Franklin County / City of Frankfort Stormwater Program

February 3, 2014

Agenda

1. What is a Stormwater Utility
2. Why Does Frankfort & Franklin County Need Stormwater Funding?
3. Municipal Separate Storm Sewer System (MS4) – KDOW Water Quality Permit
4. City of Frankfort Summary & Examples
5. Franklin County Summary & Examples
6. Rate Recommendations

7. Path Forward

- Schedule - Handout
- Public Involvement, Education & Outreach
- Legal / Organization Development
- Billing Policies / Billing Database
- Incentives Program
- Billing System Development
- Customer Service training
- Send out Bills

What is a Stormwater Utility?

Definition

A Stormwater Utility is a legally defensible Financing Option based on a comprehensive Financing Option Analysis that establishes a dedicated funding source with proceeds deposited into an Enterprise Fund that by law can only be spent on stormwater related projects such as water quality (MS4), drainage, flooding problems and certain CSO related projects.

Mission Statement

"The City of Frankfort and Franklin County Stormwater Utility Program strives to enhance the quality of life in the City of Frankfort and Franklin County by utilizing a watershed approach to meet and maintain EPA Water Quality permit requirements and responsibly address Drainage and Floodplain Management within available resources"

Why Does Frankfort and Franklin County Need Stormwater Funding?

1. **To address the lack of dedicated funding for stormwater activities**
2. **To address drainage and flooding problems**
3. **To address Federal/State unfunded mandates**
   - **USEPA NPDES Phase II permit regulations**
   - **Failure to meet ever increasing regulations could result in large fines and/or criminal charges**
   - **CSO consent decree regulations will increase flooding problems**
4. **To establish dedicated funding for stormwater program Capital Improvements Projects (CIP)**

City Drainage Problems

Hudson

City of Frankfort Stormwater Program
Capital Projects List

Project	Cost
Indian Hills	$ 250,000
Hiawatha	$150,000
Benson Avenue	$500,000
Tierra Linda I&I Phase 1	$350,000
Tierra Linda Pipe Replacement	$50,000
Collins Lane I&I	$950,000
Collins Lane Extended	$150,000
Brookhaven	$300,000
Rolling Acres Phase 1	$475,000
Ridgeview Phase I&I	$350,000
Grandview	$200,000
Rolling Acres Phase 2	$450,000
Myrtle Avenue I&I	$500,000
Juniper Hills I&I	$50,000
St. Clair Storm /Sewer Separation	$1,000,000
TOTAL	**$5,725,000**

County Drainage Problems

Mill Road

Franklin County Stormwater Program
Capital Projects List

Project	Cost
• Country Lane / Breckinridge Blvd.	$100,000
• Heritage Subdivision	$600,000
• I-64 Regional Detention Basin	$260,000
• US 421 Regional Detention Basin	$520,000
• Two Creeks	$400,000
• Meadowbrook	$30,000
• Governors Place	$50,000
• CoolBrook Subdivision	$50,000
• Evergreen Estates	$50,000
• Willowcrest	$50,000
• Matching Grant Fund pool	$100,000
• Upper Cedar Run Branch Watershed	$50,000
• Duckers Lake Dam	$200,000
• Twilight Trail	$50,000
TOTAL	**$2,510,000**

Municipal Separate Storm Sewer System (MS4)
Kentucky Division of Water Stormwater Quality Permit

1. Public Education & Outreach
2. Public Participation/Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post Construction Runoff Control
6. Pollution Prevention/Good Housekeeping

MS4 PERMIT IS:

- A plan for community water quality
- A plan for water education & Involvement
- A plan to map & maintain the storm system
- A plan for erosion from construction
- A plan for Green Infrastructure Development
- A plan to prevent pollution throughout the community through source control.

Compliance is a Serious Matter

Non-compliance:

- **Administrative Order Penalty - up to $125,000**
- **Civil Violations - up to $25,000 per violation per day**
- **Jail terms for negligent or knowing violations, false statements, or knowingly endangering a person**

What Are The Rate / Revenue Assumptions?

1. Basis is Impervious Area and Contribution to Runoff

2. Based on a Level of Service developed in conjunction with staff

3. Legally Defensible

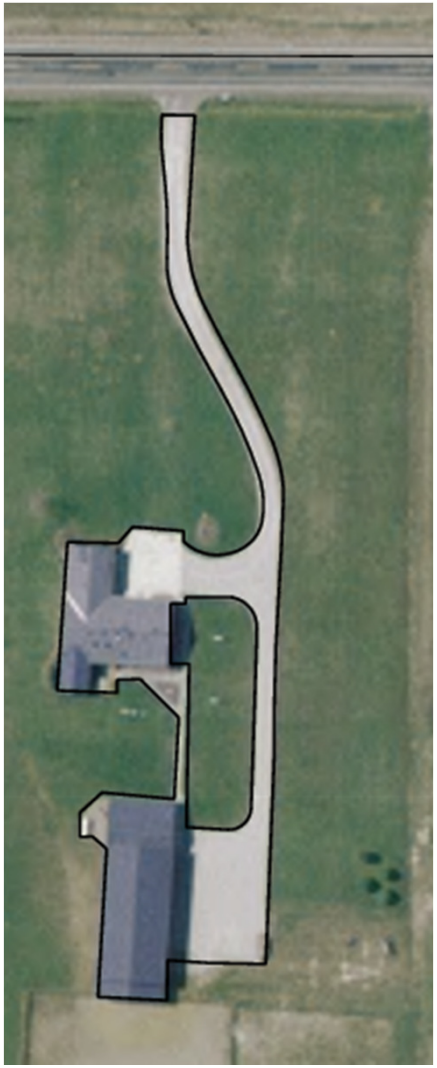
4. An Equivalent Residential Unit (ERU) will be created from a sample of single family residential properties

