



## REPORT TO CITY COUNCIL

**FROM:** Steven C. Carter, City Manager

**DATE:** March 19, 2010

**SUBJECT:** STORMWATER UTILITY FEE SS 2010-022

**A. Introduction:** The purpose of this report is twofold;

- to provide Council with information on stormwater utility fees,
- to obtain Council input on whether staff should proceed with the next implementation step for the stormwater utility fee. This would involve establishing a stormwater utility fee advisory committee and developing a preliminary expenditure, revenue, and billing plan for a City of Champaign stormwater utility fee.

**B. Recommended Action:** Direct staff to proceed with the next implementation step for the stormwater utility fee. Specifically, this would involve establishing a stormwater utility fee advisory committee and developing a preliminary expenditure, revenue, and billing plan for a City of Champaign stormwater utility fee.

**C. Prior Council Action:** The first part of the Background Section below titled "Previous Efforts" summarizes prior Council action on a stormwater utility fee.

**D. Summary:**

- The City has discussed and considered a stormwater utility fee before. Prior efforts took place between 1992 and 2002. Previous considerations centered around providing additional revenue to fund a storm sewer preventative maintenance program.
- The City's Stormwater Management Fund provides resources for stormwater improvement projects, operation, maintenance and rehabilitation activities, plus support for water quality improvements required by the City's National Pollutant Discharge Elimination System permit.
- All current revenues in the Stormwater Management Fund have been committed. The City has over \$80 million of unfunded stormwater capital needs.
- Stormwater runoff can be managed as a utility and billed as a fee. The fee is based on the concept that every property in a watershed contributes runoff. The fee amount is based on the amount of runoff the property contributes to the stormwater drainage system.
- The typical implementation steps for a stormwater utility fee are: 1) appoint a stormwater utility fee advisory committee, 2) complete a feasibility study, 3) adopt a stormwater utility fee ordinance and credit manual, 4) developing a billing system including a database of properties' contributions to rainwater runoff, and 5) provide community outreach.

- The benefits for a stormwater utility fee are: 1) the fee could provide more resources for stormwater management, 2) the fee is considered an equitable means to paying for stormwater management because charges are relative to each property's contribution to runoff, and 3) the fee is a more stable revenue source for stormwater management than many other sources including most taxes.
- Staff recommends the following next steps: 1) establish a stormwater utility fee advisory committee and 2) develop an expenditure, revenue and billing plan for a City of Champaign stormwater utility fee.
- To develop the stormwater utility fee expenditure, revenue and billing plan, staff would need the help of a consultant. The cost of the consultant is estimated in the range of \$105,000 to \$125,000.
- Staff estimates the work to complete the next step in the development of a stormwater utility fee could take ten to twelve months.

## **E. Background:**

**1. Previous Efforts.** The City has discussed and considered a stormwater utility fee before. Prior efforts took place between 1992 and 2002. Previous considerations have centered around providing additional revenue to fund a storm sewer preventative maintenance program.

**a. March 1992** – Due to concerns about drainage and flooding, the City Council established a Stormwater Management Task Force. The purpose of the task force was to develop a comprehensive surface drainage strategy. Development of this strategy was a top priority Council goal.

**b. July 1996** – The task force finished its work and summarized its findings in a report titled Stormwater Management Plan. A copy of the plan is on the City's website. The plan contains 6 objectives and 32 strategies for stormwater management. Strategy E1 of the Stormwater Management Plan states, "Establish a utility fee to be applied to all properties within the City for the purpose of funding all ongoing or annually recurring drainage system maintenance and management expenses." Since 1996, strategies listed in the Stormwater Management Plan have been accomplished. The strategies have been the basis for future City stormwater efforts.

**c. November 1996** – Staff presented to Council a Stormwater Facility Maintenance and Rehabilitation Plan. At that time, the City did not have a complete inventory of its storm sewer system, i.e. the City did not know exactly how many miles of storm sewer pipe or number of inlets or manholes were in the system. At the time, the City's stormwater maintenance was reactive in nature, i.e. storm sewers were not cleaned until they were plugged and a citizen called about the surface flooding, and storm sewers were not repaired until sink holes appeared on the ground surface.

The Stormwater Facility Maintenance and Rehabilitation Plan outlined several alternatives for inventorying the storm sewer system and providing a comprehensive storm sewer preventive maintenance program. Staff also provided information on a stormwater utility fee (Exhibit A). The revenues from the fee could be used to fund the additional cost for storm sewer maintenance.

No decision was made on the stormwater utility fee at that time. Staff was directed to inventory the storm sewer system and complete pilot storm sewer maintenance projects in order to develop better cost estimates for maintenance activities.

**d. March 1998** – Staff presented to Council an updated Stormwater Facility Maintenance and Rehabilitation Plan. The Plan incorporated the completed inventory of the City’s storm sewer system and updated cost estimates for alternatives to provide a storm sewer preventive maintenance program. Generally, Council supported a plan to clean and televise storm sewers on a 10-year cycle and fund rehabilitation needs discovered during the televising process. Council did express concerns regarding how to fund expanded storm sewer maintenance activities.

**e. November 1998** – Staff presented two methods for funding an expanded storm sewer preventive maintenance program. One method would involve funding additional maintenance activities with a stormwater utility fee. The other method scaled back the storm sewer maintenance program and funded the additional maintenance expenses by eliminating the property tax subsidy in the sanitary sewer fund, increasing sanitary sewer fees to fund all sanitary sewer costs and using the property tax revenues for storm sewer maintenance. Council generally supported the parameters of method two.

**f. April 2001** – As part of the FY02 budget preparation process, staff prepared a budget memorandum for stormwater management. The memorandum recommended a storm sewer preventive maintenance program that would clean and televise storm sewers on a 5-year cycle and provide additional funds to repair the storm sewers, inlets, and manholes that were identified with deficiencies. The memorandum also recommended funding this enhanced storm sewer maintenance program with a stormwater utility fee. Council voted against the fee and directed staff to scale back the storm sewer maintenance program.

**g. April 2002** – In a FY03 Budget Memorandum pertaining to the FY02/03 proposed budget, staff recommended providing \$988,000 annually for stormwater management. Specifically, \$125,000 of that total was dedicated for expenses associated with stormwater quality as part of the City’s National Pollutant Discharge Elimination System (NPDES) permit. The balance, \$863,000, would be used for storm sewer cleaning, televising, and repairs. The funding would be provided by eliminating the property tax subsidy in the sanitary sewer fund, increasing sanitary sewer fees and using the property tax revenue for storm sewer maintenance. Council adopted this recommendation. Increased sanitary sewer fees were phased in over a five-year period and the new stormwater funding was fully implemented in FY2006/2007.

**2. Current Stormwater Funding.** The City’s Stormwater Management Fund provides resources for stormwater improvement projects, operation, maintenance and rehabilitation activities, plus support for water quality improvements required by the City’s NPDES permit.

Table 1 provides an overview of the fund’s revenues and expenditure categories for a typical year.

Revenues		
.25 % Sales Tax		\$ 3,000,000
Property Tax		\$ 1,300,000
General Fund Transfer		\$ 600,000
Other		<u>\$ 200,000</u>
	Total	\$ 5,100,000
Expenditures		
Operating Budget		\$ 1,100,000
Recurring Projects		\$ 1,500,000
Debt Service		<u>\$ 2,500,000</u>
	Total	\$ 5,100,000

The major revenue source for the Stormwater Management Fund is the one-quarter percent sales tax that the City levies under its Home-Rule Authority. Additionally, in accordance with Council policy a portion of the City’s property tax levy and general fund dollars are transferred to the fund.

The Stormwater Management Fund expenditures provide resources for the following activities:

- Operating Budget includes all the day-to-day expenditures associated with maintaining the City’s storm sewer system. Examples are: responding to service requests, repairing an inlet or storm sewer pipe, helping a citizen solve a basement flooding or backup problem. This category includes the cost to locate City storm sewers for JULIE, expenses for the encephalitis program, and the City’s annual cost share for United States Geological Survey stream and rain gauges. All annual costs for the review, issuance, and inspection of drainage and erosion control permits are also included in this expenditure category. These permits implement City and Federal regulations that ensure appropriate drainage elevations and limit the amount of runoff into drainage creeks and the downstream waterways that they feed into.
- Recurring projects include the annual expenditures for stormwater programs. This includes all stormwater quality activities the City must complete in order to comply with its stormwater NPDES permit. It includes the annual cost to clean and televise portions of the City’s storm sewer system. The goal is to clean and televise the entire City storm sewer system on a 10-year cycle. This is currently being done entirely with contractual forces. This expenditure category also includes the annual contractual cost to repair storm sewer inlets, manholes, and pipes. When the City’s storm sewer system is being cleaned and televised, structural deficiencies are found. This annual contract hires a contractor to repair those deficiencies.

- Debt service includes the annual payments on the bonds that were sold for the Boneyard Creek channel improvements that were completed in the 1990s through Campustown (First to Sixth Streets). Debt service also includes the future annual payments for bonds sold to finance all three phases of the Boneyard Creek Second Street Reach (Scott Park, Second Street channel/detention improvements, and viaduct storm sewers), plus the storm sewer projects for John Street and Washington Street East.

**3. Unfunded Stormwater Capital Projects.** All current revenues in the Stormwater Management Fund have been committed.

The need for stormwater capital funding is significant. Stormwater master plans have been completed for the Boneyard Creek, Phinney Branch, Copper Slough, and Beaver Lake watersheds. The master plans have identified many drainage improvement needs. The capital drainage projects that were recommended in the master plans and currently unfunded are listed in Table 2.

Table 2 Watershed Master Plans Recommended Capital Projects - Unfunded		<u>Cost Estimate 2010 Dollars</u>
Boneyard Creek Master Plan		
Phase 3 – Upper Second Street (Oak-Ash to University Ave.)		\$ 3,500,000
Phase 4 – Oak-Ash Detention Basin		\$ 2,600,000
Phase 5 – North Branch (Oak-Ash to Neil St.)		\$ 3,000,000
Phase 6 – West Fork		\$ 2,500,000
Phase 7 – Relief Storm Sewers		<u>\$ 2,000,000</u>
	Subtotal	\$ 13,600,000
Phinney Branch Master Plan		
Channel Improvements		\$ 5,000,000
Copper Slough Master Plan		
Phase 1 – channel stabilization/reconstruction, detention		\$ 10,000,000
Phase 2 – channel stabilization/reconst., sewer improvements		\$ 11,300,000
Phase 3 – channel stabilization/reconst., water quality ponds		<u>\$ 6,600,000</u>
	Subtotal	\$ 27,600,000
	TOTAL	\$ 46,200,000

The Phinney Branch Master Plan is currently being updated so Table 2 does not reflect any changes in the recommended drainage needs. Staff has also assumed the cost for the recommended drainage project for Washington Street West will reduce the Copper Slough Master Plan needs by an equivalent amount.

