

Does a Stormwater Management Fee Make Sense for My Municipality?

Daniel S. Deiseroth, P.E.

3-24-16



GATEWAY

On Call. On Time. On Target.

A FULL-SERVICE CIVIL ENGINEERING FIRM

PRESENTER BACKGROUND

Daniel S. Deiseroth, P.E.

BSCE Bucknell University

30 years experience

Executive Vice President and Shareholder Gateway Engineers

Registered PA, WVA, OH, NY and Florida

Municipal Engineer Mt. Lebanon, McCandless, Cecil, Slippery Rock Borough, Sringfield Township and Butler Township

Gateway Team Leader Engineering Special Services

GATEWAY

61 year old firm; 150 persons Full Service including Surveying, Environmental, Traffic, Civil, Landscape Architecture, Structural and Geotechnical

Offices in Pittsburgh, Southpointe and Butler

Representing over 30 local governments and

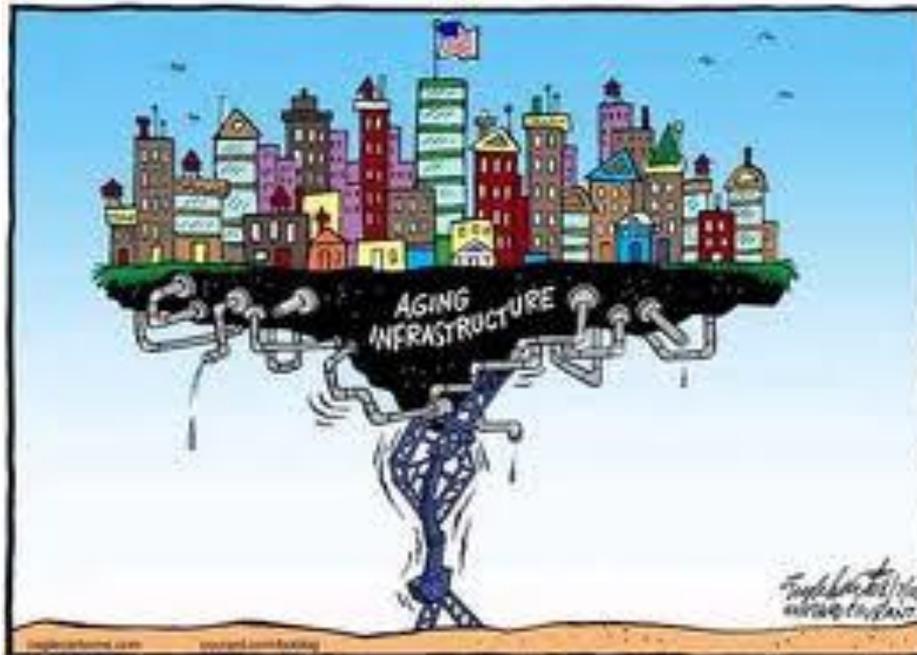
Authorities in Southwestern PA



A FULL-SERVICE CIVIL ENGINEERING FIRM

The state of the Infrastructure

Aging infrastructure is all around us. The forgotten stepchild is the storm sewer system.



Today's Agenda

- DIMS Questions
- Key Issues Needing Improvement
- Existing Program Description
- The Plan to Solve the Problems
- Stormwater Funding Overview
- Stormwater User Fees
- Steps and Cost
- Key Questions
- Case Studies – Mt. Lebanon & Whitehall
- Projects completed with Fund
- Questions



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DIMS Questions

(Does it make Sense)

- What problems, issues and needs do we face that we need to solve?
- What do we spend and do now toward solving them?
- What should we be doing differently and what might it cost?
- How would a stormwater user fee work to pay for it?
- What are the next steps?

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Key Issues Needing Improvement

- Flooding – real, growing, unresolved
 - Be proactive
 - Add sewers where non existent
 - Alleviate pressure on sanitary system
 - Reduce complaint backlog
- Infrastructure – aging, blocked, failing
- Quality of life – service values and property values
- Sustainability
 - Green approaches to stormwater management
 - Costly environmental compliance MS-4



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Key Issues Needing Improvement

- Public Works
 - Pay for Labor
 - Pay for Equipment
 - Pay for mapping
- TMDL
 - Study completion
 - Implementation of pilot projects
 - Long term monitoring

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Current Program

FUNCTION	Existing (\$1,000)
Administration	\$ -
Engr. And Planning	\$ 30.0
Operations	\$ 216.8
Reg. & Enforcement	\$ 20.1
Capital Const.	\$ -
SW Quality	\$ -
TOTALS	\$ 266.9

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Preliminary Program Plan

FUNCTION	Existing	YR 1	YR 2	YR 3	YR 4	YR 5
Administration	\$ -	\$ 76.0	\$ 79.8	\$ 83.8	\$ 88.0	\$ 92.4
Engr. And Planning	\$ 30.0	\$ 57.0	\$ 59.9	\$ 62.8	\$ 66.0	\$ 62.6
Operations	\$ 216.8	\$ 560.2	\$ 588.2	\$ 617.6	\$ 648.5	\$ 680.9
Reg. & Enforcement	\$ 20.1	\$ 42.1	\$ 44.2	\$ 46.4	\$ 48.7	\$ 51.1
Capital Const.	\$ -	\$ 358.5	\$ 336.0	\$ 529.3	\$ 513.3	\$ 300.0
SW Quality	\$ -	\$ 115.0	\$ 120.8	\$ 126.8	\$ 133.1	\$ 139.8
TOTALS	\$ 267	\$ 1,209	\$ 1,229	\$ 1,467	\$ 1,498	\$ 1,327

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General Legal Categories of Municipal Revenue

- ✓ Taxes
 - Primary revenue generator
 - No mandatory association with specific activities
- ✓ Exactions
 - Approval or privilege to us
 - Franchise fee
- ✓ Assessments
 - Direct and special benefit
 - Often one time capital construction
- ✓ Service Charge
 - Tied to objective or program
 - Fee level based on provision of goods & services



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Building Blocks for Funding

Resource	User Fee	Volunteers	Fines
Impact Fee	Bonding	General Fund	Tax Assessment
Shared Costs	Inspection Fees	Grants	Special Sales Tax