5. Will be based on a random sample of residential properties

6. Non-residential properties measured for impervious area (hard surface, Roof, Parking Lot, Driveway) –

7. Example: 10,000 sq. feet of impervious surface area divided by 2,500 = 4 ERUs

Residential Example



- **Residential**
- **1 Equivalent Residential Unit (ERU) flat rate billing**

Non-Residential Example

Non-residential

- Industrial
- Commercial
- Churches
- Schools
- Medical Facilities
- Government

City of Frankfort Plan

City Storm Water Plan	Scenario 1	Scenario 2	Recommendation	Managed By	Split
Rate Plan	$4.00	$5.00	$5.60		
NPDES Storm Water Permit & Water Quality	$165,750	$165,750	$165,750	Co-Permittee	75%/25%
Drainage / Flood Protection & Maintenance	$165,750	$165,750	$309,750	City/County	75%/25%
Debt Service / Capital	$710,388	$1,016,388	$1,055,531	City/County	75%/25%
Billing System Costs	$186,469	$186,469	186,469	City/County	75%/25%
Total Annual Program Costs	$1,228,356	$1,534,356	$1,717,500		

Program Funding Using Taxes (City)

	Current	Proposed
Occupational Tax Rate	1.95%	2.08%
Tax Revenue per year	$17.8M	$19.0M

	Current	Proposed
Property Tax Rate / $100 Assess	20.9 / $100	29.0 / $100
Tax Revenue per year	$3.1 M	$4.3 M

City of Frankfort Impervious Area Examples

Kentucky State University (city)

Address: 400 E Main St. Frankfort, KY

Impervious Area Measurement:

1,781,641.19 sq. ft.

1,781,641.19 ÷ 3,800 (ERU) = 469

Rate = **$4.00 per month per ERU**

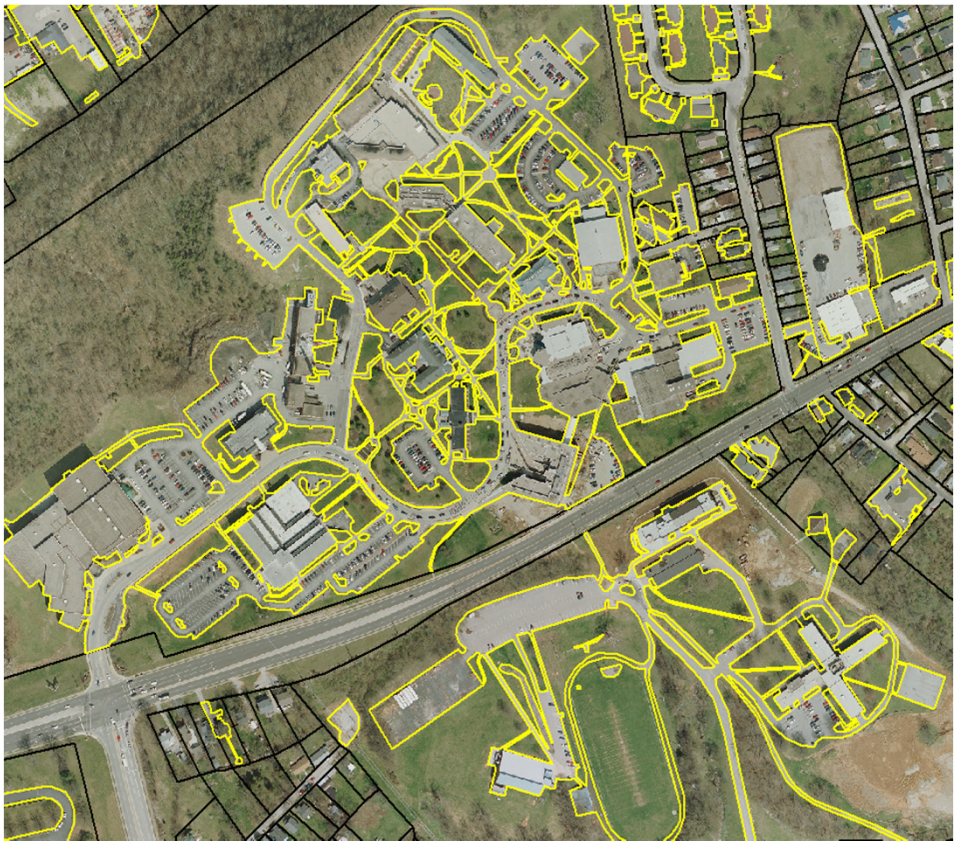
Charge = $4.00 x 469 = **$1,876.00 monthly**

$22,512.00 annually

Rate = **$5.00 per month per ERU**

Charge = $5.00 x 469 = **$2,345.00 monthly**

$28,140.00 annually



Walmart (city)

Address: 301 Leornardwood Dr.
Frankfort, KY

Impervious Area Measurement:

715,949 sq. ft.