In addition to the recommendations in the master plans, staff is also aware of other drainage needs in the City. The existing storm sewers on White Street (Prospect to Randolph), Healey Street (Prospect to Lynn to White), Lincolnshire Drive, Mayfair Road, and Maywood Drive all need to be replaced and upgraded. These projects will be very similar to size, scope and cost of the John and the Washington Street East projects. There are also needs for stormwater outlet improvements and storm sewers in the Garden Hills, Green Street between Mattis and Russell and the Balboa Road/Dover Place area. Cost estimates have not been prepared for these drainage needs. However, it is very conceivable these storm sewer projects in total could exceed \$40 million.

**4. Stormwater Utility Fee.** Stormwater runoff can be managed as a utility and billed as a fee. The fee is based on the concept that every property in a watershed contributes runoff. If there is a public drainage system in the watershed, then the properties that contribute runoff to the drainage system should support the operation, maintenance, and rehabilitation of the system. The amount of support is based on the amount of runoff the property contributes to the stormwater drainage system.

**a. Impervious Surfaces.** Water, electric, and gas meters are used to measure the level of demand that a user places on the utility. Likewise, for a stormwater utility fee, the total amount of impervious area on a property is a measure of demand a property places on a stormwater drainage system. The larger the impervious area, the more runoff produced and the more demand this property places on the stormwater drainage system.

Impervious surfaces consist of roofs, sidewalks, driveways, parking lots, and any other surface that does not allow rainfall to soak into the ground. The impervious area on a property is directly proportional to the amount of runoff a property will produce.

Figures 1 and 2 illustrate impervious areas and runoff.



Figure 1  
Residential Property  
The roof and driveway equals approximately 3,600 square feet of impervious area. Total lot area is approximately 11,000 square feet.



Figure 2  
Commercial Property  
The roof and parking equal 156,000 square feet of impervious area. Total lot area is approximately 167,000 square feet. Demand on the stormwater drainage system would be equal to 43 residential properties.

Figure 1 is a typical residential lot with a house and driveway. Impervious surface area for this residential lot calculates to 3,600 square feet. (Normal used 3,200 square feet. Rock Island used 2,800 feet.) Figure 2 is a developed commercial property with a large building and parking lot. Impervious surface for the commercial property calculates to 156,000 square feet. The commercial property would produce 43 times more runoff than the residential property, it places 43 times more demand on the stormwater drainage system and its stormwater utility fee should be 43 times higher than the residential property.

**b. Billing Methods.** Table 3 was taken from the Town of Normal, July 2005 Stormwater Utility Feasibility Study. The table lists typical billing methods for stormwater utility fees along with a description of each method plus the methods pros and cons.

**Table 3**  
**Stormwater Utility Billing Methods**

<b>Billing Method</b>	<b>Description</b>	<b>Pros</b>	<b>Cons</b>
Customer Classifications <i>Also known as: Intensity Development Factors (IDFs)</i>	Customers are billed based on the type of property they own (i.e. residential / commercial / industrial). Parcel size is often considered in determining fee.	Simplifies billing process. Zoning class often dictates how the user fees are calculated.	Large properties can be unfairly undercharged or overcharged if their impervious area varies significantly from other properties within their zoning class.
Impervious Plus Gross Area	Non-residential customers are billed for impervious surfaces <u>and</u> gross parcel area, recognizing that pervious (unpaved) areas do generate some stormwater runoff.	Fairly represents the true runoff potential for large parcels, as impervious surfaces are not the only source of stormwater runoff.	Adds complexity to the billing system – two variables (impervious area <u>and</u> gross area) required to establish fee for each parcel.
Runoff Factor / Runoff Coefficient <i>Also known as: Effective Hydraulic Area Method</i>	Runoff coefficients are calculated for individual properties to determine appropriate user fees.	Provides accurate representation of runoff potential for individual parcels.	Very labor intensive. The cost to calculate runoff coefficients for individual properties may outweigh benefits of accurate billing system.
Billing Unit (ERU)	Equivalent Residential Unit. Customers are charged a fee based on their impact on stormwater runoff relative to that of a typical residential parcel.	Equitable distribution of fees to those who impact the stormwater infrastructure. Non-residential customers charged based on actual impervious surface.	Requires measurement of impervious areas for individual non-residential parcels. Single residential rate (if chosen) may not be representative of smallest or largest residential properties.
Flat Fee	Parcel owners are charged a single fee, based on land use classification, regardless of land area or impervious surface area.	Simplest of all billing methods. Lower cost to facilitate billing process.	Low billing equity. Many property owners are significantly undercharged or overcharged relative to actual impact on stormwater runoff.

The most common billing methods are based on impervious areas. Specifically, a billing method utilizing Equivalent Residential Unit (ERU) is the type used most often.

**c. Equivalent Residential Unit (ERU).** With ERU, the impervious area for a typical residential property is determined and becomes the standard for the stormwater utility fee. The impervious area for an individual property is calculated by using the aerial photographs that have been incorporated into a municipal GIS mapping system.

The residential ERU is determined by evaluating several hundred properties. If there are significant impervious area differences among residential properties, the properties are broken down into categories and the largest group is used to determine the standard ERU.

The impervious area for each individual non-residential property is then measured. This calculated impervious area is divided by the residential impervious area standard, and this determines the ERUs for the individual non-residential property. In the example above, if a stormwater utility fee established the ERU residential standard at 3,600 square feet of impervious area than a commercial property with 156,000 square feet of impervious area would be considered to have 43 ERUs.

**d. Credits.** Typically, a stormwater utility fee will incorporate a credit program. The credit program is designed to encourage property owners to construct and maintain improvements to their properties to reduce and treat the stormwater from their property. These credits result in a percentage reduction in the stormwater utility fee. Improvements eligible for credits could include stormwater detention provided in the subdivision, on-site stormwater detention, pervious pavement, rain gardens, plantings that filter stormwater prior to it entering the drainage system, and rain barrels.

**e. Exemptions.** Most stormwater utility fees exempt the streets and sidewalks in the public right-of-way. These are impervious surfaces that are used by all property owners. Additionally, the streets are part of the stormwater drainage system, conveying stormwater downstream when the underground stormwater system is at capacity. Exemptions are also typically applied to undeveloped parcels because these parcels have no impervious surfaces.

**f. Tax Exempt Properties.** These property owners pay other utility fees (gas, water, electricity, etc.), contribute stormwater to the drainage system, and have been included in stormwater utility billing systems by other municipalities. Municipal facilities (parking lots, fire stations, public works facilities, etc.) have also been billed stormwater utility fees. With respect to the City's Sanitary Sewer Fee, the policy has been to treat tax-exempt properties (including other governmental entities) the same as taxable properties.

**g. Other Illinois Communities.** There are several communities in Illinois with stormwater utility fees. Table 4 lists the municipality, population, and annual revenues generated by the fee.

<b>Municipality</b>	<b>Population</b>	<b>Revenues</b>	<b>Per Capita</b>
Aurora	170,900	\$ 3,025,000	\$18
Bloomington	75,000	\$ 2,600,000	\$35
Highland Park	31,500	\$ 650,000	\$21
Moline	43,000	\$ 1,800,000	\$42
Morton	16,600	\$ 900,000	\$54
Normal	52,500	\$ 1,700,000	\$32
Rock Island	40,000	\$ 1,400,000	\$35
Rolling Meadows	23,300	\$ 540,000	\$23
Total	452,800	\$ 12,615,000	\$28

Evaluation of the table indicates the average annual amount per capita collected by the fee is \$28 (ranging from approximately \$54 to \$18).

The table above does not include Rantoul. Rantoul also has a stormwater utility, but it is a tax. Rantoul’s population is 12,400 and the tax generates \$542,000 (approximately \$44 per capita annually).

The City of Urbana staff has also provided information to its Council concerning a stormwater utility fee. The Urbana Council has requested more information from staff to learn more about the fee. Both Champaign and Urbana staff are sharing information and are considering options for working together if stormwater utility fees are pursued by both entities.

**5. Implementation Steps.** Summarized below are typical implementation steps for a stormwater utility fee. The steps are just a guideline. The steps can be re-ordered as needed or they can be modified, added, or deleted to meet the needs of the community.

**a. Appoint a Stormwater Utility Fee Advisory Committee.** The purpose of the group is to review and provide input on the development of the stormwater utility fee. The group would consist of nine to twelve members and would meet five to six times over a seven to nine month period of time. The goal would be to appoint an individual from each major land use. For the City of Champaign, this could mean representation from the University of Illinois/Parkland College, School District, Park District, industry, commercial, Downtown/Campustown, non-profit organizations, apartment owners, and neighborhood groups.

**b. Complete a Feasibility Study.** The objective of the study is to estimate the amount of revenue a stormwater utility fee could generate and to determine what stormwater

improvement expenditures are needed in the community. Usually, the feasibility study also evaluates how the stormwater utility fee would be billed and estimates the staff and costs that would be needed to manage the stormwater utility fee billing structure.

**c. Adopt a Stormwater Utility Fee Ordinance and Credit Manual.** This step involves all the work required to develop the billing policies, fee structure, and rate for the stormwater utility fee. It also includes identifying what property owner activities associated with reducing stormwater runoff or improving stormwater quality would be eligible for stormwater fee credits. Also, how fee credits would be calculated and applied would be determined at this implementation stage.

**d. Complete the Billing Database.** This step would be completed after Council adopts the stormwater utility fee ordinance and credit manual. This step is a major effort and a significant cost, using GIS to calculate from aerial photographs the impervious area of each parcel. To reduce the effort and associated cost, the impervious area for single family homes is calculated by using a statistically valid sampling of 100 to 200 single family properties. However, for non-single family parcels, impervious area for each parcel is calculated. For Champaign, this would mean measuring the impervious area of an estimated 5,300 parcels.

**e. Provide Community Outreach.** Even though this step is listed last, it is completed throughout the implementation process. It involves providing information to the public and educating the public on the stormwater utility fee. Specifically, how the stormwater utility fee would work, its purpose, benefits, and cost to each individual property owner. Community outreach also includes collecting public input on the stormwater utility fee during each implementation stage and incorporating that input into products that are produced.

A community would usually contract with a consultant to help with the implementation of a stormwater utility fee. The consultant would have experience with stormwater utility fees and would provide professional advice on all stages of the implementation process.

The typical time frame for implementing a stormwater utility fee is 12 to 18 months. The typical cost for a consultant ranges from \$400,000 to \$500,000.