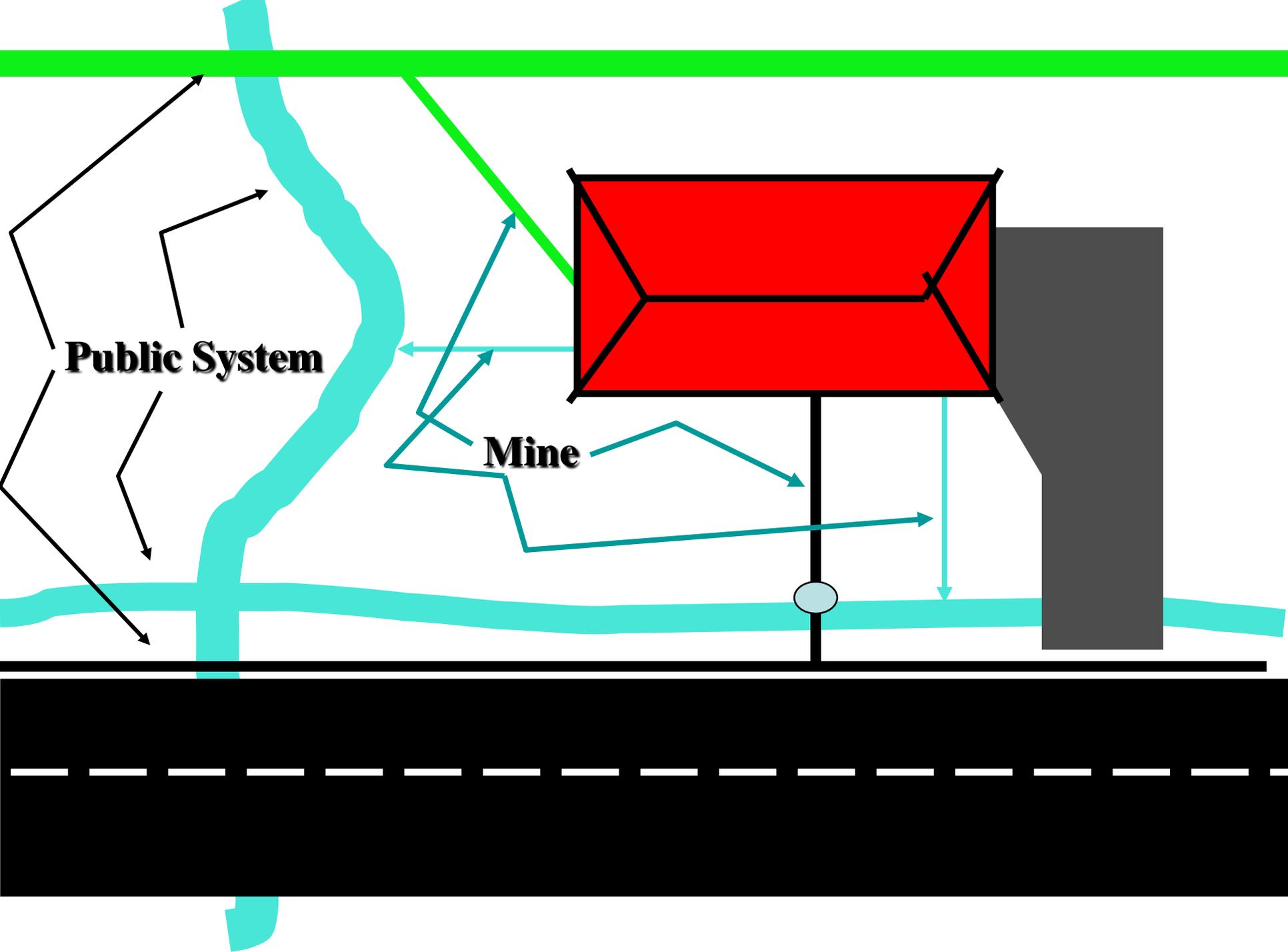
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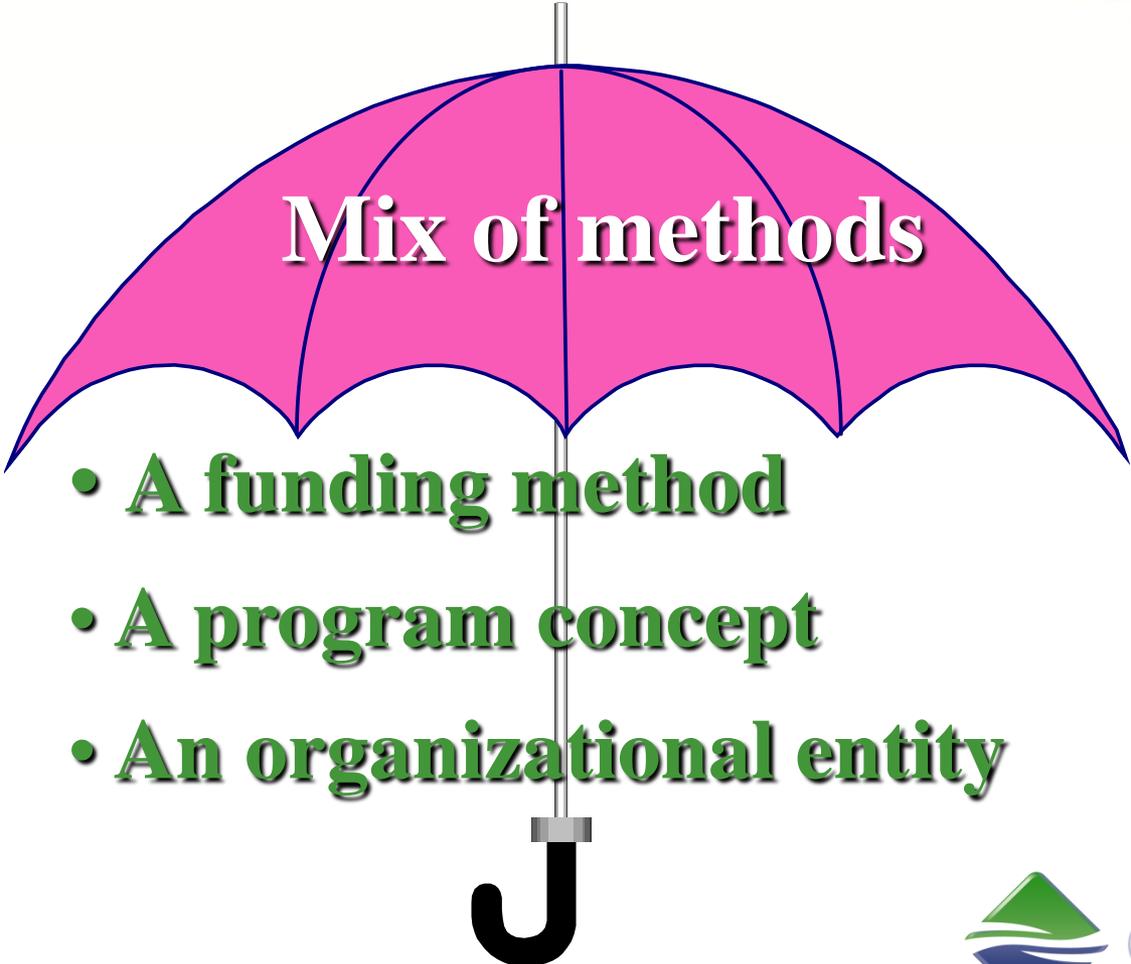


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What is a Stormwater Utility?