715,949 ÷ 3,800 (ERU) = 188

Rate = **$4.00** per month per ERU

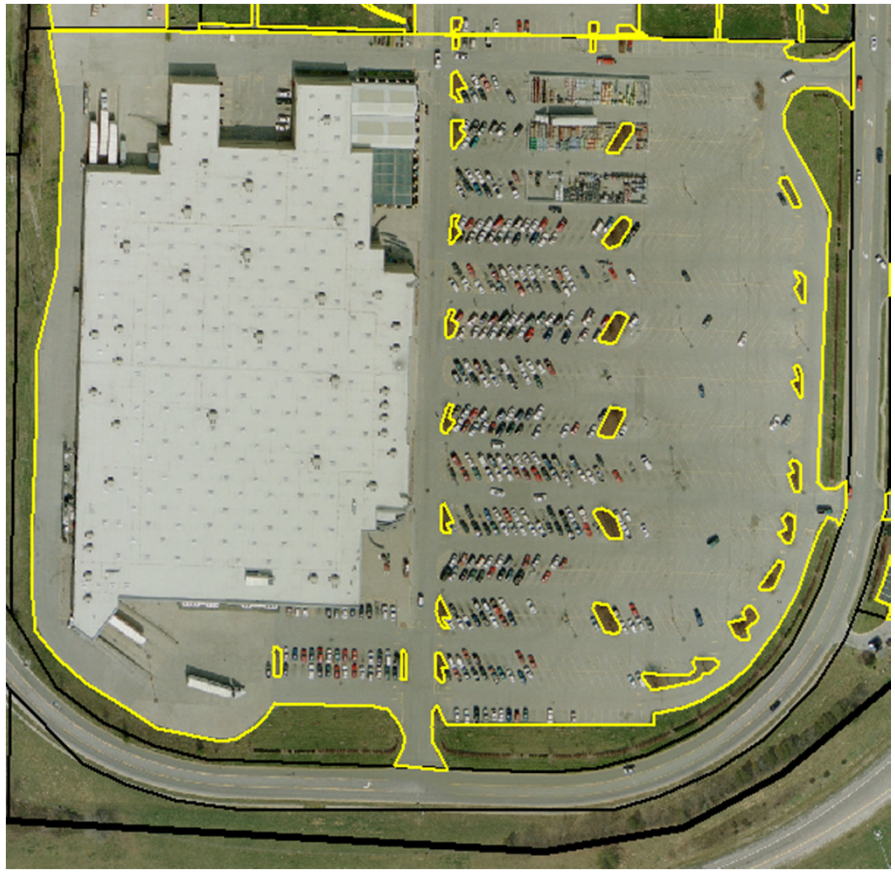
Charge = $4.00 x 188 = **$752.00 monthly**

$9,024.00 annually

Rate = **$5.00** per month per ERU

Charge = $5.00 x 188 = **$948.00 monthly**

$11,280.00 annually



Hope Lutheran Church (city)

Address: 1251 Louisville Rd.
Frankfort, KY

Impervious Area Measurement:

35,309 sq. ft.

35,309 ÷ 3,800 (ERU) = 9

Rate = **$4.00** per month per ERU

Charge = $4.00 x 9 = **$36.00 monthly**

$432.00 annually

Rate = **$5.00** per month per ERU

Charge = $5.00 x 9 = **$45.00 monthly**

$540.00 annually

Hospital Corporation of America (city)

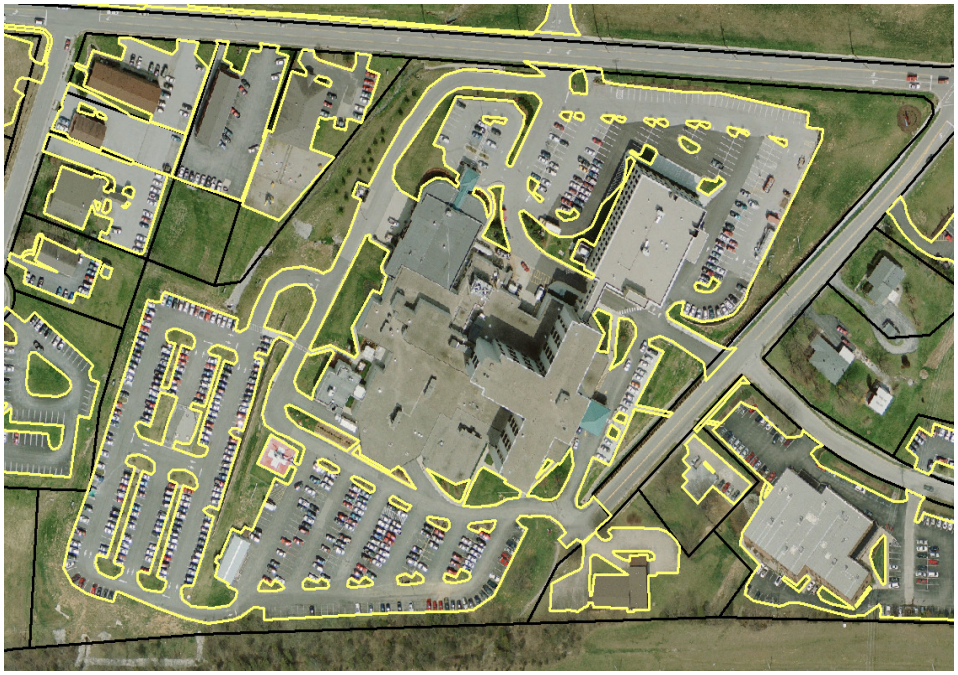
Address: 299 Kings Daughters Drive

Frankfort, KY

Impervious Area Measurement:

470,490 sq. ft.

470,490 ÷ 3,800 (ERU) = 124



Rate = $4.00 per month per ERU

Charge = $4.00 x 124 = **$496.00 monthly**

$5,952.00 annually

Rate = $5.00 per month per ERU

Charge = $5.00 x 124 = **$620.00 monthly**

$7440.00 annually

Commonwealth of Kentucky (city)

Address: 275 E. Main St.

Frankfort, KY

Impervious Area Measurement:

1,111,870 sq. ft.