**6. Benefits.** A stormwater utility fee could provide several benefits.

**a. Improve Stormwater Management.** The stormwater utility fee could be structured to provide additional resources for stormwater management. Table 5 provides a summary of the average cost per parcel per land use for approximately \$1,000,000 of stormwater utility fees.

Table 5  
City of Champaign  
Stormwater Utility Fee

Land Use Type	Total Acreage	“C” Factor	ERU’s	Fee Per Land Use Type	Parcels	Average Fee Per Parcel
Parks	607.82	0.05	389.63	\$6,401.59	192.00	\$33.34
Industrial/ Commercial	2,595.74	0.70	23,295.10	\$382,738.54	1,896.00	\$201.87
In-Town	273.22	0.45	1,576.27	\$25,898.10	735.00	\$35.24
Single-Family Residence	5,112.56	0.40	26,218.26	\$430,765.95	16,777.00	\$25.68
Multi-Family Residence	1,629.93	0.45	9,403.44	\$154,498.56	2,528.00	\$61.11
<b>Total</b>			<b>60,882.70</b>	<b>\$1,000,302.74</b>	<b>22,128.00</b>	
Fee per ERU based on approximately \$1,000,000 target = \$16.43						

Additional resources could mean more dollars to complete unfunded capital projects. Staff estimates there are over \$80 million of unfunded stormwater capital projects. Additional revenue could also provide a means to reduce the backlog of rehabilitation needs. When the City cleans and televises the existing storm sewer system, structural deficiencies are found that require rehabilitation. The City currently has resources budgeted for rehabilitation. However, rehabilitation needs far exceed by several million dollars available resources. Additional resources could fix existing problems in the storm sewer system sooner.

Additional resources could also allow new stormwater management programs to be started. For example, over 100 detention basins are privately maintained by homeowner or lake owner associations. Unfortunately, most of these associations are not providing adequate resources for current or future maintenance needs. A stormwater utility fee could provide resources for a program to allow the City to become more actively involved in the maintenance of these detention basins.

Another example of a new program could be a stormwater overhead sewer cost share program. This would be very similar to the sanitary sewer cost share program. The City has hundreds of homes connected by gravity to the City’s storm sewer system. These

connections were made long ago. Current City code does not allow gravity connections. When the City's storm sewer surcharges, stormwater backs up these gravity connections and flood basements. A cost share program could be implemented to help property owners disconnect the storm sewer gravity connection, install a sump pump and piping, and eliminate the backup.

**b. Equitable Means to Pay for Stormwater Management.** A stormwater utility fee is an equitable means to pay for stormwater management. The fee is based on the burden a property places on the stormwater transport system. The more burden (runoff), the higher the property owner's utility fee. The amount of burden (runoff) is directly related to the amount of impervious area on the property.

A stormwater utility fee is also equitable because it provides a means for a property owner to reduce his or her fee. If a property owner is willing to install facilities on the property to reduce runoff or improve stormwater quality, thereby reducing their burden on the stormwater system, a credit is given, lowering the property owner's stormwater utility fee.

**c. Stable Revenue Source.** Approximately 60% of the Stormwater Management Fund's current resources come from the 0.25% sales tax. Sales tax revenue fluctuates with the economy. However, some expenditures in the fund such as debt retirement for capital projects or stormwater quality expenditures required by the City's NPDES permit are fixed. When sales tax revenue in the fund is flat or down, the fund is balanced by reducing rehabilitation expenditures. This reduction causes the several million dollar backlog to grow even larger.

A stormwater utility fee would be a more stable revenue source. Once the fee is established there would be very little fluctuations in the annual revenue. A stable revenue source will become even more critical in the future if more capital projects are completed with bonding and the annual debt retirement is funded from revenues in the Stormwater Management Fund.

**7. Next Steps.** Most of the background information provided in this report on a stormwater utility fee is very generic and not specific to the City of Champaign. Staff feels before any decisions can be made, more information needs to be developed on a stormwater utility fee specific to the City of Champaign. The many options concerning a fee would need to be explored as discussed below. Additionally, more public involvement and education concerning a City stormwater utility fee is needed. Staff recommends as the next step is to appoint a citizen advisory group and develop a preliminary expenditure, revenue and billing plan for the stormwater utility fee.

**a. Stormwater Utility Fee Advisory Committee.** The group would be appointed by the City Council and consist of eight to twelve members. The goal would be to have representation on the committee from the different land use types in the City such as;

- University of Illinois
- School District
- Park District
- Non-profit organizations
- Single Family
- Multi-family/Apartments
- Commercial
- Industrial

There could be multiple representatives from a single land use. The committee's mission would be review and provide input on the stormwater utility fee. The group would be established for a 12-18 month period. It would probably meet six to nine times during that period.

**b. Expenditure, Revenue, & Bill Plan.** This plan would provide information on the feasibility of a stormwater utility fee for the City of Champaign. The advisory committee would help develop the plan by providing input and review.

There would also be a public outreach component to the plan's development. The goal would be to provide the public with information and education on the stormwater utility fee and to obtain their input on the fee. This would be accomplished with public and neighborhood meetings.

Developing this plan would require several Council Study Sessions. Council would need to provide staff with direction on numerous stormwater expenditure and revenue policy issues. Staff has not identified all policy issues at this time but some questions would be:

- What revenue sources would fund stormwater management in the future? Would it be funded solely by a stormwater utility fee or would current revenue sources (property taxes, general fund transfers, and sales taxes) still be a part of the equation?
- What role should traditional stormwater funding mechanisms such as cost share and special assessment play in future stormwater funding, if any?
- Which current stormwater expenditures should be funded by a stormwater utility fee?
- Should future stormwater expenditures be increased to include additional capital improvements and/or other needs? If so, should this expansion be funded with the stormwater utility fee?
- What incentive and/or credits would be incorporated into a stormwater utility fee?
- What type of land uses would be exempt from a stormwater utility fee?
- What rate structure would be used for a stormwater utility fee?

Staff would need a consultant to assist in the preparation of the plan. Staff has limited expertise on stormwater utility fees; a consultant can help bridge that gap and provide the resources to complete the plan in a timely fashion. Furthermore, developing a plan is an extensive effort that would be difficult for staff to accomplish along with other projects, particularly considering the "learning curve" required.

Staff estimates consultant cost for this phase of work at \$105,000 to \$125,000. It is also estimated this phase of the work would take ten to twelve months to complete once the advisory committee is appointed and the consultant is under contract.

The scope of work for the expenditure, revenue and billing plan would include the following specific items:

- **Expenditure.** A multi-year stormwater expenditure plan would be developed. The plan would identify the stormwater expenditures that would be funded by the stormwater utility fee. This could include all or a portion of the existing stormwater expenditures associated with operation, maintenance, rehabilitation and debt retirement on capital improvements. The plan would also need to include any new stormwater expenditures.
- **Revenue.** This component of the plan would calculate the impervious surface areas of different land use types in order to determine the number of billing units within the City limits. Additionally, a rate model would be developed that could estimate the revenue generation potential for varying rate scenarios. The proposed stormwater utility fees would be calculated for five to six properties in different land use categories to illustrate the fees impact.
- **Billing.** Four billing options would be evaluated:
  - contracting with organizations that currently send bills to most or all properties in Champaign, such as Illinois American Water or the Urbana-Champaign Sanitary District,
  - establishing a billing & collection system in cooperation with the City of Urbana, should it adopt a stormwater utility fee,
  - outsource billing to a private firm, and
  - setting up an in-house billing operation.

The pros and cons for each option would be identified plus the cost to implement the option. This would include an estimate of all significant one-time and recurring costs, including staffing needs for billing, customer service, collections and other staff related functions.

## **F. Alternatives:**

1. Direct staff to proceed with the next implementation step for the stormwater utility fee. This would involve establishing a stormwater utility fee advisory committee and proceeding with the development of a preliminary expenditure, revenue and billing plan for a City of Champaign stormwater utility fee.
2. Do not direct staff to proceed with the next step for the stormwater utility fee and provide further direction to staff.

## **G. Discussion of Alternatives:**

**Alternative 1** directs staff to proceed with the next implementation step for the stormwater utility fee. This would involve establishing a stormwater utility fee advisory committee and proceeding with the development of a preliminary expenditure, revenue and billing plan for a City of Champaign stormwater utility fee.

### **a. Advantages**

- Could provide additional resources so more stormwater maintenance, rehabilitation and improvement activities could be completed.
- Could provide a more equitable means to pay for stormwater management expenses.
- Could provide a stable revenue source for stormwater management activities.

### **b. Disadvantages**

- Could shift more of the cost for stormwater management to property owners who are currently paying less.
- An additional fee that property owners will have to pay could be unpopular with some property owners.
- Implementation of a stormwater utility fee has a significant implementation cost. Recommended Alternative 1 has an estimated cost of \$105,000 to \$125,000. The cost to implement a complete stormwater utility fee is estimated at \$400,000 to \$500,000.

**Alternative 2** does not direct staff to proceed with the next step for the stormwater utility fee and provide further direction to staff.

### **a. Advantages**

- Does not require the expenditure of \$105,000 to \$125,000 and those resources could be used of other stormwater management activities.
- Provides an opportunity for Council input.
- Depending on Council action, there could be other advantages.

### **b. Disadvantages**

- Difficult to identify disadvantages without knowing what Council direction could be.

**H. Community Input:** There have been several study sessions addressing drainage issues. Citizens at several of these meetings have voiced support for enacting a stormwater utility fee to help pay for needed drainage projects.

Additionally, there have been numerous neighborhood and steering committee meetings to discuss local flooding and drainage problems. Questions about a stormwater utility fee have been asked at several of the meetings. Public Works staff has discussed and provided steering committee members with stormwater utility fee information.

The John Street, Washington Street East and West Steering Committees were provided with a copy of this report. The public will have an opportunity to provide input on this issue when the report is presented to Council at the Study Session.

If Council directs staff to proceed with the recommended alternative, there would be significant public input. A stormwater utility fee advisory committee would be appointed to review and provide input on a fee. A public outreach program would be developed and implemented to provide information and to obtain input from the public on the stormwater utility fee. Also there would be several Council Study Sessions to discuss policy issues pertaining to the stormwater utility fee. The public would have an opportunity to provide input at the Study Sessions.

**I. Budget Impact:** Preparation of the Report had no budget impact. The recommended alternative would require the City to hire a consultant. Staff estimates the cost for the consultant to range from \$105,000 to \$125,000. Currently, no funds are budgeted for this effort. A budget amendment would be required prior to the approval of the consultant’s contract. Staff believes that adequate resources in the Stormwater Management Fund are available to fund the recommended alternative.

**J. Staffing Impact:** It took approximately 150 staff hours to prepare this report. Staff estimates it will take approximately 1,200 hours to implement recommended Alternative 1. The staffing impact of Alternative 1 would be lessened by the use of a consultant. It is estimated the consultant would provide approximately 600 of the 1,200 hours needed for Alternative 1. Staff will need to re-prioritize projects to provide the balance of staff hours to accomplish recommended Alternative 1.