Mix of methods

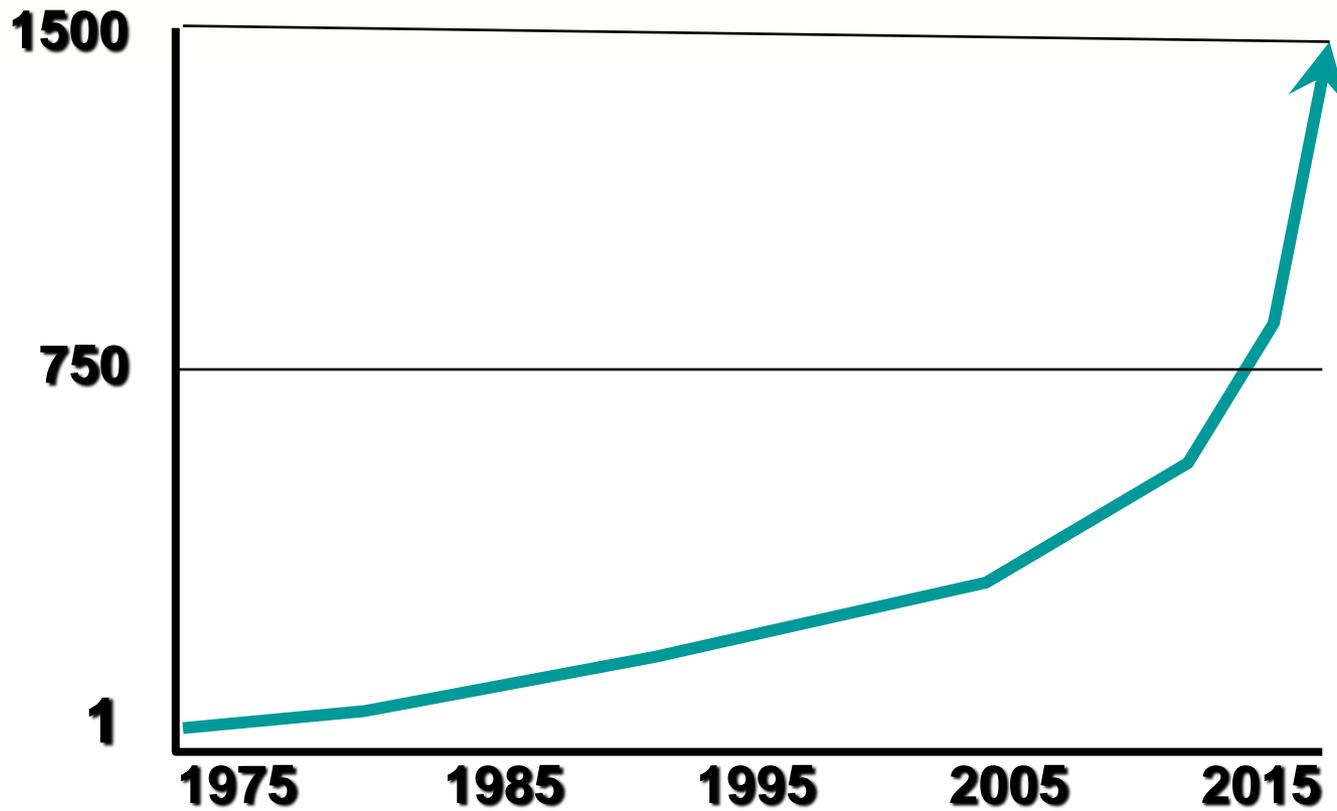
- **A funding method**
- **A program concept**
- **An organizational entity**



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Growth of Stormwater Utilities



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Advantages of a Stormwater Utility to Support Programs

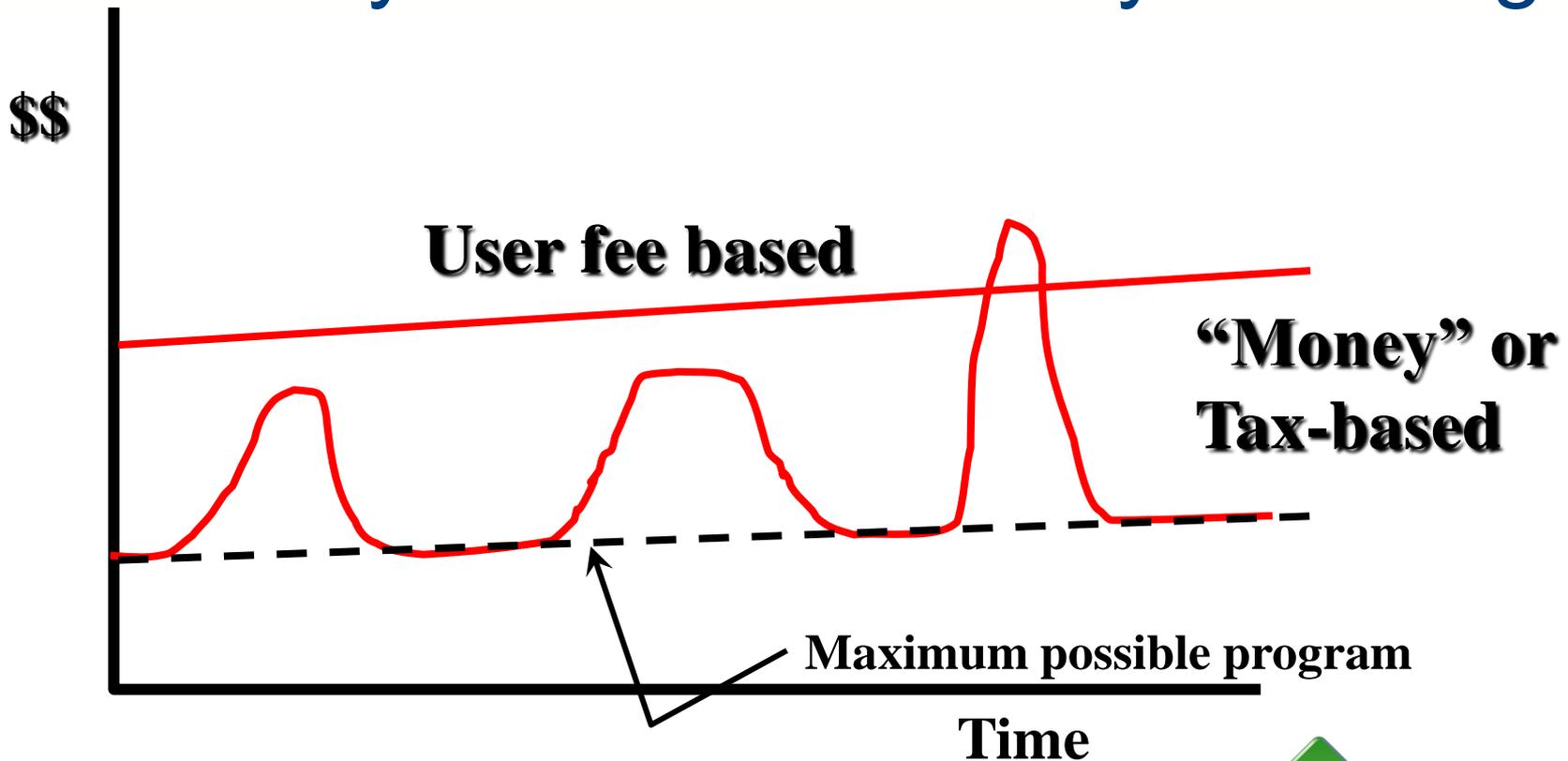
- **Stable**
- **Adequate**
- **Flexible**
- **Equitable**