1,111,870 ÷ 3,800 (ERU) = 293

Rate = **$4.00** per month per ERU

Charge = $4.00 x 293 = **$1,172.00 monthly**

$14,064.00 annually

Rate = **$5.00** per month per ERU

Charge = $5.00 x 293 = **$1,465.00 month**ly

$17,580.00 annually

Commonwealth of Kentucky (City)

Estimated 62 Properties inside City

Impervious Area Measurement:

14,978,263 sq. ft. ÷ 3,800 (ERU) = 3,942

Rate = **$4.00** per month per ERU

Charge = $4.00 x 3,942 = **$15,768.00 monthly**

$189,216.00 annually

Rate = $5.00 per month per ERU

Charge = $5.00 x 3,942 = **$19,710.00 Monthly**

$236,520.00 annually

Commonwealth of Kentucky Overall Charges as a Percentage of Total Revenue of City

Commonwealth 15.42%

Tax Exempt **7%**

Total **22.42%** estimate

Franklin County Plan

County Storm Water Plan	Scenario 1	Scenario 2	Recommendation	Managed By	Split
Rate Plan	$4.00	$5.00	$5.60		
NPDES Storm Water Permit & Water Quality	$55,250	$55,250	$55,250	Co-Permittee	75%/25%
Drainage / Flood Protection & Maintenance	$55,250	$55,250	$103,250	City/County	75%/25%
Debt Service / Capital	$288,129	404,129	$425,344	City/County	75%/25%
Billing System Costs	$62,156	$62,156	$62,156	City/County	75%/25%
Total Annual Program Costs	$460,785	$576,785	$646,000		

Franklin County Impervious Area Examples

Jeff Wyler Honda (county)

Address: 1438 – 1440 Versailles Rd.
Frankfort, KY

Impervious Area Measurement:

149,020 sq. ft.

149,020 ÷ 3,800 (ERU) = 39

Rate = **$4.00** per month per ERU

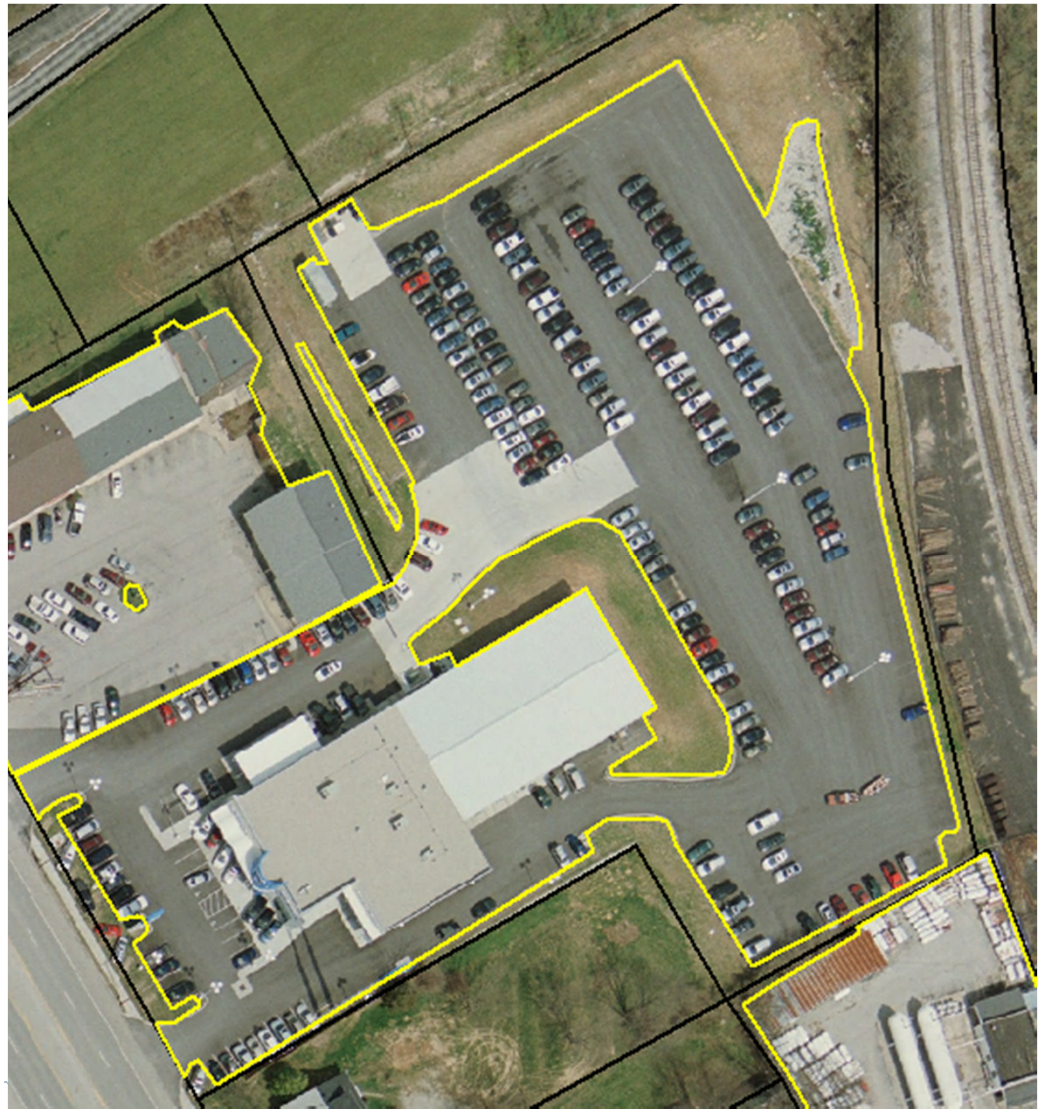
Charge = $4.00 x 39 = **$156.00 monthly**

$1,872.00 annually

Rate = **$5.00** per month per ERU

Charge = $5.00 x 39 = **$195.00 monthly**

$2,340.00 annually



Buffalo Trace Distillery (County)

Address: 113 Great Buffalo Trace

Frankfort, KY

Impervious Area Measurement:

1,497,745 sq. ft.

