

# Stormwater Utility Fee Advisory / Technical Committee Meeting

June 13, 2011  
4 – 5:30 p.m.

## June 13, 2011 Meeting Agenda

1. Minutes (May 9, 2011)
2. Member Inquiries / Staff Follow-up
3. Stormwater Management – Credit and Incentive Plan
4. Surveys
5. Public Participation
6. Next Meeting (July 11, 2011)
7. Adjourn



# Stormwater Utility Fee Advisory / Technical Committee Meeting

June 13, 2011

Agenda Item 1

May 9, 2011 Meeting Minutes



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**City of Champaign, Illinois**  
**Minutes of Meeting**

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**Stormwater Utility Fee Advisory & Technical Committees Meeting**

**May 9, 2011**

**Advisory Committee Members Present:** Charles Allen, Eliana Brown, Steve Cochran, James Creighton, Karen Foster, Jim Jesso, Vic McIntosh

**Advisory Committee Members Absent:** Donald Agin, Jim Bustard, Clif Carey, Jim Spencer, David Tomlinson, Anna Marie Watkin

**Technical Committee Members Present:** Lorrie Pearson, Leslie Lundy, Mark Toalson

**Technical Committee Members Absent:** Shawn Luesse

**City Staff Present:** Dennis Schmidt, Jamie Vermillion, Roland White

**Consultants Present:** Greg Kacvinsky – Foth Infrastructure & Environmental, Doug Noel– AMEC Earth & Environmental

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**Call to Order**

The meeting was called to order at 4:04 p.m.

**Minutes**

The minutes from April 11, 2011 were approved.

**Member Inquiries/Staff Follow-up**

There were no member inquiries or staff follow-up items.

**Stormwater Management – Revenue Plan**

Noel made a presentation discussing the revenue plan for the stormwater utility fee.

Jesso asked if an annual stormwater utility fee rate increase based upon CPI will occur after the first year of the program. Schmidt indicated any rate increases would be discussed with and approved by City Council.

McIntosh asked if the figures provided on the rate models take into account a credit or incentive program. Schmidt explained both the \$2.2 million and \$3.2 million expenditure plans dedicate \$100,000 for credit and/or incentive programs and the rate models do take into account such programs.

Foster asked what the term “iterative process” means. Noel explained that the consultant completes a process which utilizes trial and error calculations to determine a rate that will keep a positive fund balance for ten years.

Brown asked if the City would be responsible for paying a stormwater utility fee for City-owned parking lots. Schmidt explained the City would be required to pay a stormwater utility fee for all City-owned lots. He noted the slanted parking spaces outside of the City Building are part of the right-of way and not a City-owned lot. There would be no charge to the City for this particular area.

Foster asked why there are several parcel numbers for the property depicted in the “Scott Park Apartments” slide. Noel explained there are multiple parcels because the parcels have not been combined and the assessor still considers them separate parcels.

Foster asked if the Champaign Park District would be charged by each property or would all properties be combined together. Schmidt explained the initial bill would have a breakdown of billing showing calculations for each property. Following the initial billing, the monthly invoice would show an aggregate sum owed for all properties owned by the Champaign Park District.

Foster asked how Kraft Foods would be charged since their property is not technically within the City limits. Schmidt explained that he is not sure how and if Kraft will be charged at this time. There will be a discussion with Council concerning whether a property outside of City limits which contributes stormwater to City infrastructure would be charged a stormwater utility fee. Additionally, if a property within the City’s corporate limits does not drain into the City’s stormwater drainage system, they may not be required to pay.

Brown asked what the rationale is for making right of ways and streets exempt from the stormwater utility fee. Schmidt indicated that those property types are typically exempt from a stormwater utility fee because these are commonly used by everyone. Additionally, many streets in newer subdivisions not only serve as transportation thoroughfares, but also as conveyors of stormwater.

Jesso asked if there has been any consideration to provide discounts or exemptions for elderly residents. Schmidt indicated there was not anything like that under consideration. He further explained that through media and other publicity, residents will be given notice that a stormwater utility fee is impending, so they will be able to plan and budget for this additional cost in advance.

Noel noted that some communities provide assistance to residents for utilities. Brown asked if that type of program is available in Champaign. Schmidt indicated he does not think that any bills payable to the City are included in those programs.

Jesso asked if there will be a collections process for property owners who do not pay their stormwater utility fee bills. Schmidt explained that if the City partners with the Urbana-

Champaign Sanitary District (UCSD) to provide billing services, they will send past due balance notices. Following that, the City would file liens on the property.

**Surveys**

McIntosh encouraged Committee Members to complete the surveys found at the end of the meeting packet.

**Public Participation**

There were not questions or comments made by the public.

**Next Meeting**

McIntosh announced the next meeting will be held June 13, 2011 at 4 p.m. in Council Chambers of the City Building.

**Adjourn**

The meeting was adjourned at 4:54 p.m.

# Stormwater Utility Fee Advisory / Technical Committee Meeting

June 13, 2011

Agenda Item 2

Member Inquiries / Staff Follow-up



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**Dennis Schmidt - Re: FW: Champaign Stormwater Utility Fee Advisory Committee  
5/9/11**

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**From:** Dennis Schmidt  
**To:** Dempsey, John G (Facilities & Services)  
**Subject:** Re: FW: Champaign Stormwater Utility Fee Advisory Committee 5/9/11  
**CC:** Bennett, Brad; Bullard, Clark W; Carter, Steve; Gray, Bill; SWUFAC; White, Roland

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Jack - Thanks for your comments, you are always welcome at one of the committee meetings. Next meeting is scheduled for Monday, June 13 at 4:00 in the City Council Chambers.

With respect to you comment about concerning linking the rates to the CPI, I will make note of your comment and make sure that Council is aware of the University's position on this issue. As you noted in your comments Council will make those decisions.