Prepared by:

Reviewed by:

Dennis Schmidt, P.E.  
Public Works Director

Richard Schnuer  
Finance Director

Attachments: Exhibit A – “The Drainage Utility Fee: An Approach to Funding Champaign’s Stormwater Management Program” – October 9, 1996

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**THE DRAINAGE UTILITY FEE**  
**AN APPROACH TO FUNDING CHAMPAIGN'S**  
**STORMWATER MANAGEMENT PROGRAM**

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*City of Champaign*

*October 9, 1996*

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## THE DRAINAGE UTILITY FEE

### AN APPROACH TO FUNDING CHAMPAIGN'S STORMWATER MANAGEMENT PROGRAM

#### EXECUTIVE SUMMARY

- I. **Revenue Characteristics:** A drainage utility fee would meet a high number of the objectives for revenues detailed in the City's financial policies. A drainage fee, unlike taxes, would charge property owners for drainage expenses proportionate to the amount that their properties contribute to drainage problems. A drainage fee would provide a stable source of revenues, which would help diversify the City's revenue mix, resulting in a lower portion of overall revenues and sales taxes. The fee is recommended in the Stormwater Management Plan.
- II. **Rate Methods:** Municipalities have used various methods to calculate drainage utility fees. Staff recommends that the method selected by Champaign include two factors: the total area of each parcel and its impervious area. These areas should be measured rather than simply using factors such as land use to approximate the amount of impervious area. Use of more exact measures will cost more than less exact measures, but will contribute to the fee's fairness, and thus to its acceptance by the public and its ability to sustain a legal challenge.
- III. **Adjustments:** A number of circumstances exist under which the City may wish to make adjustments, either up or down, to the standard fee charged a particular property. Staff believe that the reasons for making adjustments in certain circumstances are valid. Prior to adopting a fee, the City Council should carefully study each possible adjustment, and incorporate its decisions into the fee policy.
- IV. **Estimated Revenues and Property Owners' Cost:** Staff estimate that if the rate of the fee were set at \$20 per single-family residential unit, the fee would raise \$1 million per year. As one would expect, fees would not be paid uniformly throughout the City, but would fall more heavily on highly developed areas and properties. For example, industrial and commercial properties comprise 25% of the City's area, but would pay about 50% of the fees. Properties within the Boneyard Creek basin comprise about 28% of the City's land area, but would pay about 31% of the fees, as it contains a higher proportion of impervious area than other parts of the City.
- V. **Use of the Fee to Fund the Property Owners' Share of Local Capital Projects:** Under current City policies, individual property owners are charged the majority of the cost to install local storm sewers where they do not exist. If the City established a drainage utility fee, local assessments could be collected by placing the charge as a separate line on the appropriate property owners' bills. This method of payment would be convenient for property owners, and efficient for City staff.

Staff also analyzed the impact of charging property owners in each drainage basin for the major capital projects (e.g., detention and channel improvements) in their basins. To fully pay for planned capital projects in the Phinney Branch basin, the owner of each single-family property would have to pay about \$80 per year for 20 years. Boneyard Creek basin property owners would pay about \$230 for improvements there. Staff recommends against this alternative because it is inconsistent with the Stormwater Management Plan, which states that the City should pay for major capital projects by continuing to dedicate one quarter of the homerule sales tax for this purpose.

**VI. Implementation:** The major steps to implement a drainage utility fee are as follows:

1. Gather and analyze data to resolve policy and technical issues, and to refine revenue estimates.
2. Gather data on each property necessary for billing purposes.
3. Develop the billing system. While the City's new financial management software can accommodate a drainage utility fee, much work must be performed before bills can go out.
4. Conduct an extensive public information program on the fee, and more importantly, on how the revenues will enable the City to improve stormwater management services.
5. Adopt an ordinance implementing the fee.
6. Respond to property owners' questions and requests for fee reviews, once bills go out.

## THE DRAINAGE UTILITY FEE

### AN APPROACH TO FUNDING CHAMPAIGN'S STORMWATER MANAGEMENT PROGRAM

#### Section 1 - Introduction

This report examines a drainage utility fee to fund stormwater system expenses. Increasing numbers of jurisdictions are using drainage fees nationwide, and the fee is a recommended component of the City's Stormwater Management Plan.

This report provides information on:

- o how a drainage fee works
- o major issues concerning the fee
- o revenues produced
- o the cost to property owners.

This report attempts to provide sufficient information and analysis for making informed judgments as to whether a fee would benefit the City. To conduct the analysis, staff used data on the number of properties in the City by land use type, and the area of the City by land use type. Staff used data which was already available or which could be produced fairly easily, believing that it was sufficiently accurate for sound policy decisions. This avoided a significant cost to gather more detailed data prior to a decision to implement a fee.

This approach contrasts with many cities, which have hired private engineering firms with expertise in drainage utility fees to conduct feasibility studies. These studies generally included sampling actual parcels in the jurisdictions to allow more accurate analysis of the impact of a fee. These feasibility studies have cost between \$20,000 and \$40,000.

Staff believes that the data and analysis presented in this report is sufficient for policy purposes. However, if the City implements a drainage utility fee, actual charges and revenues will vary to some extent from the estimates presented in this report. Should the City decide to implement a fee, as a first step the City should undertake more sophisticated data gathering and analysis. The City Council may wish to defer final decisions on some specific aspects of the fee until the study is completed.

#### Section 2 - Objectives of a Drainage Utility Fee

A drainage utility fee can be set up in a number of ways. To the extent possible, a fee should achieve as many of the objectives below as possible, although some objectives may conflict with others. The following discussion includes objectives which Council has adopted in its financial policies for all revenue sources:

- o **Diversification.** The City should obtain its revenues from a variety of sources, to help ensure revenue stability. A drainage fee would meet this criterion well, since the City relies highly

on sales taxes and receives a relatively low portion of its revenues from fees.

- o **Dedicated Source of Funds.** One of the essential distinctions of a fee, as opposed to a tax, is that the revenues are dedicated to fund the services for which the fee-payers are charged.
- o **Fairness.** Fairness has several aspects, as follows:

Relationship between user benefit and user charge: The fee would be structured to create a relationship between the amount property owners pay and the services they receive (or the burden that they put on the infrastructure system). The relationship does not have to be perfect. For example, the City's sanitary sewer fee is based upon water usage. However, to a certain extent, the City's costs do not vary with the amount of sewage discharged to the City's sewer pipes. Two adjacent properties generally discharge their sewage to the same City sanitary sewer. The City's cost to maintain the pipe is not measurably affected if one property uses 25% more water than the property next to it. Using a private sector example, most gas stations charge the same amount for an oil change, whether a car requires 3, 4, or 5 quarts of oil. In summary, the relationship between costs and benefits must be present, but need not be perfect.

Relationship between user charge and burden placed on drainage system: The drainage utility fee, unlike some fees, is not strictly benefit-based in the traditional sense. Take, for example, the property at the top of a hill. One could argue that it receives no benefit from the stormwater management system, because rain flows from the property regardless of the effectiveness of the stormwater management system.

In this instance, the property is charged not so much for the benefit that it receives, but for the burden that it places on the stormwater management system. Due to the presence of a stormwater management system, the property can displace its water without damaging other properties. Thus, the property at the top of the hill is receiving a service.

Accurate data: The data used for billing should be reasonably accurate, while taking into account the trade-off between accuracy and administrative costs.

Relationship between user charge and ability to pay: As discussed above, drainage fees are set up so that properties which shed more water generally pay a higher fee. However, for practical purposes, single-family properties are usually charged a flat fee. Therefore, within this billing class (which comprises most properties in the City), a drainage utility fee would be regressive. That is, lower-income households would pay a larger portion of their income to the fee than would higher income households. Some people perceive this as less fair than a revenue which is paid proportionally to household income.

Fees are usually more regressive than taxes such as property taxes. In fact, most revenue sources available to the City are regressive, since the City does not have the authority to levy more proportional taxes such as income taxes. Therefore, the regressiveness of the drainage fee may not be significantly different than most City revenues.

Payment by tax-exempt properties: Most drainage fees treat tax-exempt properties like any other. This is perceived as fair, because tax-exempt properties place a burden on the drainage system, but would be exempt from most general forms of taxation.

Summary: The fairness of the drainage fee is ultimately a value judgement which each person must make. Nationally, local governments are using more user fees, as opposed to general taxation, because citizens view user fees as more fair.

- o **Legally Defensible.** Drainage utility fees have not been used in Illinois, and therefore the City may experience a legal challenge to a fee. The City will base the legality of its fee on three essential components, as follows:
  - The City must have the authority to impose the fee. Although that authority is not specifically stated in the Illinois statutes, the City has the authority to impose such a fee under its home rule powers.
  - Revenues from the drainage fee must be dedicated to drainage services.
  - As discussed above, the fee should be structured so that there is a relationship between the amount paid by a given property, and the burden which the property places on the drainage system.
- o **Community Acceptability.** Fairness and dedication of revenues to their intended purpose will help with community acceptance. Also the fee should be as simple as possible, given other considerations, so it can be easily understood by the public.
- o **Flexible.** The rate structure for the fee should be established so that it can be changed as conditions change, and so that the amount of the fee can be changed as expenses increase or decrease over time.
- o **Efficiency.** The cost to implement and manage the fee should be reasonable in relation to the revenues received. As discussed below, a drainage fee would be relatively costly to implement, but ongoing administrative costs would be reasonable. Another factor of efficiency is that a revenue source should not distort the free market by altering private economic decisions. A drainage fee would meet this criterion well if the fee's structure and basis corresponded with the City's stormwater management costs.
- o **Competitiveness.** This refers to the City's revenue burden compared to neighboring communities. Surrounding communities do not have a drainage fee, so the fee may not rate as well on this criterion.

## **Section 3 - How the Fee Would be Assessed**

### Section 3.1 - Introduction

This section of the report discusses the basic method for developing a City-wide fee. Related issues such as fee adjustments and charges for local improvements will be discussed later in this report.

### Section 3.2 - Background

The concept of a drainage utility fee is that each property's charge is based on the burden which it places on the jurisdiction's stormwater management system. Unlike many other fees, however, it is not feasible to directly measure this burden for each parcel in the City. Municipalities across the country have used varying methods to approximate the burden placed by each parcel on the stormwater system. The variations among the methods do not involve just technical distinctions, but also involve policy decisions concerning what the entity believes is fair, and what the entity is trying to achieve in its stormwater management system and utility fee.

