**
 - MS4 Permit requires implementation of a Pollutant Reduction Plan by 2023.
 - 2018 MS4 Permit requires Township to have **funding and staffing necessary to fully comply with increased regulations**, including BMP installation.
 - Growing number of communities fined for non-compliance.
- Challenge #3: Aging infrastructure**
 - Roughly 455,000 LF of pipe & 4,200 inlets
 - Significant portion of pipe and facilities anticipated to reach its useful life in next 10-20 years.
- Challenge #4: Level funding**
 - Historically, the Township has funded stormwater costs through tax revenues which have remained relatively stable despite growing costs

Common Stormwater Problem: Failed Infrastructure

The images show common stormwater infrastructure failures. The first image shows a large pipe completely blocked by debris. The second image shows a large hole in a road surface. The third image shows a large hole in a road surface with orange safety tape around it.

Common Stormwater Problem: Stream Bank Stability



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Common Stormwater Problem: Debris/Pollution



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MS4 (Municipal Separate Storm Sewer Systems)

Chesapeake Bay Agreement:

- ☐ Executed in 1983
- ☐ Signed:
 - Governors - Maryland, Virginia, Pennsylvania
 - Mayor of D.C.
 - Administrator of E.P.A.
- ☐ 2000 set new goals
 - Delaware, New York and West Virginia joined
- ☐ **2023 set goal to reduce 10%**
 - Municipalities required to meet goals



**Federal
Unfunded
Mandate**

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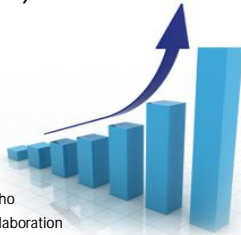
Summary of Work to Date on Stormwater System Evaluation & Visioning

1. Worked with Community Stakeholders from February 2019 through present to:
 - a. Assess Long-term Needs/Costs for Stormwater Program, include regulatory compliance costs
 - b. Develop Draft Budget & Capital Improvement Plan
 - c. Consider Most Equitable Method for Short Term and Long Term Funding Needs
 - d. Develop Public Education and Outreach Strategy
 - e. Obtain Impervious Area (IA) data for each parcel
 - f. Discuss Creditable Stormwater Activities
2. Currently working with Township and Authority on Program Implementation Steps



Stormwater Authorities (SWA)... A Growing Trend

- Over 1,800 stormwater utilities in the U.S.
- First utility formed in 1974
- Continued growth over past 5 decades due to:
 - Increased regulation
 - Significant precipitation events
- Enabling legislation in PA passed in 2013
- Currently there are over 130 municipalities in PA who are at some level of SWA formation or regional collaboration



Financial Benefits of a SWA

Benefit #1: Stormwater fees are more equitable than a tax



- Fairly apportions costs to quantity/quality of stormwater runoff each property contributes to the system
- In roughly 40 municipalities surveyed, an avg residential property owner saves between 50% - 70% by paying a fee vs. through taxes.
- Fees can be collected from tax exempt users
- Credits provided based on level of service received
- Provides an incentive to reduce impervious surface



Financial Benefits of a SWA

Benefit #2: Provides a steady dedicated revenue stream

- Dedicated source of funds
- Funds directed solely to stormwater management
- Need for capital improvements and revenue requirements increase as infrastructure ages
- More predictable and steady stream
- Tax revenue often static as cost of improvements/regulatory requirements increase



SAC Recommendations

1. Expand ELSA to act as an operating authority for stormwater.
2. Further consider regionalization.
3. Consider one-on-one meetings with largest fee payers.
4. Township should ensure regulatory compliance is met in order to avoid fines and provide a better quality of life for residents and property owners.
5. Introduce a comprehensive LOS with education that outlines services provided for the \$1.4M budget.
6. Plan for regulatory compliance and system improvement needs over a 5-10 year planning period.
7. Allocate costs based upon impervious area using a tiered rate structure that does not differentiate between residential and nonresidential.
8. Further explore credits and incentives to develop a cost effective policy.

Proposed Stormwater Budget

- Estimated annual budget (2020-2023)*

Function	Average Cost Years 1-4	% of Budget
Operation & Maintenance	\$110,000	8%
MS4 Compliance	\$650,000	46%
Capital Improvements	\$465,000	33%
Administrative/General	\$175,000	13%
Total Annual Budget	\$1,400,000	100%



Funding SW through Tax vs. Fee

TAX

- Counts towards muni borrowing limits
- Tax exempt users do not help fund SW
- Property's assessed value not linked to SW runoff
- Residential property owners pay more
- Property Owner can not control magnitude of their charge

Fee

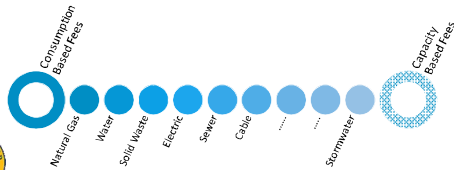
- Uniform and Reasonable
- Can self liquidate debt
- All property owners pay
- Impervious Area is best link to runoff generation
- Incentivizes property owners to partner with muni to meet SW needs of community
- Saves constituents money