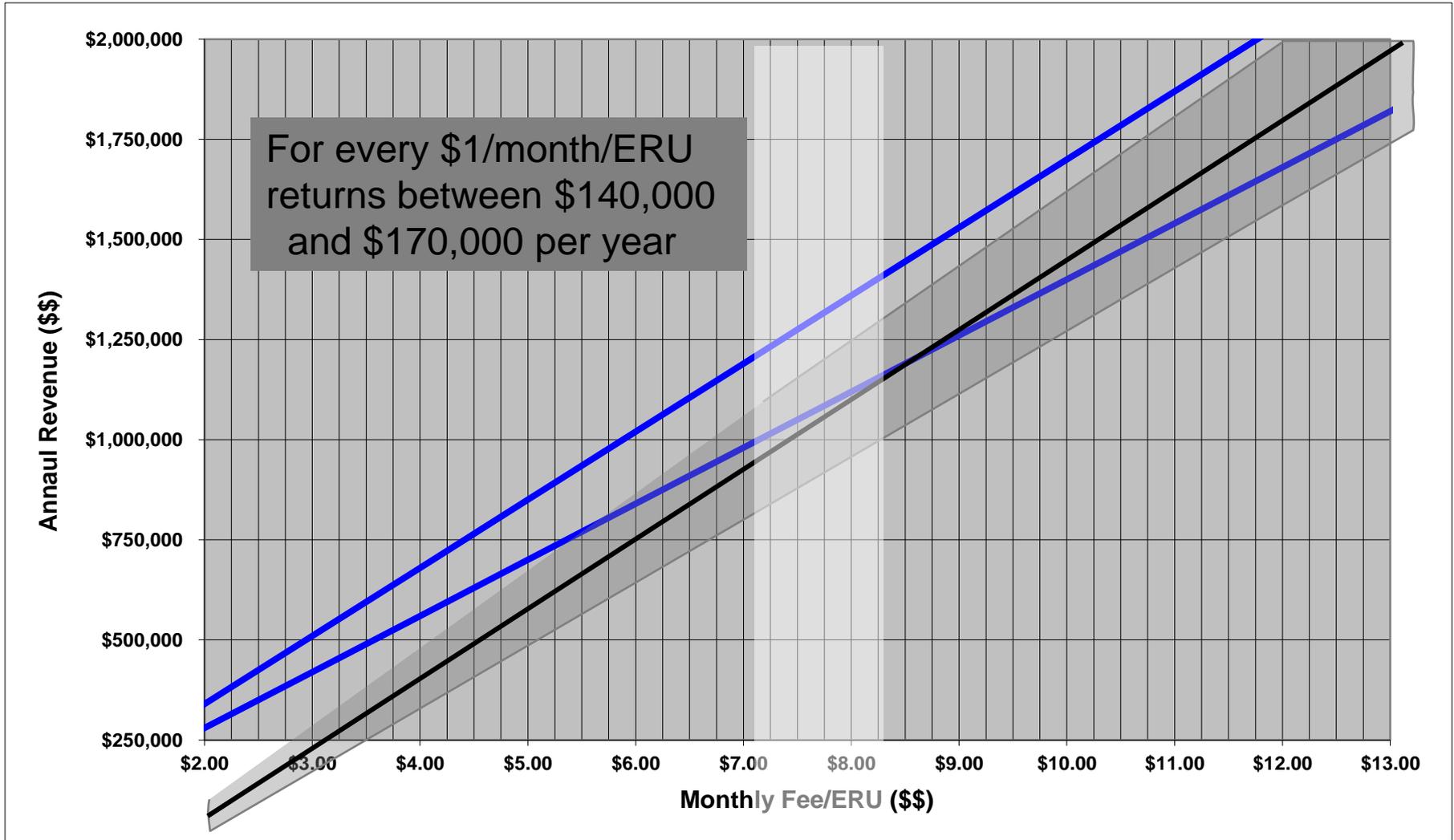
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Stable Utility vs. Tax or “Money” Funding



Adequate: Revenue Estimates



Flexible

- Primary source for the whole program
- Other fees to enhance equity
- Credits to encourage good performance
- Can take into account environmental costs

Equitable

- Everyone is treated the same
- The fee is what is necessary to fund the program.
- Credits are given to those who truly help the state of stormwater

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What might the next steps be?

Anticipate Legal Challenges

- Fair and reasonable
- Not illegally discriminatory or confiscatory
- Costs substantially related to provision of facilities and services
- Individual rate based loosely on demand or “use” of service
- Legal by charter or legislation
- Proper procedures followed and appropriate governance

Enabling Legislation Act 68 of 2013

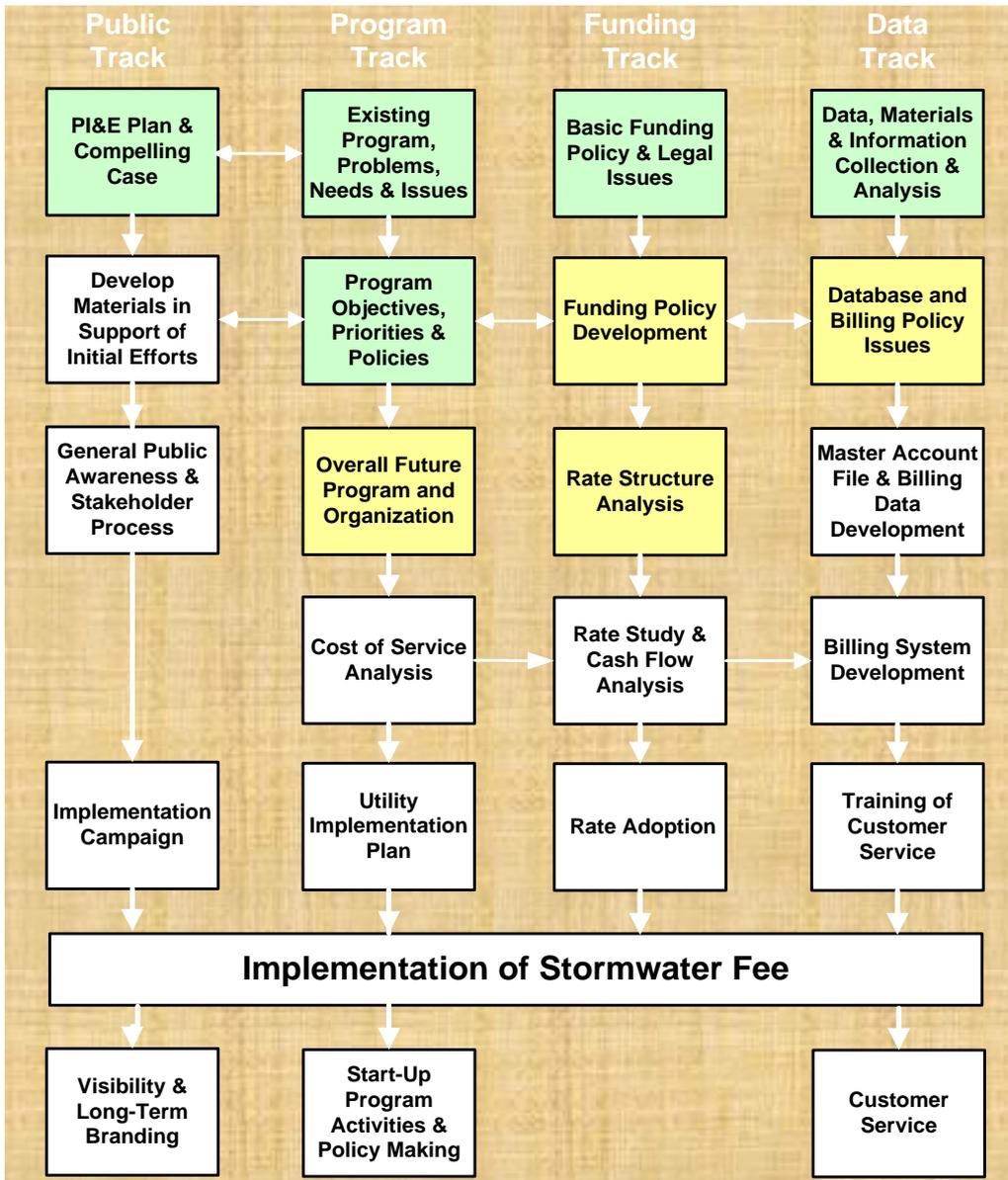
- Act 68 authorizes new or existing municipal Authorities to take on stormwater planning, Management and implementation effective September 7, 2013
- Authorities can fund operations, complete construction and maintenance of stormwater systems.
- Multi-municipalities can create an authority and fund on a watershed basis and charge a user fee.
- New House Bills 1325, 1394 and 1661 would enable all Boroughs and Townships to create a stormwater fee