Almost all systems have some common elements, however. Single family homes are not individually measured, but are sampled to derive an average. This average is referred to as an ERU, equivalent residential unit. The billing system is based on ERUs. The entity would set a rate such as \$30 per ERU per year.

All other properties are measured against this ERU. So, for example, a commercial property having the same drainage characteristics as the average single-family residence would have one ERU, and would be charged the same amount. A commercial property having the same drainage characteristics as two single-family residences would be considered two ERUs, and would pay twice as much, which would be \$60 if the rate were \$30 per ERU.

To establish the equivalent residential unit and the number of ERUs for all properties, many methods have been used. However, they can be summarized into the alternatives listed below.

### Section 3.3 - Alternative Fee Methods

1. impervious area
2. total land area and percent impervious
3. total land area and land use

### Section 3.4 - Discussion of Alternative Fee Methods

Alternative 1: Impervious area method - Under this method, the fee is based upon the amount of hardened surface on each parcel. Hardened surfaces generally consist of improvements such as buildings and parking. To establish a fee based upon impervious area, the City would first conduct a statistically valid sampling of the single family residences in the City to determine their average amount of impervious area. This amount of impervious area would then be considered one ERU. All single family residential properties (about 16,100 in Champaign) would be charged one ERU.

Based upon the data, the City may determine that single-family residences differ quite a bit in the amount of impervious area. In that case, the City may use two different billing classes for single family properties. The first class, which would be considered one ERU, would be all properties under a certain figure such as 3,000 square feet of impervious area. Single family residences with a greater amount of impervious area would be charged a higher rate, such as 1.25 ERU's. This rate would be set according to the amount of their average impervious area compared to the first class of residences.

The next step would be to measure the impervious area on each of the remaining parcels in the City, numbering about 10,000. This is achieved by taking aerial photographs, digitizing the outlines of the impervious surfaces into a computer system, and calculating the impervious areas on the computer.

This method tends to result in higher fees for highly-developed properties, and lower fees for relatively undeveloped properties, as compared to the other methods. Some cities which use this method charge a special rate to areas which are completely or mostly undeveloped, such as open park land. The logic is that those areas contribute to drainage needs but would pay virtually no fee under this method. The special rate is based on a study which would estimate the amount of runoff from open space, as compared to the equivalent residential unit.

This method has several advantages. Since it is based on a single factor, property owners may understand it better than other methods. It is based on a method which the City can measure precisely. For those reasons, property owners may view it as more fair than other methods. The method also provides useful information for stormwater management and other engineering and planning purposes.

The method has some possible disadvantages. An impervious surface releases its water to the drainage system more quickly than a pervious surface. Therefore, basing a fee on only impervious surfaces might be most relevant if the revenues are used for flood control projects as opposed to routine maintenance and administration.

Alternative 2: Total Land Area and Percent Impervious Method. A second method for assessing a fee is to base the charges on the total land area, and the ratio of impervious area to total area. The rationale for this method is that even undeveloped land sheds a considerable amount of water, placing a burden on the stormwater management system. To implement this method, jurisdictions can measure all of the pervious and impervious area for each parcel, using the techniques described above. However, to reduce costs it is possible to use techniques which approximate the ratio of impervious area to total area.

Under this method, single family residential units are typically sampled as described under the first method to establish the basic ERU. The ERU would be based upon the total size of the typical single family residential parcel and the proportion of impervious area. For example, a study might determine the typical Champaign single-family property is about 8,500 square feet, with 2,400 square feet of impervious area, or 28%. This would be one ERU.

The City would then determine total size and percent impervious area for each non-residential property. The sizes of properties in the City can be determined from existing computerized maps. The City could use one of two techniques to determine the percentage of impervious area. The first technique is exactly the same as before; taking aerial photographs and using computers to calculate the area.

The second technique is less precise than the first, but would cost less to implement. With the second procedure, the City would not make exact calculations of impervious area. Rather, each property would be put into a broad category, such as 0% to 10% impervious, 10% to 25%, etc. Staff would initially determine the factor from the property's land use and staff knowledge of the property. Staff could then conduct a "drive-by" to determine whether the category appeared reasonable. If not, the property's area (and impervious area) could be measured.

Basing a fee on total area better represents the water flowing from a property at any time, not just during a peak rain event. Therefore, basing the fee on total land area (and some factor to represent the amount of impervious area) may be most appropriate if revenues from the fee are used to maintain and rehabilitate the stormwater management system, as opposed to constructing flood control facilities.

If the City used this method, and measured the impervious area exactly, its cost, advantages, and disadvantages would be very similar to the first alternative. The only issue is the extent to which the City wants to include green space as a component of the rate. Under Alternative 1, which looks only at impervious areas, the following two parcels would pay the same fee:

- o a 50,000 square-foot commercial property with 25,000 feet of pavement and buildings
- o a 25,000 square-foot commercial property which is completely paved or built over

Under methods which are based on total land area (alternatives 2 and 3), the 50,000 square foot parcel would pay more than the 25,000 square foot parcel. (The difference might not be great, as a percent of the fee.) Under Alternative 1, which looks at only the impervious area, green space would pay no fee, with the possible exception of large spaces.

If the City implemented Alternative 2 without exactly measuring impervious area, it would have the advantage of costing less to implement than Alternative 1. This option attempts to strike a balance between perceived fairness and implementation cost. The fee would be based fairly closely on each property's impervious area, within the broad categories, but not exactly. Whether the cost savings is worth the perceived reduction in fairness is a value judgement.

Alternative 3: Total Land Area and Land Use. This method is similar to the second method, in that it uses the total area of the property, which can be determined from existing maps. The fee is based on the total area of the property, plus a factor for its land use. Land use correlates to the intensity of the parcel's development, and therefore represents the

impervious area. In reality, however, the correlation is not necessarily strong. For example, picture a commercial property which is entirely paved, and a property the same size with substantial green space. Under this alternative the properties would pay the same fee, despite having different drainage characteristics.

The advantage of this method is that it is less costly than either of the other two. The City has data on land use, and the cost to verify land use is not as great as the cost to measure impervious area. The size of most properties can be determined from existing maps.

The disadvantage is that the method may be perceived as less fair than other methods due to the lower correlation between each property's fee and its run-off characteristics. Again, this tradeoff is a value judgement. However, the issue of fairness could become a practical issue in addition to an ethical issue. A perception of unfairness could lead to a legal challenge of the fee, which could delay its implementation, or in the extreme, cause refunding of the fee. Of course, the fee could be challenged in any event, but the chances of a court finding the fee valid are better with more precise rate methods.

### Section 3.5 - Implementation Cost

Implementing a drainage fee will require considerable time and expertise. Staff do not currently have expertise in this area, nor the time to implement the fee without deferring other major projects. Therefore, staff assume that the City would want to accomplish most of the work using a private engineering firm with expertise in drainage fees. Some of the fieldwork could be performed by temporary staff under the direction of regular City staff.

Based on discussions with engineering firms, staff estimate an implementation cost of \$200,000 to \$300,000 using Alternative 1, the impervious area method. The cost breaks down as follows:

- \$65,000 - \$85,000 - gather information and data
- \$25,000 - \$30,000 - analyze data
- \$50,000 - \$110,000 - examine adjustments and other rate issues
- \$25,000 - \$30,000 - match data to City property records
- \$10,000 - \$15,000 - develop reports and present to City Council and staff
- \$25,000 - \$30,000 - public information program (discussed below)

The cost to examine adjustments and other rate issues, estimated at \$50,000 to \$110,000, varies quite a bit from one entity to another. It depends upon the factual circumstances and the extent to which the City wishes to consider these matters. Due to the many technical issues surrounding the fee, staff cannot define implementation cost closely without entering into discussions with engineering firms which have performed this work in the past. Implementation costs would fall at the low end of this cost range, if the City implemented the rate method described in Alternative 3, or used Alternative 2 without measuring the impervious areas.

Some cities have chosen to implement drainage fees using a lower-cost rate method, and then making the rate method more precise over time. This option has two advantages: the fee can be implemented more quickly, and more revenues can be devoted to improving drainage systems in the early years of the fee. The disadvantage is that the fee would be less fair during the period that less precise rate methods were used. Also, changing the rate methods might be confusing to property owners. Staff could develop a more precise estimate of implementation costs if Council directed staff to proceed.

Staff has determined that the City's new financial management system can accommodate a drainage fee. Some minor software modifications and/or hardware may be required, depending upon policy and procedural decisions on how to implement the fee. Any additional costs to implement the billing system should be relatively small.

Staff recommends a full public information program to inform property owners of the reasons for the fee, should Council decide to implement it. While staff and Council Members would present the program, the City should use a professional firm to develop educational materials such as brochures, audio-visual materials for a live presentation, etc. Staff has not researched the cost of a public information program, but it could bring total implementation costs to about \$300,000.

### Section 3.6 - Recommended Action

Staff recommends that Council use a rate method which assesses the fee on a measurable unit, not merely a descriptive unit such as "land use". Measurable units correlate better with properties' drainage characteristics. Staff also recommends that the rate method reflect the runoff associated with non-impervious area.

Alternative 2 fits these criteria most closely, as long as the City uses a precise method to factor impervious area. Alternative 1 would also meet these criteria, as long as the City used a special rate for large open spaces.

## **Section 4 - Fee Adjustments**

### Section 4.1 - Introduction

The City may wish to provide for fee adjustments in a number of circumstances. Some of these issues are common to all drainage fees, and some are more unique to Champaign.

### Section 4.2 - Alternatives

- 1: Provide adjustments in certain circumstances.
- 2: Provide no adjustments.

## Section 4.3 - Discussion of Alternatives

### Section 4.31 - General

Alternative 1 would provide adjustments in certain instances. The areas where the City may wish to provide adjustments are discussed below. The City may identify additional areas for possible adjustments as part of the implementation phase of the fee.

The rationale behind fee adjustments is to make the fee more fair. The concept of a drainage fee is to charge benefiting properties. However, many properties do not fully benefit from the fee, and others receive drainage services which are not generally available to other parcels. In cases such as these, many drainage fee systems provide adjustments, up or down, to those properties' bills. Adjustments could make a drainage fee more defensible from a legal challenge.

The concept of a fee adjustment is similar to the City's practice with the sanitary sewer fee. The City does not charge sanitary sewer fees to properties which do not directly benefit from the City's system. Some properties connect directly to the UCSD's sewers, and other properties have private septic systems.

For drainage fees, however, the situation is not as cut and dried. For example, one might argue that a parcel on a river does not benefit from the drainage system, because its water drains directly to the river. (This assumes that the drainage fee does not help maintain the river.) However, the drainage system helps the transportation system function. This allows users of the parcel to travel, and allows emergency services vehicles to access the parcel. For this reason, drainage utility fee systems rarely fully exempt any parcel, but may provide for a fee decrease in certain circumstances. It may be appropriate to increase fees in other circumstances, where the City provides drainage services to some parcels which are not generally available to all parcels.