1,497,745 ÷ 3,800 (ERU) = 394

Rate = **$4.00** per month per ERU

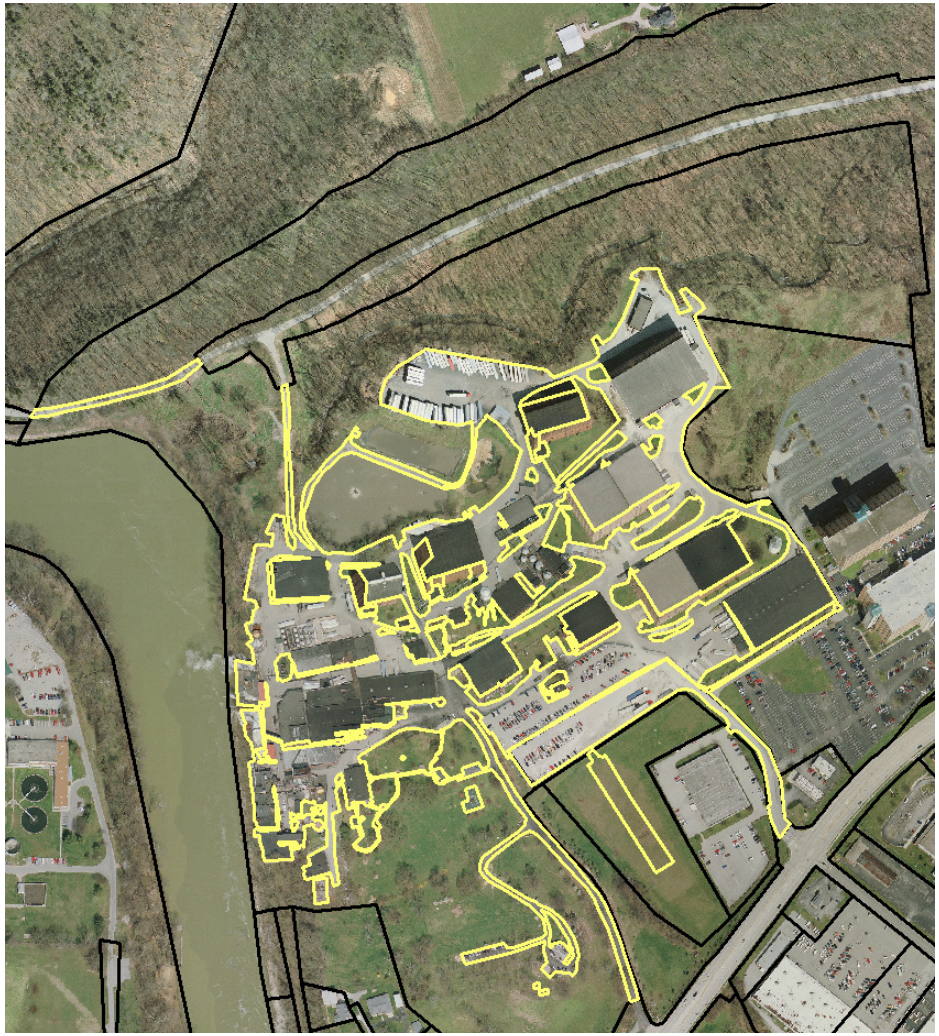
Charge = $4.00 x 394 = **$1,576.00 monthly**

$18,912.00 annually

Rate = **$5.00** per month per ERU

Charge = $5.00 x 394 = **$1,970.00 monthly**

$23,640.00 annually



Montaplast (county)

Address: 2000 Hoover Blvd

Frankfort, KY

Impervious Area Measurement:

1,154,494 sq. ft.

1,154,494 ÷ 3,800 (ERU) = 304

Rate = **$4.00** per month per ERU

Charge = $4.00 x 304 = **$1,216.00 monthly**

$14,542.00 annually

Rate = **$5.00** per month per ERU

Charge = $5.00 x 304 = **$1,520.00 monthly**

$18,240.00 annually

TOPY Corporation (county)

Address: 980 Industrial Park Rd.

Frankfort, KY

Impervious Area Measurement:

1,002,316 sq. ft.

1,002,316 ÷ 3,800 (ERU) = 264

Rate = **$4.00** per month per ERU

Charge = $4.00 x 264 = **$1,056.00 monthly**

$12,672.00 annually

Rate = **$5.00** per month per ERU

Charge = $5.00 x 264 = **$1,320.00 monthly**

$15,840.00 annually

Boone Plaza Church of Christ (county)

Address: 1020 Holly Hill Dr.

Frankfort, KY

Impervious Area Measurement:

52,426 sq. ft.

52,426 ÷ 3,800 (ERU) = 14

Rate = **$4.00** per month per ERU

Charge = $4.00 x 14 = **$56.00 monthly**

$672.00 annually

Rate = **$5.00** per month per ERU

Charge = $5.00 x 14 = **$70.00 monthly**

$840.00 annually

Frankfort Christian Academy Inc. (county)

Address: 1349 Leestown Road

Frankfort, KY

Impervious Area Measurement:

577,699 sq. ft.