A question of “due diligence”

Establishing a successful stormwater utility requires that you pay attention to five key areas of due diligence:

1. Governance and inter-municipal consensus
2. Program concept and the compelling case
3. Public and political education and support
4. Financial policies and documents
5. Database development & accuracy and customer service



Green – Done
Yellow – Started
 White – Still to do

Remember that due diligence is the key to short and long-term success

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Some key questions...

1. What will this cost?
 - About one to two month's revenue depending on billing
2. How long will it take?
 - About ten months again...
3. How will you keep the public informed?
 - Meetings, website, other publications
4. Do we get to vote again or is this it?
 - Yes you get to vote on the rate, rate ordinance and it will be submitted in advance for comment

Case Study

Municipality of Mt. Lebanon



Basic Mt. Lebanon Information

- 6.05 sq mi
 - 3,891 acres
- 33,000 people
 - 5,460 / sq mi
- 12,000 parcels
 - 10,800 SFR



2011 Stormwater Program (Pre-Utility)

FUNCTION	Existing (\$1,000)
Administration	\$ -
Engr. And Planning	\$ 30.0
Operations	\$ 216.8
Reg. & Enforcement	\$ 20.1
Capital Const.	\$ -
SW Quality	\$ -
TOTALS	\$ 266.9



Post Program Plan

Mt Lebanon, PA							
Stormwater Cost of Service							
Cost of Service Analysis; Fully-Burdened Personnel Costs, Summary by Cost Subcategory by Year							
Major Cost Category	Existing	First 4 months	Year 1	Year 2	Year 3	Year 4	Year 5
<i>Cost Subcategory</i>							
Administration							
<i>Billing, Finance and Customer Services</i>			\$ 50,000.00	\$ 51,750.00	\$ 53,561.25	\$ 55,435.89	\$ 57,376.15
<i>Legal Support Services</i>			\$ 5,000.00	\$ 2,500.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00
<i>Public Education Programs - General</i>			\$ 1,000.00	\$ 1,035.00	\$ 1,071.23	\$ 1,108.72	\$ 1,147.52
Subtotal:	\$ -		\$ 56,000.00	\$ 55,285.00	\$ 55,632.48	\$ 57,544.61	\$ 59,523.67
Engineering and Master Planning							
<i>System/project Design Engineering</i>			\$ 140,000.00				
<i>GIS, Database, and Mapping</i>			\$ 2,000.00	\$ 4,570.00	\$ 2,142.45	\$ 5,217.44	\$ 2,295.05
Subtotal:	\$ -		\$ 142,000.00	\$ 4,570.00	\$ 2,142.45	\$ 5,217.44	\$ 2,295.05
Operations							
<i>Storm Sewer and Culvert Maintenance</i>	\$ 108,180.00	\$ 108,180.00	\$ 111,966.30	\$ 115,885.12	\$ 119,941.10	\$ 124,139.04	\$ 128,483.90
<i>Remedial Repair and Replacement</i>			\$ 150,000.00	\$ 155,250.00	\$ 160,683.75	\$ 166,307.68	\$ 172,128.45
<i>Curb and Gutter Maintenance</i>	\$ 470,630.00		\$ 487,102.05	\$ 504,150.62	\$ 521,795.89	\$ 540,058.75	\$ 558,960.81
<i>Video testing of storm sewers</i>			\$ 18,000.00	\$ 18,630.00	\$ 19,282.05	\$ 19,956.92	\$ 20,655.41
<i>Emergency Repairs</i>			\$ 40,000.00	\$ 41,400.00	\$ 42,849.00	\$ 44,348.72	\$ 45,900.92
<i>materials</i>	\$ 6,500.00	\$ 6,500.00	\$ 6,727.50	\$ 6,962.96	\$ 7,206.67	\$ 7,458.90	\$ 7,719.96
Subtotal:	\$ 585,310.00	\$ 114,680.00	\$ 813,795.85	\$ 842,278.70	\$ 871,758.46	\$ 902,270.01	\$ 933,849.46
Capital Improvements							
<i>Capital Improvement Project Management</i>		\$ 130,411.82	\$ 208,500.00	\$ 386,000.00	\$ 370,000.00	\$ 463,250.00	\$ 400,000.00
Subtotal:	\$ -	\$ 130,411.82	\$ 208,500.00	\$ 386,000.00	\$ 370,000.00	\$ 463,250.00	\$ 400,000.00
Stormwater Quality							
<i>NPDES Administration and Reporting</i>	\$ 5,000.00	\$140,000.00	\$ 5,000.00	\$ 5,150.00	\$ 5,304.50	\$ 5,463.64	\$ 5,627.54
<i>Street Sweeping</i>				\$ 28,000.00	\$ 28,840.00	\$ 29,705.20	\$ 30,596.36
Subtotal:	\$ 5,000.00	\$140,000.00	\$ 5,000.00	\$ 33,150.00	\$ 34,144.50	\$ 35,168.84	\$ 36,223.90
EXPENSE TOTAL:	\$ 590,310.00	\$ 385,091.82	\$ 1,225,295.85	\$ 1,321,283.70	\$ 1,333,677.88	\$ 1,463,450.89	\$ 1,431,892.07