I will also note the University's request concerning the inclusion of streets, sidewalks and right of way as impervious surfaces eligible for billing. We are not considering exempting City property. Our intention is to include that and bill those properties such as surface parking lots, City Building, Fire Stations, Police Station and Public Works Facilities.

I am not sure I am following your question concerning "How are we going to improve in a measurable way the flows and levels within and outside the watershed?". Staff, the Committee and you could discuss that further at the June 13 meeting or it could be discussed at the next meeting that Champaign/Urbana will have with the University to discuss the stormwater utility fee. I am pretty sure that Urbana will be contacting the University in the near future to schedule the next one of these meetings.

Thanks again for your comments and please feel free to contact me at any time with additional questions.

Dennis

>>> "Dempsey, John G (Facilities & Services)" <jgdempse@illinois.edu> 5/10/2011 10:51 AM >>>

Dennis, for the record the University is opposed to any revenue plan that assumes any annual cost escalation or annual rate increases tied to the CPI. I am not opposed to paying our fair share, but believe any future rate increases should be approved by a vote of the City Council.

Also, please reconsider the exemption for streets, sidewalks, rights of way and City owned property should come from the general revenue fund and not be a part of individual owners costs.

More important than the details of financing is what we are trying to do here. Everything seems to be focused on replacing a tax stream with a fee and providing enhanced maintenance and repair to the existing facilities. Basically doing what we have been doing (or haven't been doing) only better. There needs to be more to it than that. How are we going to improve in a measurable way the flows and levels within and outside the watershed?

I look forward to discussing these thoughts with the committee at the next meeting.

**From:** Brown, C Eliana (Facilities & Services)

**Sent:** Tuesday, May 10, 2011 10:01 AM

**To:** Dempsey, John G (Facilities & Services)

**Cc:** Banks, Maureen M (Facilities & Services); Wilcoxon, David B (Facilities & Services); Harriss, Judy A (Facilities & Services)

**Subject:** Champaign Stormwater Utility Fee Advisory Committee 5/9/11

**Meeting Notes**

Doug Noel of AMEC and Dennis Schmidt led Champaign's May Stormwater Utility Fee Meeting on 5/9/11. They presented the attached revenue plan/preliminary rate. The plan assumes 3% annual cost escalation and an annual rate increase of 1.5% (page 4). They presented two expenditure plans: \$2.2M and \$3.2M and showed preliminary rates for several Champaign buildings including the University Ice Arena (page 11).

As with Urbana, they are exempting streets, sidewalks, right of ways, and other City owned services from the fee because "they are commonly used by everyone". Noel and Schmidt do refer to the fee as a "revenue increase".

The next meeting is June 13 when they will present the credit and incentive program.

**Dennis Schmidt - Re: Stormwater utility fee web site**

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**From:** Patsi Petrie <pattsi@uiuc.edu>  
**To:** "Dennis Schmidt" <SCHMIDDJ@ci.champaign.il.us>  
**Date:** 5/20/2011 3:49 PM  
**Subject:** Re: Stormwater utility fee web site  
**CC:** "nancy Taylor" <ntaylor@ameritech.net>, "Alex Nagy" <NAGYAM.PWD.CITY@ci.champaign.il.us>, "Roland White" <WHITEWR.PWD.CITY@ci.champaign.il.us>, "Debra Windlan" <WINDLADF.PWD.CITY@ci.champaign.il.us>, "Steve Cochran" <srcochran@city.urbana.il.us>

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My thanks are being conveyed from the perspective of the citizens of Champaign.

Have a great weekend everyone, P2

At 03:10 PM 5/20/2011, Dennis Schmidt wrote:

Patsi - All the survey forms have been converted to survey monkey. Thanks for the suggestion. This format is much more user friendly.

The City's IT Department indicated they will create a link to the survey forms on the first page of the City's website under "visitor" and "business". Public Works cannot do this. IT can only do it. IT did not give us a time frame but my secretary will stay on them.

My secretary will also get the e-mail addresses posted for the committee members. She will do that Monday. Only one committee member declined.

Have a nice weekend.

Dennis

>>> Patsi Petrie <pattsi@uiuc.edu> 5/13/2011 4:06 PM >>>

Dennis, as always I appreciate the time you have taken to reply with informative answers.

Have a good weekend, P2

At 03:36 PM 5/13/2011, Dennis Schmidt wrote:

Patsi - Thanks for the suggestion concerning the Survey Monkey. I will have my secretary look into revising the forms to be compatible with that format. I will also see if information on the survey forms can be posted somewhere on the first page of the City's website for a period of time to increase public awareness of the surveys.

With respect to contact information of the committee members, I will have my secretary check to see if they have a problem with posting their contact

information. If they are OK with that then we will post that.

Also thank-you for thoughts on how this information might eventually impact the public acceptability of the fee.

Let me know if you have any additional questions. Have a nice weekend.

Dennis

>>> Patsi Petrie <patsi@uiuc.edu> 5/13/2011 2:42 PM >>>

Dennis, I am on this web site because I had planned to fill out the most recent survey about credits and incentives. First, I discovered that the survey is a PDF rather than an interactive survey, such as Survey Monkey, and this is the case with all of the surveys posted on the web site. Second, I would not have known about the survey, but for the John St. steering committee meeting last evening. Why is the survey not interactive and why is there not more publicity to get public input?

Next I tried to send the survey responses and additional comments to the advisory and technical committees. This I can not do because there is absolutely no contact information on the web site for the members. The only contact information is for you. How can the public who might want to communicate, but can not come to the public meetings do such directly?

I do not have a printer and this is the case for others so to assume that people can print off a PDF may add to the limiting of public input. In this age of advanced technology, I am beginning to come to a thought that there are too many barriers for public input.