577,699 ÷ 3,800 (ERU) = 152

Rate = **$4.00** per month per ERU

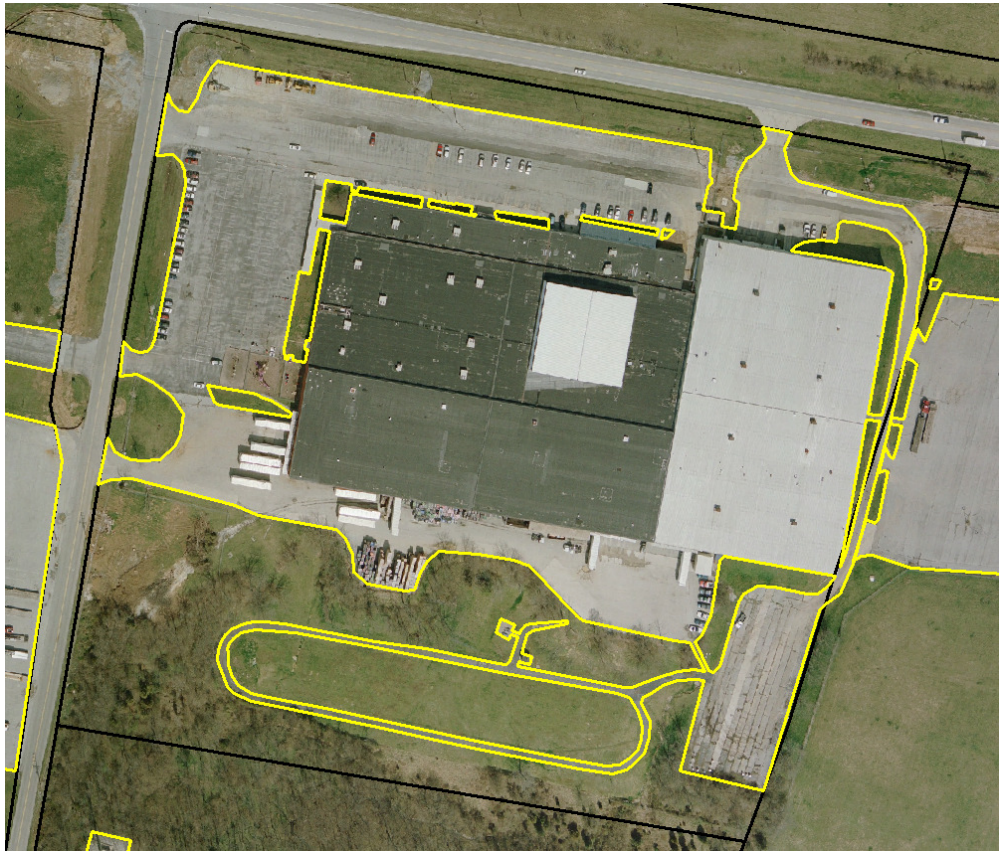
Charge = $4.00 x 152 = **$608.00 monthly**

$7,296.00 annually

Rate = $5.00 per month per ERU

Charge = $5.00 x 152 = **$760.00 monthly**

$9120.00 annually



Commonwealth of Kentucky (County)

Estimated 6 Properties inside County

Impervious Area Measurement:

1,075,655 sq. ft. ÷ 3,800 (ERU) = 283

Rate = **$4.00** per month per ERU

Charge = $4.00 x 283 = **$1,132.00 monthly**

$13,584.00 annually

Rate = $5.00 per month per ERU

Charge = $5.00 x 283 = **$1,415.00 monthly**

$16,980.00 annually

Commonwealth of Kentucky Overall Charges as a Percentage of Total Revenue of County

Commonwealth 2.94%

What are other Communities Paying for Storm Water Management?

Community	Rate*	Population	Revenues**
Louisville MSD, KY	$6.46	700,000	$31,000,000
Warren County, KY	$6.00	31,500	$350,000
SD1 (Northern KY)	$4.68	340,000	$10,000,000
Cold Spring, KY	$4.68	6,000	$275,000
Radcliff, KY	$4.50	22,000	$750,000
Lexington, KY	$4.32	472,000	$10,000,000
Oldham County, KY	$3.43	40,000	$1,500,000
Danville, KY	$3.36	16,000	$250,000
Hopkinsville, KY	$3.00	22,000	$250,000
Florence, KY	$2.50	30,000	$400,000

*Rate information is based solely on internet research.

**Revenues are estimated based on rates

Western Kentucky University Storm Water Utility Survey:

- 1,310 Utilities Nationwide
- 2,970 sq ft Average ERU
- **$4.20 /ERU Average Monthly Billing Rate**

Some things to keep in mind:

- Many of these utilities are water quality only
- Many of these utilities are older and have not had rate increases
- Many of these utilities were underfunded from the beginning

Rate Recommendation

Consultant (Business Plan Based)

- **$5.60 - provides the best across the board level of service, maintenance, reserve capital, & billing**

Or

Staff Request

- **$5.00 – provides capital but no safety factor for billing**

Or

- **$4.00 – minimum program / less reserve capital**

Path Forward

Storm water utility fees get 2nd look

Council to consider calls for lower monthly cost

BY TOM JEWELL
BLADE STAFF WRITER

The possibility of lower fees than originally proposed with the establishment of a Toledo storm water facility will be getting more scrutiny in a city council committee.

Toledo council's environment, utilities, and public service committee heard opinions and asked questions about the utility proposal during a 2½-hour public hearing yesterday in council chambers.

The storm water utility and charges on property are being considered as a way of repairing and upgrading Toledo's antiquated storm sewers and drainage system, which are beset with problems.

The Toledo Area Chamber of Commerce water and sewer rate review committee endorsed the formation of the storm water agency if four conditions are met, including a lower fee than that in the proposed legislation before council.

The chamber proposal called for a monthly charge of $2.26 for each residential unit and its equivalent in business property to be charged on the basis of the area of surfaces that do not absorb storm water, such as roofs and paved parking lots. That's $1.56 less than the $3.82 basic monthly fee initially proposed by the administration and recommended by the city's consultant.

It would be possible to fund the storm drainage operation with a $3.06 fee, if some services were reduced from those offered through the higher rate, Robert Williams, commissioner of field services of the public utilities department, told the council panel.