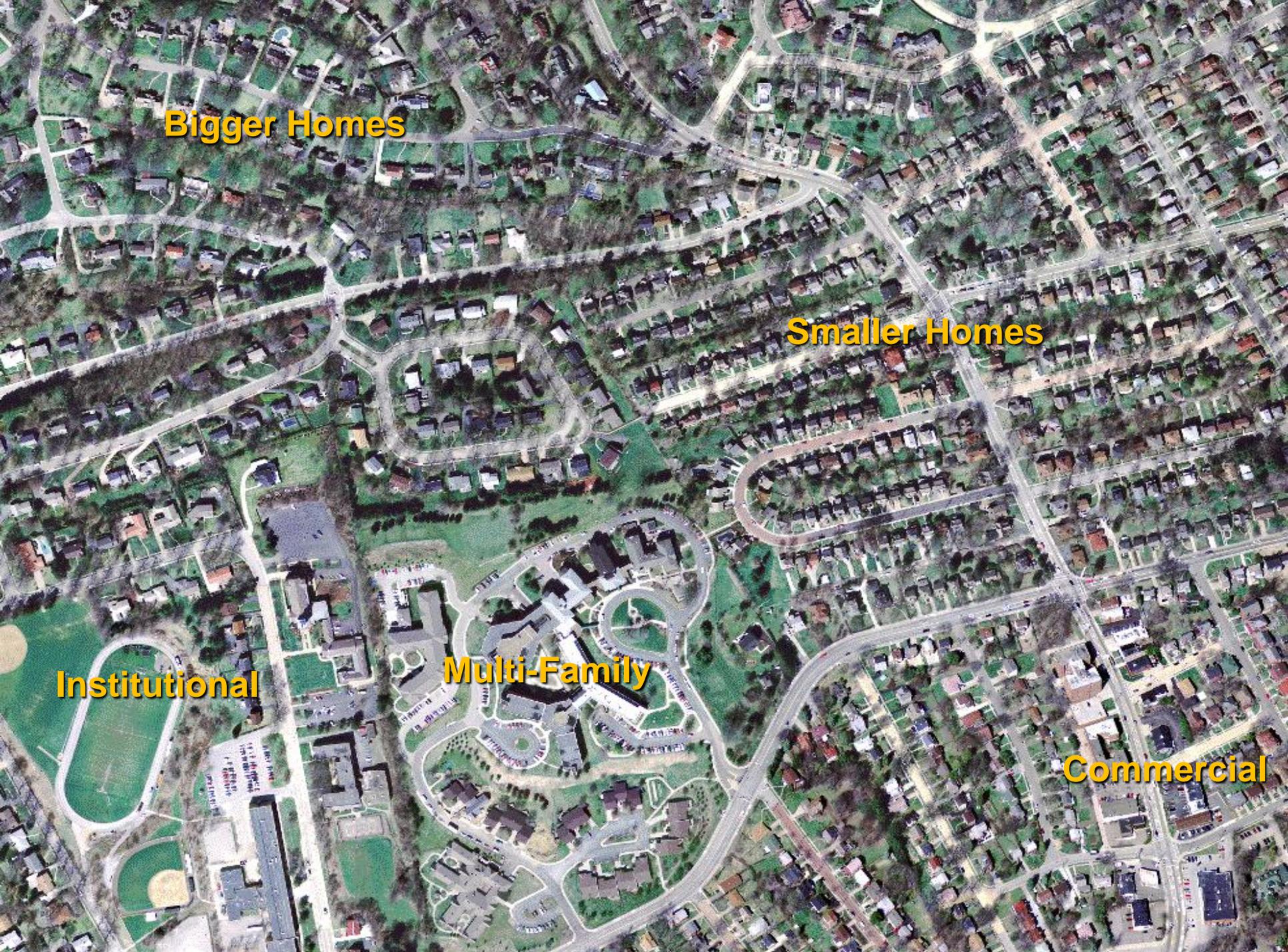
Bigger Homes

Smaller Homes

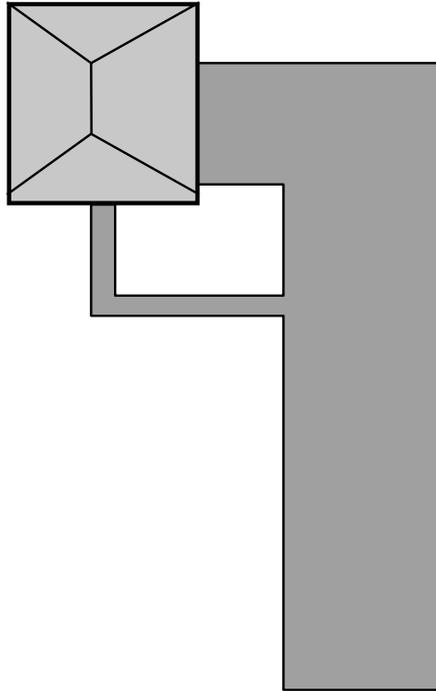
Institutional

Multi-Family

Commercial

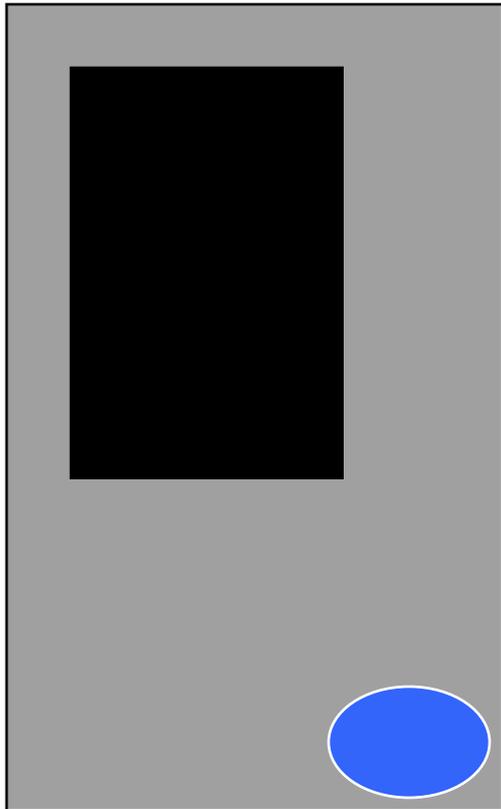


Equitable: How a Fee is Calculated

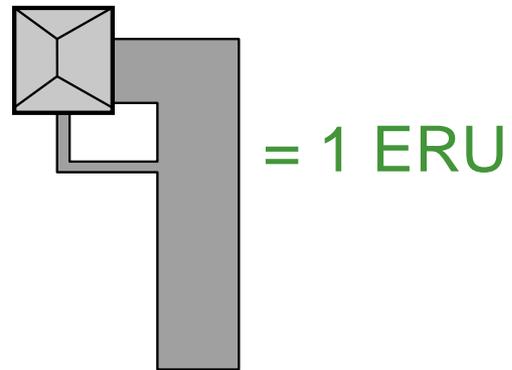


Equals 1.0 ERU
Mt. Lebanon is about
2,400 SF, 150 properties
measured, median
impervious surface used