I strongly urge one more time that this modus operandi move to a more interactive format with the public so there will be a beginning acceptance of the fee. Right now my prediction is that there will be a non positive ground swell against a fee, even though it appears the council favors such.

P2

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Patsi Petrie, PhD, AICP

P2 Consulting

Champaign County Board member, district 6

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PHONE: 217.356.7503 (o) FAX: 217.244.1717

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**From:** Patti Petrie <pattsi@uiuc.edu>  
**To:** "Roland White" <Roland.White@ci.champaign.il.us>, "nancy Taylor" <ntaylo...>  
**Date:** 5/24/2011 3:05 PM  
**Subject:** Re: corner of Healey and Willis

I appreciate the exchange of ideas. Just a brief clarification--I am not suggesting tying ordinances to the user fee. I am suggesting that we need such ordinances independently to the fee. If such had been in place related to the two houses, mitigation would have to be part of the house design. As to the footing tile situation, Building Research Council has been recommending for over 30 years to detach or never attached downspouts to footing tile. Maybe this ought to be an ordinance. I am still concerned about the flooding problems along Healey. This house is exactly where the flooding is the worse and then west of me. I know that I have been assured that the work along John will relieve back up as far away as Healey. Yet I still am concerned. I will be delighted to be wrong. In any case, a house putting downspouts into footing tile that goes into 8 inch main pipe is questionable. :-)

P2

At 01:03 PM 5/24/2011, Roland White wrote:

>Pattsi,  
>Thanks as always for your input. I am not sure I would draw the same  
>conclusion that you do about  
>"...toward a stormwater utility fee without any parallel movement to  
>establish ordinances that would have mitigated the three above  
>examples." I believe we are a midpoint in our discussion about the  
>Utility Fee and will be seeking even more public input as we go. Part of  
>that discussion will be about credits and incentives that may have an  
>impact about what you are talking about. Remember also that we need to be  
>careful not to attach too many conditions to the implementation of a  
>utility fee as we may not get it adopted in the first place. The City  
>Council will have the ultimate decision on this an other related issues  
>having to do with the implementation of a SWUF. Having said that I  
>encourage you to stay engaged and keep giving input.  
>Thanks  
>Roland  
>  
>  
> >>> Patti Petrie <pattsi@uiuc.edu> 5/24/2011 12:28 PM >>>  
>As we all are working so hard to mitigate the flooding issues within the  
>John St watershed, I have now run across another example of counter  
>purpose. This is the third. The first two have to do with the houses being  
>built on lots that have been open for the 40 years that I have lived in the  
>area. One house now occupies a lot on Daniel just west of Clark Park and  
>the other on the NW corner of Armory and James. Both houses are being built  
>lot line to lot line with absolutely no mitigation to compensate for the  
>increased runoff from the sites.  
>  
>Today as I was walking the dog along Healey, I learned that the work being  
>done on the house at the NW corner of Healey and Willis includes replacing  
>all of the footing tile, tying in all of the downspouts into this footing  
>tile, and connecting all of these new tiles to the main.  
>  
>None of these projects are illegal. This is the major problem. The city is

- >moving toward a stormwater utility fee without any parallel movement to
- >establish ordinances that would have mitigated the three above examples.
- >Just having more money is not the only approach to mitigate the stormwater
- >issues in this community.
- >
- >Personally, I am trying hard to get on board to support the fee. I will
- >have a very hard time doing so without parallel actions to mitigate water
- >getting into the system.
- >
- >P2

# Stormwater Utility Fee Advisory / Technical Committee Meeting

June 13, 2011

Agenda Item 3  
Credit and Incentive Plan



## *Preliminary Revenue Plan*

- Parcels
- Single Family & Duplexes = 18,367
- All Other = 4,379
- \$2.2M Expenditure Plan
  - Single Family and Duplex \$ 3.82/mo  
(flat fee) \$ 45.84/yr
  - All Other (Demand) \$ 3.82/mo / 3,478 sf imperv  
\$ 45.84/yr / 3,478 sf imperv
- \$3.2M Expenditure Plan
  - Single Family and Duplex \$ 5.24/mo  
(flat fee) \$ 62.88/yr
  - All Other (Demand) \$ 5.24/mo / 3,478 sf imperv  
\$ 62.88/yr / 3,478 sf imperv

For Example:

- Assumptions:
  - \$3.2M Expenditure Plan
  - Commercial Parcel
  - 10,000 Sq. Ft. of Impervious Area
- Stormwater Utility Fee
  - $10,000 \text{ Ft}^2 \div 3,478 \text{ Ft}^2/\text{ERU} = 2.87$
  - $3.0 \text{ ERU} \times \$5.24/\text{month} = \$15.72 \text{ per month}$   
(\$188.64/year)

## Stormwater Utility Fee - Theory

- Fee = Demand – Stormwater Infrastructure
- Measure Demand – Impervious Area
- More Impervious Area – More Demand – the Higher the Stormwater Fee

## Credit and Incentive Plan

- Not All Properties – Same Benefits
- Not All Properties – Same Demands
  - Geography
  - Property Owner Improvements
  - Reduce Cost to City
- Purpose – Credit and Incentive Plan – Recognize – Savings – Reduced Stormwater Utility Fees

## Credit and Incentive Plan

- Credits
  - Recurring Discounts Stormwater Utility Fee
  - Implementing – Qualifying Stormwater Management Activities – Parcel
- Incentives
  - One-Time Discounts – Stormwater Utility Fee
  - Implementing – Qualifying Stormwater Management Activities – Parcel

## Qualifying Stormwater Management Activities

- Anything that Provides...
  - Reduction in Peak Runoff Discharges
    - Detention Basin
  - Reduction in Runoff Volume
    - Rain Barrels
  - A Water Quality Benefit
    - Rain Garden
  - Combination of the Above