Some of the situations in which the City may wish to reduce or increase fees as described below.

### Section 4.32 - Fee Reductions for Private Detention

Some jurisdictions give credits (reduced charges) to properties with private detention facilities. The rationale is that these facilities significantly reduce the peak load volumes of water dispersed to the stormwater system during rainfalls. In fact, under the City's current development ordinance, the rate of water discharged by a land area is actually reduced after that area develops, compared to when the area was undeveloped. Therefore, private detention facilities significantly reduce the City's expenses for flood prevention, such as channel improvements and detention. One jurisdiction provides detention credits only when the property owner agrees to a maintenance program for the detention facility, and passes a City inspection.

#### Section 4.33 - Fee Increases for Maintenance of City Detention Facilities

Generally, the City does not construct and maintain detention facilities. However, the City has done so in recent years, and is planning additional facilities. The City could place an additional drainage charge on properties which are served by City detention facilities. At the present time, those charges would probably be rather modest, since the facilities were constructed recently. However, fees could become more significant if they were to cover the cost of major rehabilitation work, which will eventually be required.

#### Section 4.34 - Fee Reductions for Drainage District Services

The City could also reduce the fee for properties which receive services from (and pay fees to) drainage districts. The districts provide some services to their residents, particularly channel maintenance, which the City does not have to provide. Therefore, the City might reduce the fees for properties served by drainage districts.

As a practical matter, adjustments for drainage district fees would affect a minority of City residents. The City has adopted a policy of assuming responsibility for all drainage services within the City, over time. In fact, with the disconnection of properties in the City from the Phinney Branch Drainage District, only a third of City properties will lie within the jurisdiction of drainage districts.

Similar to the above discussion, the City might also wish to consider reduced fees for properties which are not within the legal boundaries of drainage districts, but which drain to facilities outside the City, maintained by drainage districts or another city.

#### Section 4.35 - Fee Reductions for Properties Without Local Storm Sewers

Most of the City's drainage operating expenses cover maintenance and rehabilitation of storm sewers. However, not all properties are served directly by storm sewers. Therefore, the City might consider reducing fees for these properties.

Some cities have long-term plans to install storm sewers where they do not exist, perhaps using revenues from a drainage fee. In many of those cases, the jurisdictions do not reduce fees for properties without storm sewers, since the jurisdictions will provide a consistent level of service over time.

The City of Champaign, on the other hand, has no strategy for constructing local storm sewers in already-developed but unsewered areas. Under the City's Infrastructure Cost-Sharing Policies, the City will contribute to the cost of local storm sewers, but residents pay the majority of the cost. The City will not force residents to install local storm sewers. Therefore, the City might wish to reduce the fee in unsewered areas.

#### Section 4.36 - Fee Reductions for University Properties Which Do Not Drain to City Drainage Facilities

This issue is similar to the issue of properties which are served by drainage districts. Some properties owned by the University of Illinois drain to streets and storm sewers which are owned and maintained by the University. The University's storm sewers may flow into a section of the Boneyard Creek which is maintained by the University, or to land outside of the City. Since the City is not providing the extent of services to those properties which the City generally provides, the City may wish to reduce the fee for those properties.

The University also presents a unique situation in another way. The University's drainage facilities handle runoff from properties owned by private parties. As a result the City's costs are reduced, which may warrant a reduction in the University's fees.

Alternative 2: A fee with no adjustments would be less complex, which provides two practical advantages. First, administrative costs would be less. As discussed above, studies necessary to fully examine adjustments could cost \$100,000. A fee with many adjustments is more difficult and costly to administer on an ongoing basis. The billing system would require much more information. Staff time would be required to review requests by property owners for adjustments, which could be numerous. Second, a fee with many adjustments could be difficult for property owners to understand. This could make public acceptance of the fee more difficult, and some people could perceive it as less fair because they don't understand it.

Aside from the above disadvantages, Council may believe that adjustments are not appropriate for several policy reasons. With respect to drainage districts, the City plans to provide more services than the drainage districts provide to their residents. In the City, the districts provide only channel maintenance. The City, on the other hand, will maintain and rehabilitate storm sewers, outlets and channels, except where the districts maintain channels. The City's Public Works Department estimates that the cost for channel maintenance will be less than 20% of its overall cost to maintain and rehabilitate stormwater management facilities. (This is aside from the large capital projects which the City plans to finance with sales tax revenues.) Therefore, any fee reduction would be fairly small.

Similarly, the City's costs to maintain public detention basins is currently small, particularly as a percent of expenditures for drainage management. Therefore, any fee adjustment might be too small to bother with from a practical standpoint.

A decision on adjustments does not have to be an "either-or" issue. Council could adopt a general policy of considering adjustments. Then, Council would study each type of adjustment and determine whether to grant each type prior to final adoption of the fee.

#### Section 4.4 - Budget and Staffing Impact

Staff has not attempted to assess the impact of a fee adjustment policy at this time, but could do so as part of the implementation phase of the fee. The importance of the issue depends upon Council's approach to the fee, should Council adopt it. Council could set the rate of the fee to cover certain services. In that case, adjustments would shift costs among various

properties, rather than reduce overall revenues. On the other hand, if Council established a policy that the fee should not exceed a given amount for the average (unadjusted) property (a rate "cap"), then adjustments would probably reduce overall revenues.

#### Section 4.5 - Recommended Action

Staff recommends that the fee system provide adjustments (both increases and decreases) for properties which receive significantly different services than the City provides generally. The City should base its decision on the services it provides with revenues from the fee, not other revenues.

The City should determine the extent of adjustments following additional study as part of the implementation of the drainage fee. The decision should acknowledge that no fee can be perfectly fair, and that an attempt to make the fee appear perfectly fair can also make it extremely complex.

#### **Section 5 - Should the City charge for the stormwater burden imposed by streets?**

##### Section 5.1 - Introduction

The vast majority of jurisdictions do not charge drainage fees to public rights-of-way. A few jurisdictions charge public rights-of-way like other property. A few others charge abutting property owners for the cost to drain the rights-of-way.

##### Section 5.2 - Alternatives

1. Treat streets and other rights-of-way like standard properties.
2. Do not assess fees on rights-of-way.

##### Section 5.3 - Discussion of Alternatives

Alternative 1 would view streets like other properties. The City, State, and University would pay drainage utility fees for the burden which their streets place on the stormwater management system. The fees would be significant (perhaps 40% of total fees), because streets and the adjoining rights-of-way comprise a large percentage of the City's land area, and because streets are impervious.

Alternative 2 views streets as part of the drainage management system. Streets have gutters or ditches which convey stormwater, and in peak rainfall periods the water is carried along the street itself.

Another argument for this alternative is that, in almost all cases, streets were constructed to support abutting or nearby development. Therefore, the cost to drain the streets should be placed on the properties rather than on the public sector.

##### Section 5.4 - Budget and Staffing Impact

If the City charged drainage fees to rights of ways, the City would have to pay 30 - 40% of total fees. However, the City could use funds currently targeted for major capital projects (sales tax revenues) to pay its drainage fees. The City could then use some drainage revenues to accomplish the capital projects.

## Section 5.5 - Recommended Action

Staff recommends the City not charge stormwater fees for rights-of-way, because streets are an important part of the stormwater management system. The City should pay fees for its other properties, such as parking lots. Charging abutting property owners for the drainage costs associated with specific streets would be inconsistent with the City's Infrastructure Cost-sharing policies, which state that maintenance costs will not be assessed to specific properties.

## **Section 6 - Treatment of Tax-exempt Parcels**

### Section 6.1 - Introduction

Some entities exempt tax-exempt parcels from drainage fees. (This discussion concerns standard parcels as opposed to rights-of-way, which were discussed above.)

### Section 6.2 - Alternatives

1. Exempt public and/or private tax-exempt parcels.
2. Do not exempt such parcels.

### Section 6.3 - Discussion of Alternatives

Alternative 1: Some entities exempt tax-exempt parcels from their drainage fees. Sometimes this has been done so as not to put a new cost on other government entities, particularly where the governmental entities have had fiscal difficulties. In some instances, exempting some parcels has helped gain public acceptance of the drainage fee.

Alternative 2: Under this alternative, the fee would be charged to all parcels. This would include governmental entities, and tax-exempt private properties such as schools and churches. The City would pay the fee for its parcels such as buildings and parking lots. Charging all parcels seems more consistent with the concept of a fee, and with the financial policies adopted by the City Council.

Charging all properties would also be consistent with the City's policy regarding the sanitary sewer fee. The sanitary sewer fee is charged to all properties which use the sanitary sewer system. The fee is charged without consideration of the use of the property, whether by individual homeowners, private businesses, public institutions, non-profit organizations, or religious organizations.

### Section 6.4 - Budget and Staffing Impact

Exempting certain properties would mean that revenues would be lower, or fees from paying properties would be higher to make up the loss. Staff has not examined all tax-exempt parcels in the City, but the University of Illinois has provided the City data on its parcels. These comprise about 5% of the City's land area, but are more highly-developed than most land areas in the City. Therefore, staff estimated the University's fees at about 7.0% of total fees, or \$70,000 on revenues of \$1 million. (This estimate includes no fee reduction for drainage services which the University provides to its properties and other properties.) Exempting all public and nonprofit parcels would significantly increase the revenue loss.

## Section 6.5 - Recommended Action

Staff recommends that the City charge all parcels, regardless of the nature of the owner or the parcel's tax status.

## **Section 7. Projected Revenues and Impact on Property Owners**

### Section 7.1 - Introduction

As discussed above, implementing a drainage utility fee will require considerable effort to gather and analyze data which is not cost-effective for an initial study such as this. Staff estimated revenues using the method described in Alternative 3 above. Staff analyzed the number of parcels in the City, their total size and zoning classifications. For simplicity in data analysis, the zoning classifications were combined into five land use categories which characterize the intensity of development of the parcels. For example, parks are relatively undeveloped, single-family properties are moderately developed, and commercial properties are generally highly developed. Each land use category was assigned a figure, called a "C factor", which represents the amount of rainwater which runs off typical properties in the categories.

Staff believes that these estimation methods provide reasonable cost estimates for planning purposes, but the actual revenues and charges for a fee, if implemented, will vary from these estimates. This variance could be reduced with a feasibility study conducted by an engineering firm with expertise in drainage utility fees.

### Section 7.2 - Overall Revenues

Staff estimates that a fee of \$20 for each "Equivalent Residential Unit" (ERU) would raise revenues of about \$1 million per year. As discussed above, a single-family residence would generally pay 1 ERU. The data used to make this calculation is shown on Table 1.