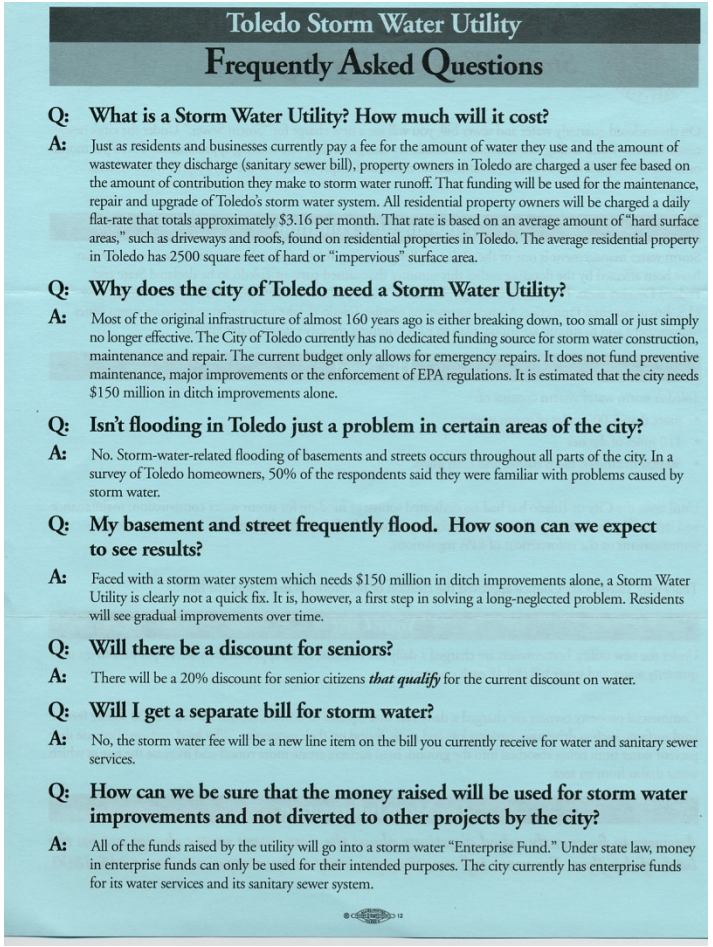
BLADE PHOTO BY DON SIMMONS

William Knight, left, of the Toledo Metropolitan Area Council of Governments, and Councilman Pete Gerken discuss storm water runoff near a sink hole on Detroit Avenue near Sherwood Drive.

1. Public Involvement, Education, & Outreach
2. Legal / Organization Development
3. Billing Policies / Billing Database
4. Incentives Program
5. Billing System Development
6. Customer Service training
7. Send out Bills

Public Involvement, Education, & Outreach

- Create a Stakeholder Advisory Committee
- Presentations to community groups, business and industry groups, etc.
- Brochures & Factsheets
- Frequently Asked Questions
- Web Site
- Letters to the Top 100 Customers
- Meet with top 5 to 10 Customers (State of Kentucky, KSU, School System, etc.)
- Public Surveys



Toledo Storm Water Utility

Frequently Asked Questions

Q: What is a Storm Water Utility? How much will it cost?

A: Just as residents and businesses currently pay a fee for the amount of water they use and the amount of wastewater they discharge (sanitary sewer bill), property owners in Toledo are charged a user fee based on the amount of contribution they make to storm water runoff. That funding will be used for the maintenance, repair and upgrade of Toledo's storm water system. All residential property owners will be charged a daily flat-rate that totals approximately $3.16 per month. That rate is based on an average amount of "hard surface areas," such as driveways and roofs, found on residential properties in Toledo. The average residential property in Toledo has 2500 square feet of hard or "impervious" surface area.

Q: Why does the city of Toledo need a Storm Water Utility?

A: Most of the original infrastructure of almost 160 years ago is either breaking down, too small or just simply no longer effective. The City of Toledo currently has no dedicated funding source for storm water construction, maintenance and repair. The current budget only allows for emergency repairs. It does not fund preventive maintenance, major improvements or the enforcement of EPA regulations. It is estimated that the city needs $150 million in ditch improvements alone.

Q: Isn't flooding in Toledo just a problem in certain areas of the city?

A: No. Storm-water-related flooding of basements and streets occurs throughout all parts of the city. In a survey of Toledo homeowners, 50% of the respondents said they were familiar with problems caused by storm water.

Q: My basement and street frequently flood. How soon can we expect to see results?

A: Faced with a storm water system which needs $150 million in ditch improvements alone, a Storm Water Utility is clearly not a quick fix. It is, however, a first step in solving a long-neglected problem. Residents will see gradual improvements over time.

Q: Will there be a discount for seniors?

A: There will be a 20% discount for senior citizens ***that qualify*** for the current discount on water.

Q: Will I get a separate bill for storm water?

A: No, the storm water fee will be a new line item on the bill you currently receive for water and sanitary sewer services.

Q: How can we be sure that the money raised will be used for storm water improvements and not diverted to other projects by the city?

A: All of the funds raised by the utility will go into a storm water "Enterprise Fund." Under state law, money in enterprise funds can only be used for their intended purposes. The city currently has enterprise funds for its water services and its sanitary sewer system.

Legal / Organization Development

- **Review legal and organizational options**
- **Work with City and County Attorney to determine the best option**
- **Work with City and County Attorney to draft legal / organizational**
- **Obtain Elected Official approval of organizational legal documents**

Billing System Development

What Needs to be Accomplished?

- Determine utilities to be a part of the Billing System
- Determine Billing Mechanism
- Develop Billing Policy Papers
- Determine Final ERU
- Complete measurement of impervious areas
- Reconcile Databases
- Prepare Master Account File
- Run billing test
- Train Customer Service
- Prepare Bills and send to customers

Stormwater Incentives Program

- A program to reduce the impact of impervious area on the quantity and quality of storm water drainage
- To offer nonresidential property owners an opportunity to recoup a portion of the their storm water fee
- Reduces the cost of service that otherwise would need to be performed by the city/county

- Business community partnering
- Public involvement
- EPA NPDES storm water permit
- Reduce the storm water impact.