## Credit & Incentive Plan Summary City of Champaign

- Credit and Incentives
  - Rate Reductions
  - Volume Reductions
  - Water Quality Improvements
- Direct Discharge Credits
- Educational Credits

## Credit & Incentive Plan Single Family & Duplex Properties

- Incentives
  - Rain Barrel - \$25 per property
  - Rain Garden - \$250 per property (minimum 100 Ft<sup>2</sup>)
  - Other (stormwater management activity)
    - Rate Reduction
    - Volume Reduction
    - Water Quality
    - 25% of Cost - \$250 per property (maximum)
    - Proportional

## Credit & Incentive Plan Single Family & Duplex Incentive Goals

- Simple – Property Owners – Obtain w/o Professional Assistance – Cost
- Incentive  $\approx$  5 years – Value – Stormwater Utility Fee
- Not Overly Complicate – Stormwater Utility Fee Billing System

## Credit & Incentive Plan Other Parcels

- Rate Reduction Credit – maximum 15%
  1. Private Detention Basins
    - Demonstrate Annual Maintenance – Complete
    - 5 Year Renewal – Professional Certification
    - Per City’s Manual of Practice
    - Single Family & Duplex Properties

## Credit & Incentive Plan Other Parcels

- Rate Reduction Credit – maximum 15%
  2. Other – Rate Reduction Activities
    - Criteria – Rate Reduction – Equivalent – Requirements – Stormwater Management Regulations
    - Proportional
    - Plan – Professional Certification
    - Renewal – 5 Years – Professional Certification

## Credit & Incentive Plan Other Parcels

- Volume Reduction Credit – maximum 15%
- Criteria
  - 1-Inch Storage – Impervious Area
  - Infiltrate or Reuse – Stored Rainwater – 72 Hours
  - Goal – Rain Does Not Runoff – Stored and Reused
  - Credit Proportional – Rain Stored / Impervious Area Served
  - Plan – Professional Certificate
  - Renewal – 5 Years – Professional Certification
  - Could Qualify for Water Quality Credit

## Credit & Incentive Plan Other Parcels

- Water Quality Credit – 10%
  - Criteria – 75% Reduction of Total Suspended Solids – Annually from the Property
  - Credit Proportional – Removal % / Impervious Area
  - Plan – Professional Certification
  - Renewal – 5 Years – Professional Certification
- NPDES – 5%

## Educational Credit

- K-12 Eligibility
- Water Quality, Reuse, Conservation Based Curriculum
- \$5 per Student per Year – Participate in the Curriculum
- City's – NPDES - BMP

## Direct Discharge Credit Other Parcels

- Properties – Runoff – Stormwater Infrastructure Not Maintained – City
- 50% Maximum Credit
- Plan – Demonstrating – Meet Criteria

## Credit & Incentive Plan <sup>(1)</sup> Summary

### Incentives <sup>(2)</sup>

	Rate Reduction	Volume Reduction	Water Quality	Direct Discharge	Education
Single Family	\$250	\$250	\$250	-	-
Duplex	\$250	\$250	\$250	-	-

### Credits

Single Family	15% <sup>(3)</sup>	-	-	-	-
Duplex	15% <sup>(3)</sup>	-	-	-	-
Other	15 - 30%	15%	15%	50 - 95%	
Education (K-12)	15%	15%	15%	50%	\$5/student

Notes:

1. A stormwater management activity can qualify for either a credit or incentive, but not both.
2. Rain barrel and rain garden incentives are \$25 & \$250, respectively. All other incentives are 25% of construction cost up to a maximum of \$250.
3. Only qualifying stormwater management activity is private detention basin maintenance.

## Credit & Incentive Plan Financial Impact Estimate

Category	Description	Annual Maximum Rate	Eligible Base (% Area)	Reduction in Charges	Estimated Annual Total Financial Impact by Program	
Program Size					\$2,200,000	\$ 3,200,000
Incentives						
	Single Family / Duplex				\$20,000	\$20,000
	Other				\$10,000	\$10,000
Credits						
	Rate Reduction	15%	10.0%	1.50%	\$33,000	\$48,000
	Volume Reduction	15%	1.0%	0.15%	\$3,300	\$4,800
	Water Quality - BMP	10%	1.0%	0.10%	\$2,200	\$3,200
	Water Quality - NPDES	5%	6.0%	0.30%	\$6,600	\$9,600
	Water Quality - Education	\$5.00	700		\$3,500	\$3,500
	Direct Discharge	50%	1.0%	0.50%	\$11,000	\$16,000
<b>Total Estimated Impact</b>					<b>\$89,600</b>	<b>\$115,100</b>

**Total Impervious Area in City = 180M Sq Ft.**

## Municipal Credit Programs Summary

	Champaign	Normal	Highland Park	Moline	Rock Island	Morton	Bloomington
Rate Reduction Credit & Incentive	\$250 – 15 - 30%	10 – 20%	-	0 – 100%	0 – 35%	0 – 50%	25% - 50%
Volume Reduction Credit	15%	-	-	-	-	-	-
Water Quality Credit	15%	15%	-	-	10%	-	-
Direct Discharge Credit	50 - 95%	50% - 100%	0 – 100%	100%	100%	50%	0 – 100%
Education Credit	\$5	\$2.50					

Note: Rolling Meadows, Tinley Park, East Moline, Freeport, and Aurora have a stormwater utility fee but no incentive/credit program.

# Questions?



**CITY OF CHAMPAIGN  
STORMWATER UTILITY FEE  
CREDIT AND INCENTIVE PLAN**

**1. Background**

The City of Champaign is considering implementation of a stormwater utility fee. The City does not have funding to complete any additional stormwater capital improvements for the next 20 years. There are stormwater capital improvement projects that neighborhoods want the City to complete. Instead of cutting other City services or raising taxes, a stormwater utility would fund these needed neighborhood stormwater capital improvement projects.