Table 2 shows the fees which would be paid by owners of properties in the various land use categories. This shows that charges are weighted toward owners of more highly-developed properties, since they have more impervious area. For example, while commercial and industrial land uses comprise only 25% of the City's total land area, they would pay almost 40% of the total fee.

Table 3 shows the fees which would be paid by property owners in various drainage basins. This table shows that property owners in drainage basins with more intensively-developed land would pay proportionally more than those in basins with less-developed land. For example, the Boneyard drainage district comprises 28% of the City's land area, but 31% of the projected fees.

### Section 7.3 - Individual fees

While the City is interested in overall revenues from the fee, residents are more interested in the amount that they would pay. Table 1 shows the average charge for parcels in each land use category. However, aside from single-family properties, this data is not very relevant, due to the wide variance among the properties in each category. To say that the average industrial/commercial parcel will pay \$87 does not mean very much, when many small commercial properties may pay only 2 ERUs, or about \$40, while a large grocery or discount store might pay several thousand dollars each year.

To present a better picture of the fees which would be paid by various types of properties, staff estimated the fees for specific properties. Staff caution that the numbers presented here may vary significantly from the actual fees which would be charged to these properties. The estimates in this report are reasonably accurate when averaged for all of the City's parcels, but become less accurate when presented for specific parcels.

The examples of estimated charges to specific properties are presented on Table 4. (Staff contacted the owners of these properties, who gave permission for the properties to be listed in this report, and to be examined if necessary.)

## **Section 8 - Using the Fee to Fund Property Owners' Share of Local Capital Projects**

### Section 8.1 - Introduction

The Stormwater Management Plan states that the drainage utility fee could also be used as a mechanism to fund local improvements. The fee could be used for two types of local improvements: neighborhood improvements and basin-wide improvements.

### Section 8.2 - Alternatives

1. Use the fee to pay for property owners' share of local projects.
2. Do not use the fee in this way.

### Section 8.3 - Discussion of Alternatives - Alternative 1

#### Section 8.31 - Neighborhood Improvements

The City's cost-sharing policies for infrastructure improvements state that individual property owners should pay 75% of the cost to install storm sewers where they do not exist. Although the overall cost for such projects can be significant, the cost for individual parcels can be more reasonable. For example, the City has planned a major stormwater project in the northwest part of the City called the Washington Street Storm Drainage Basin Project. In 1991 the total cost was estimated at about \$3.3 million, with the property owner share at \$2.5 million. Using the methods recommended above, staff estimate that each residential property would pay about \$900, or \$120 per year for ten years including interest. Of course, most non-residential properties would pay a higher amount.

The City's current methods for assessing such costs include a special service area tax or a special assessment charge. Both processes are rather cumbersome, and require the City to send out (and the property owner to receive) a separate bill. It would be relatively easy for the City to use a drainage utility fee as a mechanism to bill properties for neighborhood stormwater improvements. If the ordinance which adopted the drainage utility fee provided for special fees for local improvements, the City would not have to go through the complex legal mechanisms required to bill property owners for a special assessment or special service area. Residents would probably appreciate having one comprehensive bill which showed all of the charges for stormwater management fees. Fees for localized improvements would be shown as a separate line on the bill, so residents would be aware of the charges.

## Section 8.32 - Basin-specific Improvements

A drainage utility fee could also be used as a means to assess property owners in a particular drainage basin for a portion of the cost for major capital improvements in the basin, such as flood control projects.

The rationale for charging these expenses to property owners within each particular basin are two-fold. First, these charges would provide additional revenues, which would allow the facilities to be constructed more quickly. Second, it may be fair to assess the cost of the facilities to the property owners in the drainage basin, since those properties either benefit from the improvements and/or place the stormwater burden on the facilities of the basin.

## Alternative 2: Section 8.33 - Neighborhood Improvements

There appear to be few disadvantages to using the drainage fee to charge property owners their share of neighborhood improvements. One concern might be that adding a second item to the bill could make it confusing, making public acceptance of the overall fee concept more difficult.

Several policy concerns can be raised regarding the concept of charging basin-specific fees to the properties in each specific basin. First, one of the major complaints concerning flooding is its impact on the transportation system. Major streets are used by property owners outside the basin as much as by property owners within the basin. Second, the City has already designated a revenue source (sales taxes) for major flood prevention projects. Third, the City's major expenses for flood control will be in the Boneyard basin. This will particularly benefit the campustown area, which is the City's major employment center and one of its major retail centers. Therefore, improved stormwater management in that part of the City benefits most residents of the City. For these reasons, the City's infrastructure cost-sharing policies state that the cost of major stormwater improvements in developed areas should be born by the City as a whole, as opposed to particular property owners.

A basin-specific fee might encourage private fiscal divestiture in inner City areas. The most costly projects lie in more highly developed areas, and generally in older areas as well. Some of these areas have experienced divestiture, and the City wishes to encourage investment in these areas.

Also, not all properties in a drainage basin will benefit from the improvements or create the need for the improvements. This is particularly true in the Phinney Branch drainage district, where newer subdivisions have detention facilities. The City's planned flood control projects are necessitated by water runoff from older sections of the drainage basin which have no detention. Residents who have provided their own detention may believe it unfair to pay a fee for detention and channel improvements which are necessitated by other properties. If the City adopted basin-specific fees for flood control projects, credits for detention might be appropriate.

## Section 8.4 - Budget and Staffing Impact

Staff has analyzed data to determine the fees which would have to be charged to property owners to pay for planned capital projects in each of the City's drainage basins over approximately the next 20 years. (These projects entail major improvements to detention, channels, and outlets, not maintenance or rehabilitation.) The costs were spread out over 20 years with interest.

The estimated charges are presented on Table 5. The additional charges in that Fountainhead and Upper Embarrass Drainage basins would be relatively moderate, about \$3 and \$11 per year, respectively. This is due to the limited improvements planned for these basins. (The City will incur major expenses to construct a channel in the Beaver Lake Basin, but since that is a new facility as opposed to an existing facility, the cost will be assessed to surrounding property owners under City policies.)

However, the average single family residence would pay about \$85 in the Phinney Branch and \$225 in the Boneyard basin each year to fund planned capital projects. Larger, highly-developed properties could pay ten thousand dollars each year.

Such charges are probably not acceptable to most property owners. The City may believe, however, that from the standpoint of fairness, property owners in the Boneyard Creek basin should contribute through individual charges to the cost of capital projects. The City could establish a policy that individual property owners would pay a portion of the flood prevention project costs in their drainage basins. Or, the City could put a limit on the amount of the individual charges when compared to the standard fee. For example, the policy could state that the basin-specific assessment would be no more than 50% of the standard fee. So, if the standard fee were \$30 for a single-family residence, the property-owner would pay no more than \$15 for the basin-specific fee, or \$45 in total. This would be similar to Council's policy to limit the amount of any special assessment to no more than 25% of a property's tax bill.

This type of policy would produce some additional revenues. For example, assuming a basic charge of \$30 per ERU, a 50% increase would provide about \$230,000 per year for improvements in the Boneyard basin, and \$120,000 per year in the Phinney Branch. While these amounts represent a small portion of the money needed for the large capital projects, they would reduce the revenues needed from other sources. Moreover, the additional charges may be viewed as equitable by residents in other parts of the City whose drainage basins do not require such significant expenditures. The residents might then accept the concept of the drainage fee more willingly.

#### Section 8.5 - Recommended Action

Staff recommends that Council use the drainage fee as a means to charge property owners for their share of neighborhood improvements. Such charges are consistent with current policies. The drainage fee would merely provide a billing method that is more efficient, and may be more acceptable to property owners since all charges would be on one bill.

Charging particular properties for basin-specific improvements is not consistent with the Stormwater Master Plan. It states that the City should continue to fund large drainage improvement projects with dedicated sales tax revenues. Therefore, staff do not recommend using the drainage fee for this purpose.

#### **Section 9 - Implementation**

##### Section 9.1 - Implementation Steps

Implementing a stormwater management fee will entail the following steps:

1. The first step is to gather and analyze data to refine the results presented in this report. More detailed and sophisticated analysis will verify the overall revenues which can be achieved with a given rate per ERU. This stage of analysis will also address the many policy and technical issues discussed above, such as the rate method and adjustments.
2. The second step is to acquire the following data for all City properties:
  - parcel ID number
  - address
  - owner
  - impervious area (for non-residential areas, which will be sampled)
  - total area for non-residential areas (which will be sampled), if this factor is used

The City has the first three data elements on computer for most parcels, but not all. The City should be able to extract data on parcel sizes from existing automated maps, but this will take considerable effort. Developing data on impervious areas will require aerial photographs and putting data into computers, as described above.

3. The next step is to develop the billing system. The City will have to bring the data into the billing software, and determine methods to gather and input new data.

The City will also have to make a number of decisions regarding billing procedures. For example, the City could place the drainage utility fee on the same bill as the sanitary sewer fee. This would give property owners all their billing information at once, and save billing costs. Since both annual fees are relatively low, the total amount billed by the City would still be in the approximate range of most residents' water bills, and sewer bills from the Urbana-Champaign Sanitary District. The combined City bill would be less than most residents' monthly power bills. The City could split the bill if it was very large. Council may wish to consider other options such as billing each fee separately.

As discussed above, the City's financial management systems can handle a drainage fee. However, some modifications to hardware and/or software may be necessary, depending upon policy and procedural decisions concerning how the fee is implemented.

4. While the City is developing the data and billing systems, it should conduct an intensive public information program to educate citizens about the fee. Most importantly, this should present information on the specific service improvements which the City will provide with the fee. The program could include presentations at service clubs and neighborhood groups, and advertising with print and radio media.

In this day of television and computer graphics, the public has high expectations regarding the quality of information presented to it. Staff recommends that the City invest in the information program to meet those expectations. A professional firm could develop presentation materials which any staff or Council Member could use at public forums. Similarly, any advertising should meet commercial standards.

5. The City will have to adopt an ordinance to implement the fee, along with an appeals process for property owners who believe that the City's information concerning their properties is not accurate. The City should send a mailing to property owners prior to the first billing, informing property owners of the data on which the City will base the properties' charges.
6. Implementation will not end when the first bill is sent out. The City will receive many questions and complaints for at least a year, as each property owner receives his or her first bill. The implementation plan must include sufficient resources to respond to such concerns. Some appeals of the fee will require that staff inspect appellants' properties to ensure accuracy of the City's data.

#### Section 9.2 - Resources Required

Staff used existing resources to analyze the feasibility of a drainage utility fee. However, implementing a fee will require additional resources. Staff recommends hiring an engineering firm with expertise in utility fees to conduct steps 1 and 2 above. The firm would also guide the City in completing step 3. The City should employ a professional firm to develop public information materials.