Stormwater Incentives Program

- Credits Advisory Committee (CAC)
- Members from:
  - business
  - industry
  - education
  - engineering
  - government
  - health care
- Facilitated sessions to address storm water credit issues
- Develop evaluation criteria
- Select credit mechanisms (i.e. Detention, Water Quality Pond, Pavers, Bio-retention etc.)

Stormwater Utility Advantages

- Everybody Pays
- Less subject to swings in the economy - Reduces the dependency on the General Fund
- Enterprise Fund – protected Revenue Fund
- Fee Based Revenue
- Cost based on customer contributions to system need.
- Recommended by Regulatory Agencies
- Encourages Incentives for individuals to manage runoff from their property.

Stormwater Utility Advantages

- **Steady dedicated funding stream that allows Staff to develop an annual budget.**
- **Same model as Water and Wastewater**
- **Over 3,000 communities all across the country have utilized this type of funding option**
- **Establishes a Legally Defensible Dedicated Funding Source to address Stormwater Projects**
- **Organizes the current piecemeal stormwater program into an well managed program similar to the sewer department**
- **Allows for Grant Matching Funds to bring maximize program revenues**
- **Allows Funding for Draiinage, Water Quality(MS4) and CSO projects**

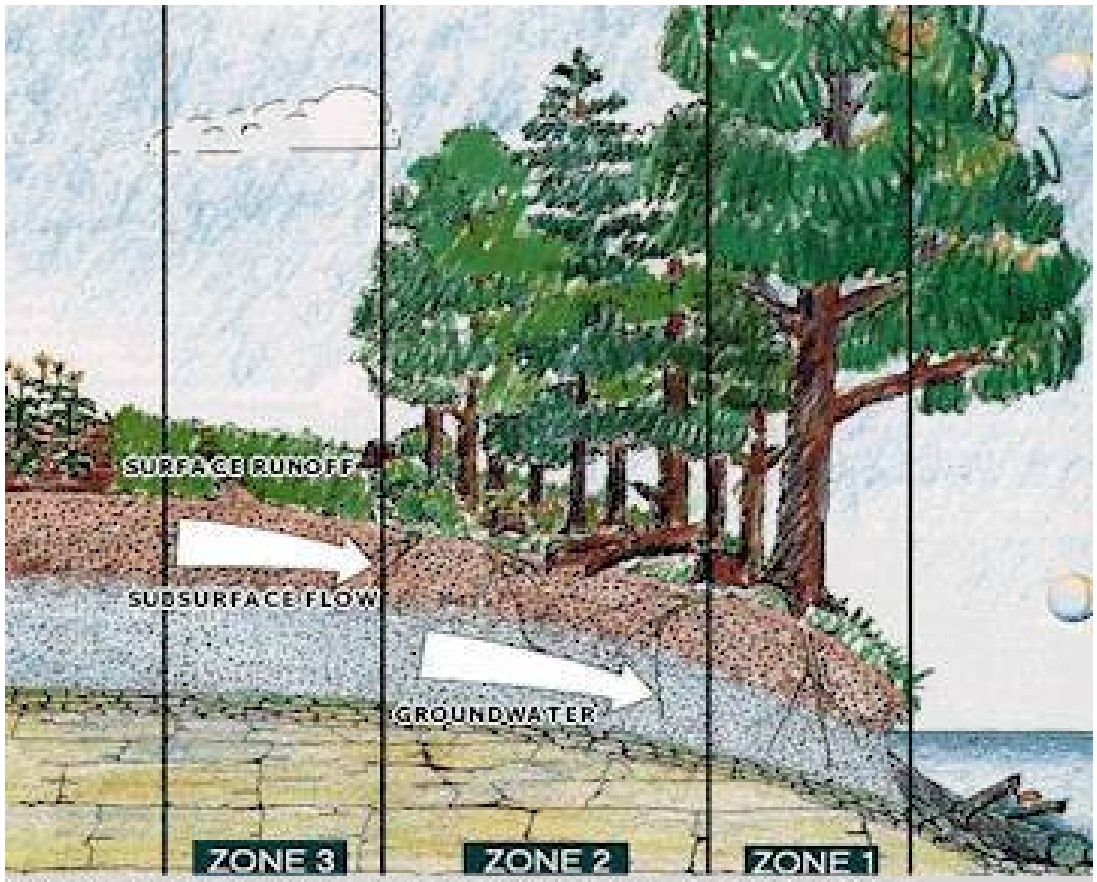
Stormwater Utility Disadvantages

- Charging Non-Profits
- Large Impervious Property
- Expensive to establish
- All single family units pay the same regardless of size
- Controversial to establish
- Costly to administer
- Public may accuse the City and County of creating another bureaucracy

Schedule

Project Tasks	March-14	April-14	May-14	June-14	July-14	August-14	September-14	October-14	November-14	December-14	January-15
Task 1 - Perform Rate Structure Analysis											
Task 2 - Complete the Measuring of the Impervious Areas											
Task 3 - Develop Billing Policy Papers											
Task 4 - Develop Master Account File (Database Merge/Manipulation)											
Task 5 - Develop ERU for City and County											
Task 6 - Finalize Legal/Organizational Program											
Task 7 - Perform Public Involvement/Education Program Activities											
Task 8 - Create and Hold 4 SWAC Meetings				X	X	X					
Task 9 - Prepare and Hold STAC Meetings	X	X	X	X	X	X	X	X	X	X	X
Task 10 - Provide Legal Advice (Ordinance and Resolution Development)											
Task 11 - Development Credit Program											
Task 12 - Develop Customer Appeals Process											
Task 13 - Hold 2 Public Hearings for new Stormwater Rate											
Task 14 - Elected Official Final Presentation											
Task 15 - Executive Summary Final Report											

Questions



Sketch of a typical riparian forest buffer (Source: Chesapeake Bay Program, 2000)