The proposed stormwater utility fee in the City of Champaign would include a flat fee for single family residential and duplex properties, and a demand-based fee for all other properties. The measure of demand for these properties would be the amount of impervious surface on the property. Impervious surface retards the infiltration of stormwater into the soil, generating runoff. The selected billing unit for these impervious areas would be based on 3,450 square feet of impervious surface, which is equivalent to the average amount of impervious area found on single family residential properties in the community.

While not every property impacts the system exactly the same way, and not each property realizes the same benefits from the City's stormwater management program, there are some properties whose impact on the program and drainage system actually lessen the City's cost of providing these services. To acknowledge the impact that these activities or facilities have on the City's stormwater management program costs, the City has developed a system of credits and incentives through which a ratepayer (owner or occupant) could reduce their total stormwater user fee.

**2. Credits and Incentives**

Credits are recurring discounts against stormwater utility user fees that are granted because the ratepayer installed and/or implemented on their property a qualifying stormwater management activity. Incentives are one-time disbursements that are granted to the ratepayer for doing the same. Qualifying stormwater management activities that are eligible for either credits or incentives must provide either a reduction in peak discharge, a reduction in stormwater runoff volume, a water quality benefit, or some combination of the three.

**3. Single Family Residential and Duplex Properties**

Incentives would be available for single family residential and duplex properties that install specific stormwater management activities on their property. The City would budget \$20,000 per year for the single family residential and duplex incentive program. Allocation would be on a first come, first serve basis. Once the budgeted amount has been allocated, there would be no additional incentive payments for the fiscal year. Those property owners eligible for the incentive but there was insufficient funds available to pay the incentive would be first on the list for reimbursement for the next fiscal year.

### **3.1. Rain Gardens**

Rain gardens are shallow depressions planted with native perennial plants that are either located near a downspout or that are in an area that sheds noticeable amounts of rainwater. Rain gardens provide beneficial functions that are lost with conventional lawns. Rain gardens reduce runoff, absorb pollutants, and sustain some wildlife.

The City would reimburse property owners up to \$250 for a rain garden that is a minimum of 100 sq. ft. There would be only one reimbursement rain garden per property.

The property owner would be required to submit their rain garden plan to the City for review and approval. The City would pay the incentive to the property owner after construction has been completed and the construction inspected and approved by the City.

### **3.2. Rain Barrels**

Rain barrels are structures designed to intercept and store runoff from rooftops. Typically, a rain barrel is a 55-gallon drum connected to a downspout. Stored water can provide irrigation for a garden or can be released slowly to a lawn.

The City would provide an incentive of \$25 to the property owner for the purchase of rain barrels. The incentive would be limited to one per property. The incentive payment would be made after the property owner provides proof of purchase to the City.

### **3.3. Other Incentives**

Single family residential and duplex properties would be eligible for incentives for installing and/or implementing activities that provide either a reduction in peak discharge, a reduction in stormwater runoff volume, a water quality benefit or some combination of the three. The property owner could be required to submit their plan to the City for review and approval. The amount of the incentive would be 25% of the construction cost for the activity up to a maximum incentive of \$250. The City would pay the incentive to the property owner after construction has been completed and the installation inspected and approved by the City.

## **4. Properties other than Single Family Residential and Duplex**

For properties other than single family residential and duplex, there would be both a credit and an incentive program. Property owners would be able to choose which program to participate in but they could not participate in both.

There are four categories of credits available to this group of properties: 1) rate reduction credits; 2) volume reduction credits; 3) water quality/BMP credits; and 4) direct discharge credits.

**4.1. Rate Reduction Credit (Maximum 15%)**

**4.1.1. Detention Basin**

Property owners would be eligible for a rate reduction credit that discharge a portion or all of their impervious area runoff to a private detention basin that was required by the City's stormwater management regulations and built to those standards and are complying with Chapter 23 of the City's Manual of Practice for Detention Basins Standards for Maintenance and Repair Responsibilities. The credit would be applied after the City has reviewed and approved the annual report on the detention basin condition. The credit would be renewed each year upon receipt of the detention basin annual condition report and its review and approval by the City. The credit would be renewed on the fifth year upon receipt of the professional engineer's condition report and its review and approval by the City. The professional engineer's condition report is required in Chapter 23 of the City's Manual of Practice. Individual single family residential or duplex properties tributary to a private detention basin in compliance with the above requirements would be eligible for this credit.

**4.1.2. Other**

Developed non-single family residential and duplex properties that install and maintain a stormwater rate reduction device which is not required to be installed by City stormwater management regulations would be eligible for a rate reduction credit. The property owner would be required to submit their plan for the rate reduction stormwater management device to the City for review and approval. The property owners plan must be prepared and certified by a professional qualified to submit stormwater management plans. A professional engineer registered in the State of Illinois would satisfy this requirement. The rate reduction achieved by the stormwater management device must meet or exceed the requirements of the City's stormwater management regulations.

The City would apply the credit after the City approved rate reduction plan has been constructed and inspected by the City. Every five years, the City would consider renewal of the credit upon receipt of a report from the property owner prepared by a certified professional indicating the rate reduction stormwater management practice is functioning as designed and is being maintained. Credit renewal would take place after the City reviewed and approved the five-year report.

**4.2. Volume Reduction Credit (Maximum 15%)**

Volume reduction credits would be provided for those activities that reduce the total volume of runoff from a property. A volume reduction credit would require implementation of a stormwater infiltration or reuse practice. Many of these practices are also referred to as rainfall or stormwater harvesting practices, as rather than allowing the rainfall to simply runoff into a drainage system or receiving water body, the rainfall or runoff is intercepted and stored for a beneficial use, such as irrigation of lawns or plantings, or for non-potable uses such as toilet flushing.