Staff do not believe it is feasible to implement the fee with City staff only, within a reasonable period of time. To do so, the City would have to hire several staff members. The City could benefit from the expertise of a firm with experience in this area. Also, the City does not currently have sufficient facilities to accommodate the staff necessary to complete this project.

Even with the assistance of an engineering firm, implementing a drainage utility fee would place a significant burden on City staff. Much of this will fall to engineering staff, who would have to defer work on infrastructure maintenance and construction. The Finance Department will also have a significant workload increase during the implementation phase.

If Council directs staff to proceed with the fee, staff should first assess the staffing impact in more detail and develop a plan to manage the implementation phase. The City will likely hire additional engineers to implement other aspects of the Stormwater Master Plan. One of those staff members could manage fee implementation. Alternatively, the City could hire a project coordinator for two years to manage the implementation of the drainage fee. The project coordinator would report to the Finance Director or City Engineer.

Hiring highly-skilled staff on a temporary basis can be difficult, but may be possible due to relatively high mobility among technical employees in a university community.

### Section 9.3 - Timetable

Implementing a drainage utility fee will take about one year. If the City wants to bill the drainage utility fee with the sanitary sewer fee, the drainage utility fee would first be billed in early 1998. If Council did not wish to bill the drainage utility fee with the sanitary sewer fee, staff could possibly begin billing the drainage utility fee a few months earlier. Staff will develop a more specific action plan and timetable if Council directs staff to proceed with the sanitary sewer fee.

### **Section 10 - Acknowledgements**

The author wishes to acknowledge the work of the following persons, who gathered and/or analyzed data, or provided other assistance with the report:

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**TABLE 1:**  
**CITY OF CHAMPAIGN STORMWATER DRAINAGE FEE BY LAND USE TYPE**

<u>Land Use Type</u>	<u>Total Acreage</u>	<u>C Factor</u>	<u>Total ERU's per Land Use Type</u>	<u>Total Fee per Land Use Type</u>	<u>Total Number of Parcels</u>	<u>Average Fee per Land Use Type</u>
Parks/Agriculture	1,011	0.05	647.90	\$13,251.23	40	\$331.28
Industrial/Commercial	2,146	0.70	19,261.95	\$393,954.49	4,515	\$87.25
In-Town	282	0.45	1,628.00	\$33,296.54	1,760	\$18.92
Single-Family Res.	3,143	0.40	16,106.00	\$329,407.46	16,106	\$20.45
Multi-Family Res.	<u>1,950</u>	0.45	11,250.00	\$230,090.27	<u>1,916</u>	\$120.09
	8,532		<b>48,894</b>	<b>\$1,000,000.00</b>	<b>24,337</b>	
Fee per ERU based on \$1 million target=						
	\$20.45					

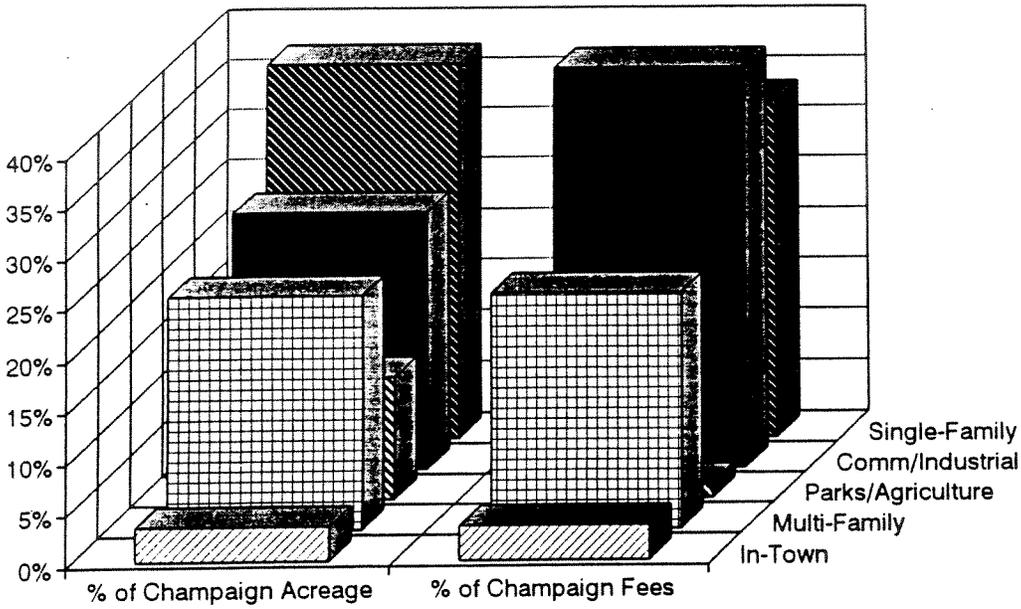
Note: The ERU's for each land use are calculated by dividing the total acreage for that land use by .078, and then multiplying the result by the C Factor for that land use. The figure .078 is derived from the assumed average area of single-family parcels (8,500 sq. ft.) times the C Factor (.40) divided by the area of an acre. The ERU's for single-family residential properties are equal to the number of single-family parcels.

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TABLE 2:

## Total Acreage VS. Total Fees Per Land Use Type

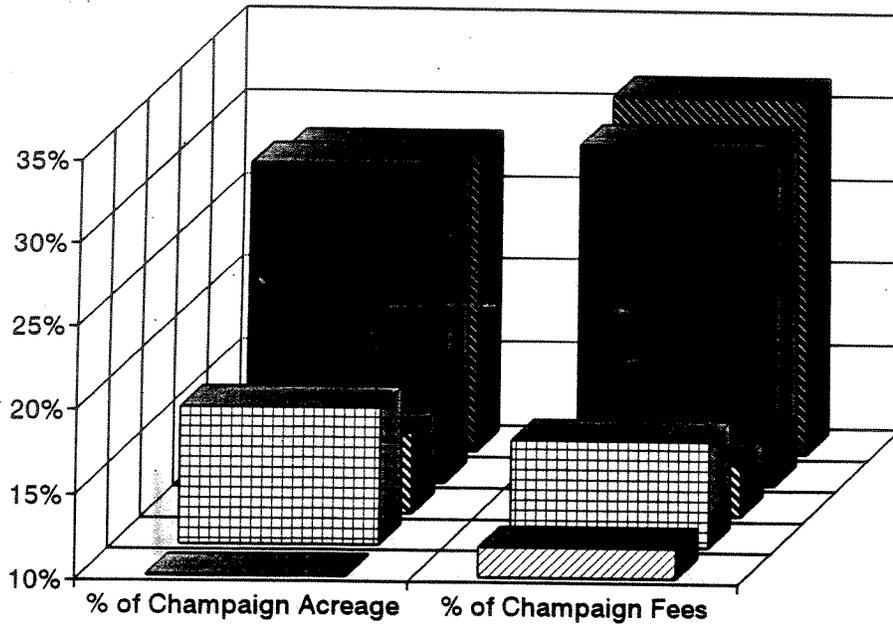


	Commercial/Industrial	In-Town	Multi-Family	Parks/Agriculture	Single-Family
<b>% of Champaign Acreage</b>	25.16%	3.31%	22.85%	11.85%	36.84%
<b>% of Champaign Fees</b>	39.40%	3.33%	23.01%	1.33%	32.94%
<b>FEE IN DOLLARS AT \$1 MILLION</b>	\$393,954.49	\$33,296.54	\$230,090.27	\$13,251.23	\$329,407.46

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**TABLE 3:**

### Total Acreage VS. Total ERU's Per Drainage District



	UPPER EMBARRAS	PHINNEY	BEAVER LAKE	FOUNTAINHEAD	BONEYARD
<b>% of Champaign Acreage</b>	10.03%	18.08%	14.77%	29.08%	28.04%
<b>% of Champaign Fees</b>	11.78%	16.22%	13.11%	30.31%	31.38%
<b>FEE IN DOLLARS AT \$1 MILLION</b>	\$117,834.01	\$162,203.29	\$131,141.11	\$303,097.78	\$313,777.81

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**Table 4:**  
**Estimated Annual Fee for Sample Properties Based on \$1 Million City Wide Target**

Property	Property Type	Drainage District	Number of Square Feet	CFactor	ERU's	Annual Fee*
Stipes Publishing	Small Commercial Property No Parking Lot	Boneyard	8,276.40	0.95	2.31	\$47.32
Coed Cinema	Small Commercial Property No Parking Lot	Boneyard	16,117.20	1.00	4.74	\$97.01
McDonalds on kirby & neil	Moderately Sized Commercial Property With Parking Lot	Embarras	35,719.20	0.90	9.46	\$193.49
Super K-Mart	Large Commercial Property With Parking Lot	Boneyard	655,142.40	0.95	183.18	\$3,746.02
Schnuck's	Large Commercial Property With Parking Lot	Fountain Head	732,034.00	0.95	204.68	\$4,185.68
Robeson Plaza	Moderately Sized Commercial Center with Parking Lot	Phinney	198,198.00	0.95	55.42	\$1,133.27
Champaign City Hall	Small Institutional Building; No Parking Lot	Boneyard	12,632.40	0.95	3.53	\$72.23
Sherman Residence Hall at fourth and chalmers	Moderately Sized Institutional Building No Parking Lot	Boneyard	80,150.40	0.75	17.69	\$361.81
Central High School	Large Institutional Building With Parking Lot	Boneyard	177,724.80	0.70	36.62	\$748.78
Christie Clinic at windsor and mattis	Large Institutional Building With Parking Lot	Phinney	219,024.00	0.80	51.57	\$1,054.61
United States Post Office mattis location	Very Large Institutional Building; With Parking Lot	Fountain Head	1,299,830.40	0.70	267.79	\$5,476.41
2003 Rebecca	Moderately Sized Single-Family Property	Phinney	8,809.29	0.40	1.04	\$21.21
2304 Scottsdale	Moderately Sized Single-Family Property	Phinney	11,500.00	0.40	1.35	\$27.69
1316 Hanover	Moderately Sized Duplex	Beaver Lake	9,432.00	0.45	1.25	\$25.55
309 East Chalmers	Small Multi-Family Parcel	Boneyard	6,098.40	0.85	1.53	\$31.20
101 East Green	Large Multi-Family Parcel	Boneyard	23,522.40	0.85	5.88	\$120.34

**For Commercial and Industrial Properties:**

Small = properties < than 20,000 square feet

Moderate = properties between 20,000 and 100,000 square feet

Large = properties > than 100,000 square feet

**For Residential Properties:**

Small = properties < than 6,500 square feet

Moderate = properties between 6,500 and 12,000 square feet

Large = properties > than 12,000 square feet

Note: C Factors used are based on the specific property not on the C Factors assigned to property use categories.

\*Based on \$1 Million Target

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