How a Fee is Calculated

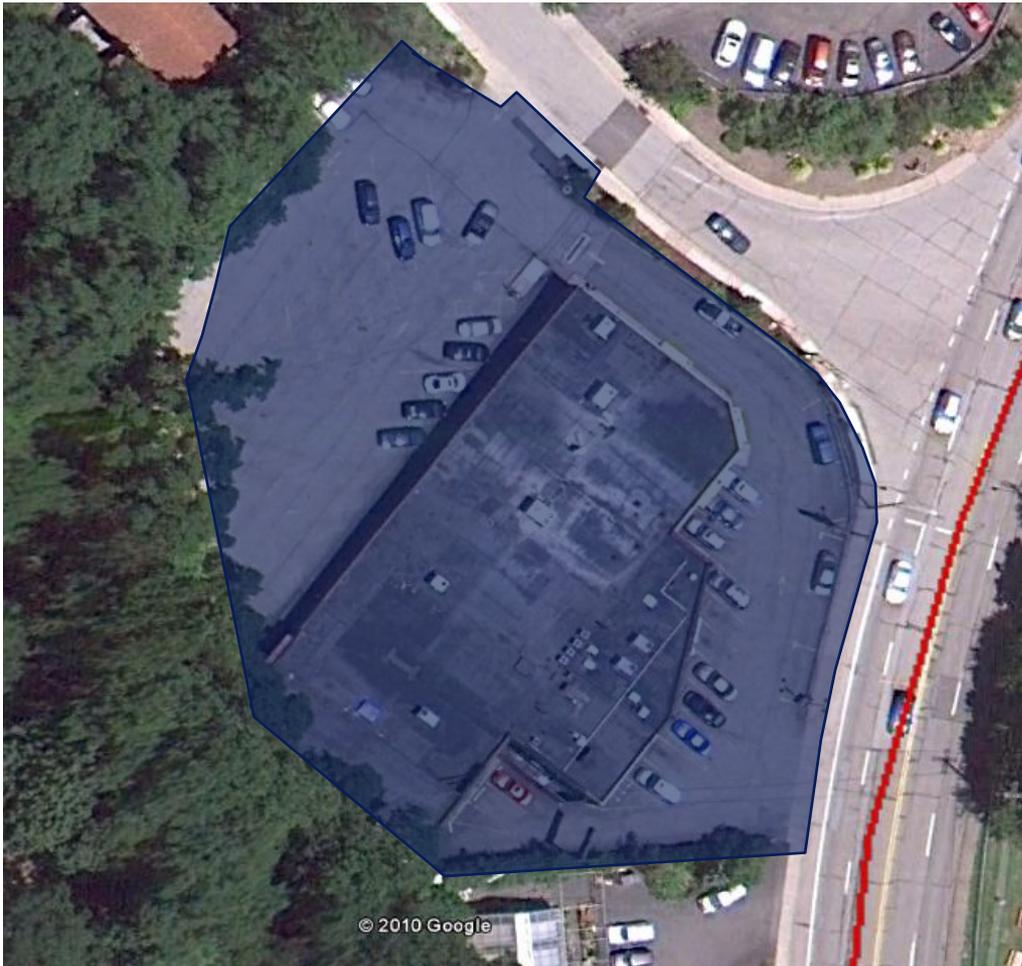


= 40 ERUs less credit



Fee is \$8.00 / ERU / mo
These small businesses pay \$16 / mo





For a \$8.00 / ERU / mo charge
36,000 sf impervious area

13 ERUs
\$104.00 / mo

Lease Information
20,000 sf @ \$16 / sf / yr
\$320,000 / yr
fee = 0.35%



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Credits

- If you spend private resources that materially reduce your site's impact on the public drainage system, flooding or water pollution, you may receive a credit.
- If you spend private resources that materially reduce the City's cost of the stormwater program, you may receive a credit.
- Credit manual created

Credits

- One-time Rain Barrel Credit
- Peak Flow Attenuation Credit
 - Designed for 25-year storm
 - Up to 50% reduction in fee per year



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Properly sized Rain barrel



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Decisions

- Do you bill for roads or not?
- Do you bill yourself as a municipality?
- What is the minimum amount of Impervious area you will charge for?
- How do you deal with vacant lots?
- Where do you cut off trying to measure impervious?
- How much will you provide in the way of credit and how will the credit be determined?



Lebo Fee Facts

- Started 1-1-11 first bill issued 9-1-11
- Billed by 3rd Party Billing Company at 2% of fee
- After determining ERU's all non-residential customers were individually Measured
- Meeting with 25 largest Rate Payers
- Public hearing on the ordinance
- Staff answered questions with FAQ upon implementation



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Lebo Fee Facts

- Annual Capital Report Prepared
- Annual summary document of where money is spent is published on website
- Data base is updated each time CFO is implemented
- Bond issue taken for larger projects and paid back by the fee

Current State of Mt. Lebanon Operation

- \$4,240,000 in improvements since 2011
- Two challenges to the fund and only on ERU calculation
- \$1.1 Million in backlogged projects
- Useful tool in addressing resident issues; Commissions have a mechanism to address a problem.
- Using for the Start of a TMDL Plan



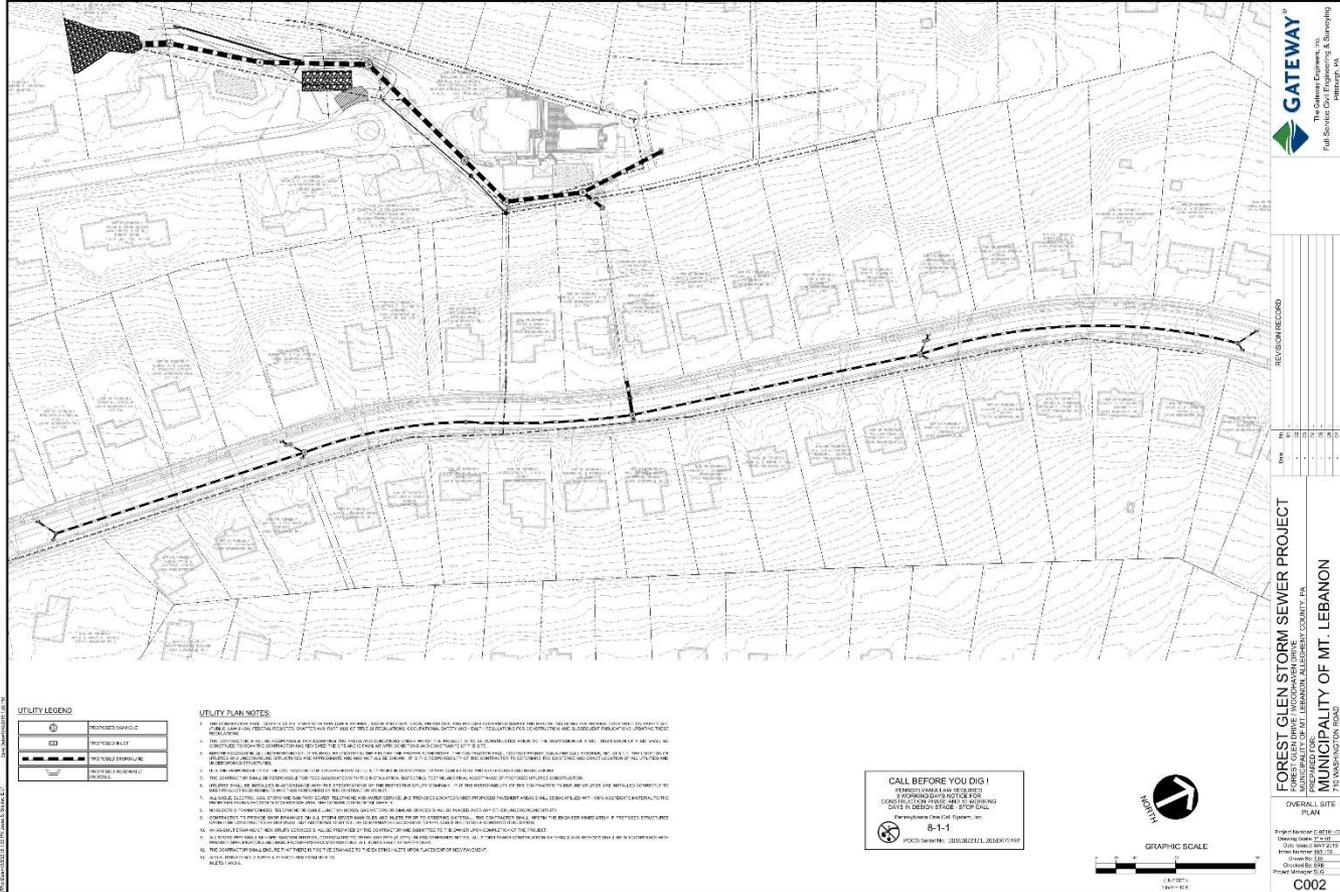
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Current State of Mt. Lebanon Operation

- The fund is moving from flooding issues which have been significantly addressed to proactive system maintenance, expansion of stormwater infrastructure and MS-4 Compliance.