Volume reduction practices would be able to earn up to a 15% credit, depending on the fraction of the total impervious area served and the equivalent depth of rainwater or runoff that is either infiltrated or reused. For stormwater runoff volume reduction approaches that are approved by the City, a three percent credit will be provided for every 0.20 inches of rainfall infiltrated or reused.

Volume reduction practices also provide a water quality benefit. A practice designed to capture 1.0 inches of rainfall in Champaign, Illinois would be capturing almost all runoff for 90% of the annual rainfall events, meaning 100% capture of suspended and many dissolved stormwater pollutants for most events, and a significant capture and removal for events exceeding 1.0 inches of rainfall. Therefore, a Volume Reduction Credit in all likelihood would also qualify for a Water Quality credit.

Stormwater controls that are constructed with underdrains do not qualify for this credit.

Stormwater controls must be drained within 72 hours to qualify for a Volume Reduction Credit.

The following sections define a variety of rainfall harvesting and reuse techniques that would qualify for a Volume Reduction Credit. The City is willing to consider other techniques not listed here for Volume Reduction Credits.

**4.2.1. Cisterns**

A cistern is a watertight receptacle for holding rainwater. Cisterns range in capacity from a few gallons to thousands of cubic feet, effectively forming covered reservoirs. The water in cisterns can be used for toilet flushing, irrigation, or other types of reuse and infiltration practices.

**4.2.2. Rain barrels**

Rain barrels, are structures designed to intercept and store runoff from rooftops. Typically they are approximately 55 gallon drums. Stored water can provide irrigation for a garden or can be released slowly to a lawn.

**4.2.3. Green roofs**

A green roof is a roof of a building that is partially or completely covered with vegetation and a growing medium, planted over a waterproof membrane.

Green roofs serve several purposes for a building, such as absorbing rainwater, providing insulation, creating a habitat for wildlife, and helping to lower urban air temperatures and combat the heat island effect. There are two types of green roofs: intensive roofs, which are thicker and can support a wider variety of plants but are heavier and require more maintenance, and extensive roofs, which are covered in a light layer of vegetation and are lighter than an intensive green roof.

**4.2.4. Permeable pavement**

Pervious and permeable pavements are a range of materials and techniques for paving roads, parking lots and pavements that allow the movement of water and air around the paving material. Although some porous paving materials appear nearly indistinguishable from traditional nonporous materials, their environmental effects are qualitatively different. Whether pervious concrete, porous asphalt, paving stones or bricks, all these pervious materials allow precipitation to percolate through areas that would traditionally be impervious.

To qualify for the Volume Reduction Credit, the property owner would need to submit their volume reduction plan to the City for review and approval. The property owner's plan must be prepared and certified by a professional qualified to submit stormwater management plans. A professional engineer registered in the State of Illinois would satisfy this requirement. The City would apply the credit after the approved volume reduction plan has been constructed and inspected by the City. Every five years, the City would consider renewal of the credit upon receipt of a report from the property owner prepared by a certified professional indicating the volume reduction stormwater management practice is functioning as designed and is being maintained properly. Credit renewal would take place after the City has reviewed and approved the report.

**4.3. Water Quality Credit (Maximum 15%)**

Properties that provide measures to improve the quality of stormwater runoff that leaves the property would be eligible to receive a Water Quality Credit. For those properties that are granted either a rate or volume reduction credit, the Water Quality Credit may be added to those credits.

**4.3.1. Water Quality / BMP Credit (Maximum 10%)**

A credit would be provided to those applicants' properties that discharge a portion or all of their impervious area runoff to structural or non-structural best management practices (BMPs). The water quality credit would be granted if the applicant can demonstrate that the BMPs are designed to provide a minimum of 75% reduction in total suspended solids (TSS), as measured on an annual basis. Engineering calculations and, if applicable, vendor specifications for manufactured BMPs shall be submitted to demonstrate the minimum 75% TSS removal efficiency of the BMPs.

The maximum amount of water quality / BMP credit that will be provided is 10%. Credit is prorated based on the fraction of the impervious surfaces on site that actually flow through the facility.

To qualify for the Water Quality Credit, the property owner would need to submit their water quality plan to the City for review and approval. The property owner's plan must be prepared and certified by a professional qualified to submit stormwater management plans. A professional engineer registered in the State of Illinois would satisfy this requirement. The City would apply the credit after the approved water quality plan has been constructed and

inspected by the City. Every five years the City would consider renewal of the credit upon receipt of a report from the property owner prepared by a certified professional indicating the water quality stormwater management practice is functioning as designed and is being maintained properly. Credit renewal would take place after the City has reviewed and approved the report.

The following sections define a variety of BMP's that would qualify for Water Quality Credits. The City is willing to consider other techniques not listed here for Water Quality Credits.

**4.3.1.1. *Vegetated swales***

Vegetated swales, or "bioswales", are landscape elements designed to remove silt and pollution from surface runoff. They consist of a swaled drainage course with gently sloped sides and filled with vegetation, compost and/or riprap. The water's flow path, along with the wide and shallow ditch, is designed to maximize the time water spends in the swale, which aids the trapping of pollutants and silt. Biological factors also contribute to the breakdown of certain pollutants. A common application is around parking lots, where substantial automotive pollution is collected by the paving and then flushed by rain. The bioswale, or other type of biofilter, wraps around the parking lot and treats the runoff before releasing it to the storm sewer.

**4.3.1.2. *Bioretention***

Bioretention is the process in which contaminants and sediment are removed from stormwater runoff. Stormwater is collected into the treatment area which consists of a grass buffer strip, sand bed, ponding area, organic layer, or mulch layer, planting soil, and plants. Runoff passes first over or through a sand bed, which slows the runoff's velocity and distributes it evenly along the length of the ponding area. Water is ponded to a depth of approximately 6 inches and gradually infiltrates into the bioretention area or is evapotranspired. Water stored in the bioretention area planting soil exfiltrates over a period of days into the underlying soils. Rain gardens are a bioretention technique.