Stormwater Utilities are Different

An infrastructure program funding method – stormwater utilities are different

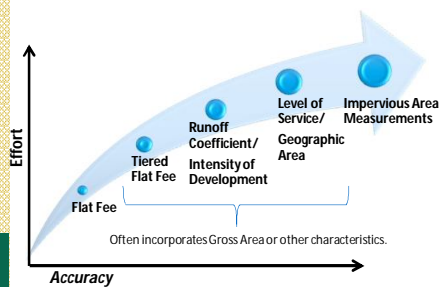
1. Customers used to utility services and pay to receive them on demand.
2. Stormwater ratepayers pay to prevent things they don't want, such as water pollution.



Ref: data from WKU Stormwater Utility Survey 2013



How Are Stormwater Fees Assessed?



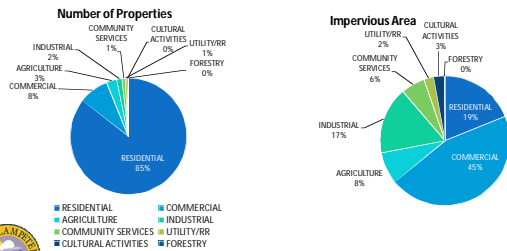
92% of Stormwater Fees based on **Impervious Area**

18% are based upon **Gross Area**

Source: Black & Veatch 2018 Stormwater Utility Survey



Properties and IA in East Lampeter Twp.



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Preliminary Fee Example

DRAFT calculations

- 1 Annual Stormwater Revenue Requirements ~ \$1,400,000 (avg. 4 year budget)
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- 2 Impervious Area Units (Billable Units) 45,483,000 sq ft of IA
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- 3 Stormwater User Fee Rate (\$ / Billable Unit) ~ \$2.50 to \$3.00 /1,000 sq ft IA/month



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Residential Tax Vs. Fee Comparison

Determination of average residential tax payment	
Total Annual Stormwater Revenue Need	\$ 1,400,000
Approx. Total Revenue received per 1 mill Assessment	\$ 1,882,776
Millage = Revenue Need/Total Assessed Property Value	0.7436
Average Residential Property Value in Township	\$ 218,000
Average Annual Residential Tax Payment related to SW	\$ 162.10
Average Monthly Residential Tax Payment related to SW	\$ 13.51
Average Monthly Residential Fee Payment related to SW	\$ 5.60
Savings to the Average Residential Customer	59%



Draft Example – Actual fee magnitude not yet established by ELSA.

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Comparison of Example Tax vs. Fees Charges

	Resident	Commercial - Retail	Commercial- Convenience	Commercial- Restaurant
Assessed Property Value	\$ 218,000	\$ 319,200	\$ 1,441,400	\$ 368,800
Annual Tax Payment related to SW	\$ 162	\$ 237	\$ 1,072	\$ 274
Annual Fee related to SW	\$ 66	\$ 386	\$ 605	\$ 683
Annual Fee with Max Credit of 45%	\$ 36	\$ 212	\$ 332	\$ 376

	Non Profit - Church	Large Commercial	Large Developer
Assessed Property Value	\$ 2,033,100	\$ 38,802,000	\$ 287,521,900
Annual Tax Payment related to SW	\$ -	\$ 28,853	\$ 213,796
Annual Fee related to SW	\$ 1,608	\$ 26,596	\$ 279,523
Annual Fee with Max Credit of 45%	\$ 884	\$ 14,628	\$ 153,738

Actual fee charged to property owner based upon total IA, not property type. Fees above are examples based upon total IA of specific properties.



Examples of Residential Stormwater Fees in PA

Municipality	Monthly Fee /ERU
Borough of West Chester	\$ 18.43
City of Philadelphia	\$ 15.53
Borough of Clarion	\$ 11.90
Lower Paxton Township	\$ 10.67
Township of Ferguson	\$ 10.00
Borough of Dormont	\$ 9.00
City of Allentown	\$ 8.70
City of Chester	\$ 8.25
Mount Lebanon Township	\$ 8.00
City of Bradford	\$ 7.90
City of Meadville	\$ 7.50
Derry Township	\$ 6.50
Lower Allen Township	\$ 6.30
Borough of Greenville	\$ 6.25
Swatara Township	\$ 5.20
City of Lancaster	\$ 4.92
WVSA	\$ 4.80
Hampden Township	\$ 4.41

ERU = Equivalent Residential Unit
IA = Impervious Area
Italicized font reflects proposed rate
Information which may not yet be
adopted.

Potential Magnitude
of ELSA Fee



Potential Timeline

Fall/Winter 2019