Forest Glen Project



UTILITY LEGEND

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Forest Glenn Project

- 80 acre watershed
- Multiple flooding Events
- Infrastructure 1920's and 1930's
- \$800,000 from stormwater fund will create a more modern infrastructure to alleviate flooding
- Under construction presently

Forest Glen Project



Altoona Storm and Sanitary

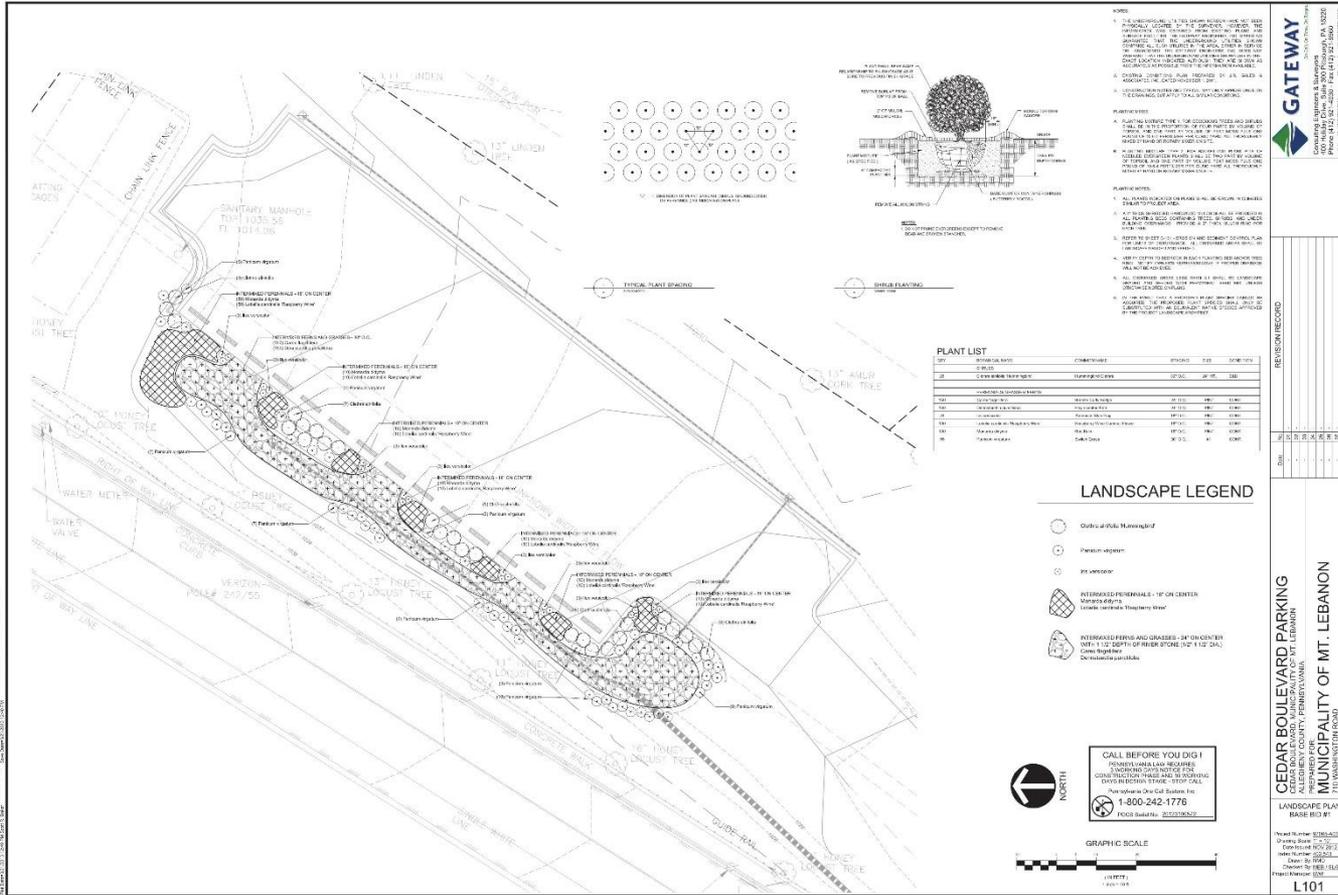
- 50 acre watershed
- Multiple flooding Events
- Infrastructure 1920's and 1930's
- Sanitary sewers under homes
- Lack of Storm sewer Capacity
- \$2,000,0000 project from sanitary and stormwater fund has created a more modern infrastructure to alleviate flooding
- Completed in 2015



Altoona Storm and Sanitary



Cedar Blvd Rain Garden



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 PITTSBURGH, PENNSYLVANIA 15202
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 FAX: 412.324.1778
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REVISION RECORD

NO.	DATE	DESCRIPTION
1	10/15/2022	ISSUED FOR PERMITS
2	10/15/2022	ISSUED FOR PERMITS
3	10/15/2022	ISSUED FOR PERMITS
4	10/15/2022	ISSUED FOR PERMITS
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LANDSCAPE PLAN
 BASE BID #:
 Project Number: 220210022
 Drawing Date: 10/15/2022
 Scale: AS SHOWN
 Drawn by: GSK
 Checked by: GSK
 Project Number: 220210022
L101

Cedar Boulevard Rain Garden

- Additional Parking for Athletic Fields create in 2013
- Rain Garden included to control stormwater and treat runoff. Paid for from Stormwater fee fund.
- Lesson Learned the rain garden planting needs to be conducive to the environment in which it is located. Replanting occurred in 2015.

Cedar Boulevard Rain Garden

Pre-condition



Post Condition



Whitehall

- In 2014, Gateway consulted with the Borough of Whitehall in Allegheny County to set up a fund similar to Mt. Lebanon. They are beginning to implement projects in 2016.
- Whitehall work began Summer of 2014 implemented for first bill in January of 2015

Whitehall

Residential ERU's 5,159

Non-residential ERU's 2,252

Total ERU's 7,411

Average Yearly Cost of Program \$787,432

Approximate revenue at \$96 per ERU 95% collection

\$15K for billing \$660,883

Lessons Learned

- Have someone on your team who knows how to do the fee. You only have one chance to do it right.
- Have good data and then check it over and over again
- Have shovel ready projects to go the day you send out the first bill or shortly thereafter
- Be ready to answer questions when the first bill goes out and send an explanation with it.



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Lessons Learned

- Continue to update and monitor your list of projects in anticipation of each year's work
- Consider a sunset provision in the ordinance if people are concerned this will never go away and only cost more.

Summary

- Flooding lack of new infrastructure and maintenance existing infrastructure are primary reasons to create a fund.
- Water quality and MS-4 compliance creates future unfunded mandates on Municipalities which can be addressed with a stormwater fund.

Questions?
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