**4.3.2. *NPDES Permit Credit (5%)***

This credit will apply only to property owners who currently are subject to either an industrial or municipal NPDES Stormwater Permit issued by the Illinois Environmental Protection Agency. This credit is conditional upon the proof of permit coverage and continuing compliance. The applicant shall submit annual site compliance inspection/audit updates to remain eligible for this credit.

This credit will be in the amount of 5% for the entire site.

**4.4. Educational Credits**

This credit is only applicable to local K-12 education institutions. National studies have shown that programs targeted at these students can be very effective at spreading the messages throughout a household. There are numerous water quality-based education programs that may be adopted by local school systems.

The City will provide a credit to educational institutions on an annual basis at a rate of \$5.00 per student for providing instruction in accordance with an approved curriculum. Education credits are based on the number of students actually participating in the education curriculum in a school year. All instruction curricula for which credit applications are to be submitted must be approved by the City, whether it is a nationally accepted program or a program written by the institution.

#### **4.5. Direct Discharge Credit (up to 50%)**

Properties that discharge directly to unincorporated areas or discharge to stormwater facilities that are not maintained by the City exert a lower demand for service on the City's stormwater program than do properties whose runoff must be accommodated by drainage system capacity, planning, and floodplain management. In recognition of that reduction in demand, the City would provide up to a 50% credit to those qualifying properties.

To receive this credit, the applicant must submit site plans for the property demonstrating which portion(s) of the parcel that would qualify for this credit.

#### **4.6. Incentives**

Incentives identical to those available for single family residential and duplex properties would be made available for non-single family residential and duplex properties that do not want to or are not able to participate in the credit program.

Non-single family residential and duplex properties would be able to choose which program to participate in (credit or incentive) but they could not participate in both.

The City would budget \$10,000 per year for these incentives. Allocation would be on a first come, first serve basis. Once the budgeted amount has been allocated, there would be no additional incentive payments for the fiscal year. Those property owners eligible for the incentive would be first on the list for reimbursement the next fiscal year.

# Stormwater Utility Fee Advisory Technical Committee Meeting

May 9, 2011

Agenda Item 4

Surveys



**Survey Form**  
City of Champaign  
Stormwater Utility Fee Advisory Committee  
Credit and Incentive Program Recommendations

**Responses:**

**1. Credit and Incentive Program Recommendation Number 1**

As part of the stormwater management program, the City:

- 11 → A. Should offer credits and incentives to customers that meet specified criteria.  
- → B. Should not offer a credits and incentives program at this time.

*(Please circle one of the above responses.)*

**2. Credit and Incentive Program Recommendation Number 2**

If the City elects to implement a stormwater utility fee, it should:

- 3 → A. Offer credits to individual residential and non-residential customers.  
4 → B. Offer credits to non-residential customers only.  
4 → C. Offer credits to non-residential customers and to residential customers when they are in subdivisions with "subdivision-wide" stormwater management devices.

*(Please circle one of the above responses.)*

**3. Credit and Incentive Program Recommendation Number 3**

If the City elects to implement a stormwater credit program, it should:

- 6 → A. Offer credits to customers who undertake activities that both meet and exceed development requirements.  
5 → B. Only offer credits to customers who undertake activities that exceed development requirements.

*(Please circle one of the above responses.)*

**4. Credit and Incentive Program Recommendation Number 4**

If the City elects to implement a stormwater credit program, it:

- 10 → A. Should offer incentives for customers who perform activities that reduce their impact on the stormwater system, such as rain barrels, rain gardens, and cisterns.  
1 → B. Should not offer incentives.

*(Please circle one of the above responses.)*

Return this survey form to Dennis Schmidt.

<b>SUMMARY OF SWUF CREDIT PROGRAMS IN ILLINOIS</b>					
	<b>Credit Program Available</b>	<b>Runoff Quantity Credit</b>	<b>Water Quality Credit</b>	<b>Education Credit</b>	<b>Direct Discharge Credit</b>
<b>Normal</b>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<b>Moline</b>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>	<i>Yes</i>
<b>Highland Park</b>	<i>Yes</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>Yes</i>
<b>Rolling Meadows</b>	<i>No</i>	-	-	-	-
<b>Rock Island</b>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>Yes</i>
<b>Morton</b>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>	<i>Yes</i>
<b>Bloomington</b>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>	<i>Yes</i>
<b>Tinley Park</b>	<i>No</i>	-	-	-	-
<b>East Moline</b>	<i>No</i>	-	-	-	-
<b>Freeport</b>	<i>No</i>	-	-	-	-
<b>Aurora</b>	<i>No</i>	-	-	-	-

## STORMWATER UTILITY FEE CREDIT PROGRAMS IN ILLINOIS

### Normal

The maximum credit that can be received for an individual property is 50% except for those who qualify for the 100% Direct Discharge Credit as described below.

Types of Credits:

*Runoff Quantity Credit – Level 1 (20% Credit) for new and existing properties which provide storm water detention for a 100-year storm event meeting these criteria:*

- 100-year recurrence interval post-development peak flow shall not exceed the 3-year recurrence interval pre-developed peak flow.
- One vertical foot of freeboard for the design (100-year) high water level.
- Emergency spillway for storms exceeding the 100-year design.

*Partial Level 1 Credit (50 year detention pond design) (10% Credit) for new and existing properties which provide storm water detention for a 50-year storm event meeting these criteria:*

- 50-year recurrence interval post-development peak flow shall not exceed the 3-year recurrence interval pre-developed peak flow.
- One vertical foot of freeboard for the design (50-year) high water level.
- Emergency spillway for storms exceeding the 50-year design.

*Runoff Quantity Credit – Level 2 (15% Credit) for properties that provide wet or dry detention facilities to address more frequent storm events meeting these criteria:*

- Provide detention volume for the runoff produced by 0.75 inches of rainfall (first flush storm) and release this volume over a period not less than twenty-four hours.
- Provide detention volume for a 2-year recurrence interval 24-hour duration rainfall event and release this volume over a period not less than 36 hours. This volume shall be determined by calculating the runoff volume from a 2-year 24-hour hydrograph as calculated using the SCS Unit Hydrograph Method.
- For storms exceeding the 2-year magnitude, provide a defined outlet to the receiving drainage facility.

\*Properties draining to public storm water detention facilities are NOT eligible for a Runoff Quantity Credit.\*

*Water Quality Credit (15% Credit) for properties that provide measures to improve the storm water quality that leaves the property:*

- 10% BMP Credit for applicants who discharge a portion or all of their parcel runoff to structural or non-structural best management practices. Must demonstrate that the BMPs are designed to provide a minimum of 75% reduction in Total Suspended Solids as measured on an annualized basis.
- 5% NPDES Compliance Credit for industrial property owners who can demonstrate ongoing compliance with their NPDES Industrial Storm Water Discharge Permit.

*Education Credit*

- Public and private elementary schools will be allowed a credit of \$2.50 per 3<sup>rd</sup> grade child each year. Schools must develop a lesson plan and teach their students about storm water

management issues. This satisfies the Town's requirement in their NPDES permit to provide a storm water quality education program to elementary school children.

Direct Discharge Credit

50% Direct Discharge Credit for developed properties within the Town of Normal that discharge their storm water directly to unincorporated areas.

100% Credit for Direct Discharge Credit applicants who discharge their storm water directly to unincorporated areas and who also hold an Industrial NPDES Stormwater Permit issued by the IEPA.

**Moline**

- Properties consisting of 100% vacant land do not have to pay stormwater utility fee.
- Properties which discharge to an approved stormwater retention system or which discharge 100% into Mississippi River or Rock River do not have to pay stormwater utility fee.
- A rate discount equal to the % you retain on your property is available with documentation provided by a P.E., topographical maps, etc.

**Highland Park**

Credits are awarded on an individual basis only to property owners whose properties do not impact the City's stormwater utility system.

**Rolling Meadows**

No credit system.

**Rock Island**

Direct Discharge Credit – 100% Direct Discharge Credit for properties which discharge all or a portion of their runoff directly to the Rock or Mississippi River.

Rate Reduction Credit – 25% Rate Reduction Credit for properties that control post-developed runoff rates for the two, ten and one-hundred year design storms to pre-development levels.

Additional Rate Reduction Credit – 10% Additional Rate Reduction Credit for properties which achieve further reduction of post-developed runoff rates for said design storms at least 20% below pre-development levels.

Additional Volume Credit – 5% Additional Volume Credit for those properties which provide at least 20% additional storage beyond what is required for the one-hundred year design storm.

Quality Credit – 10% Maximum Credit to be granted at a rate of 5% per use of approved Best Management Practices. Acceptable use of 2 or more approved BMPs will receive the maximum credit of 10%

NPC - \$200 annual credit for properties which obtain/maintain a National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit. Proof of compliance is required.

### **Morton**

No credits available for detached single family residential property.

The following credits are available to properties whose land use is other than detached single-family residential, including, but not limited to duplexes, multi-family with 3 or more units, institutional, commercial or industrial:

50% Rate Reduction Credit if no storm water runs off the site, up to and including the one hundred year design storm

40% Rate Reduction Credit for those properties that control the post-development peak rate of storm water runoff for the one hundred year design storm with a release rate less than or equal to a two year pre-developed runoff in accordance with the Village of Morton's storm water detention ordinance.

20% Rate Reduction Credit for those properties that control the post-development peak rate of storm water runoff for the fifty year design storm with a release rate less than or equal to a two year pre-developed runoff in accordance with the Village of Morton's storm water detention ordinance.

\*This credit is not intended to be extended to single-family residential properties with their own individual or subdivision detention facility as required by the Village or Morton's storm water ordinance.

\*Maximum aggregate credit for any individual property is 50% of its gross billing amount for the Storm Water Service Charge.

### **Bloomington**

50% Rate Reduction Credit is available for those properties that control the post-development peak rate of storm water runoff for the one hundred year design storm with a release rate less than or equal to a three year pre-developed runoff in accordance with the City of Bloomington's Manual of Practice for the Design of Public Improvements.

25% Rate Reduction Credit is available for those properties that control the post-development peak rate of storm water runoff for the fifty year design storm with a release rate less than or equal to a three year post-developed runoff in accordance with the City of Bloomington's Manual of Practice for the Design of Public Improvements.

These credits are created for properties whose land use is other than single family residential, such as, but not limited to, multifamily with 3 or more units, institutional, commercial, business or industrial.

Single family residential properties served by a privately maintained regional detention facility may be eligible for a Rate Reduction Credit. It is not intended that this credit be extended to Single Family Residential properties with their own individual on-site detention facility.

Any entity which directly discharges to Sugar Creek, Skunk Creek, Pheasant Creek, Goose Creek or Kickapoo Creek without flowing through any portion of the Municipal Sewer System, and is arranged in such a manner that no surface flow from said property is discharged from it without first undergoing an NPDES permitted water treatment process approved by the Director of Engineering shall be eligible for a 100% Rate Reduction Credit.

Maximum aggregate credit for any individual property is 100% of its gross billing amount for the Storm Water Service Charge.

**Tinley Park**

No credit system.

**East Moline**

No credit system.

**Freeport**

No credit system.

**Aurora**

No credit system.