KEY ELEMENTS FOR CREATING A

STORMWATER UTILITY

By Wessler Engineering

Introduction

When it rains, storm water hits the ground and other hard surfaces. Since storm water cannot be absorbed by impervious surfaces, the storm water runs over the surface as storm water runoff. Storm water runoff must be managed through a storm water collection system (pipes, culverts, ditches, swales, inlets, curb and gutter, detention ponds, etc.) to prevent standing water and flooding.

Once a community has a good understanding and knowledge of its storm water problems, direction of how to correct the problems, and an estimate of how much improvements will cost; the next goal is to attain funding for implementation of the planned improvements. If the allocation of funds is not sufficient to address your community's storm water management needs, your budget is limited, the number of drainage projects has grown, or maintenance activities have been cut back because of a lack of resources, you will need to establish a funding source. Municipalities have established storm water utilities to serve as a practical means of providing funding for storm water management activities.

Why Communities Form a Storm Water Utility

The formation of a storm water utility requires time and resources, but the benefits of an established utility will outweigh required efforts. We have found four primary reasons why other communities have implemented a storm water utility.

» ***Provides a funding source*** *- Revenues can be used as a new source of funding to supplement or replace the community's expenditures towards storm water management that may be currently taken from the general tax fund. This enables the general fund to be used for other community needs. Revenues from the storm water utility user fee can only be used for storm water management activities.*

» ***Affords stability*** *– Revenues are constant and increase as the community grows. This benefit allows for a community to implement an ongoing maintenance program for the storm water management system.*

» ***Generates immediate capital improvements*** *– Bonding authority is realized in that revenues generated can be used to pay back bonds.*

» ***Allows for long-term solutions*** *– In conjunction with a Storm Water Master Plan, a proactive and systematic approach may be implemented to fix problem areas over time rather than reacting to complaints or emergencies.*

Identifying Storm Water Management Needs

An important step in establishing a storm water utility is determining the storm water management activities that will be funded by the utility. Cost estimates can be used to establish budget line items. Following is a list of possible activities that can be funded with storm water utility fees.

- *Regulatory requirements and permit compliance costs associated with the MS4 permitting program for Municipal Separate Storm Sewer Systems*
- *Storm sewer mapping*
- *Maintaining of the existing storm sewers (pipes, inlets, manholes)*
- *Cleaning or dredging of drainage ditches*
- *Replacement or rehabilitation of failing and deteriorating storm water infrastructure*
- *Developing and implementing a Storm Water Master Plan, which might include the following:*
    - *Identifying problem areas*
    - *Providing alternative solutions*
    - *Establishing cost estimates*
    - *Prioritizing needs*
    - *Creating a plan of action*
- *Planning and construction of storm water capital improvement projects*
- *Educational activities and involving the public in pollution prevention activities*
- *Storm water sampling or stream monitoring*
- *Utility billing and administrative costs*

Steps to Determine Storm Water User Fees

Significant and thorough consideration of storm water management needs are essential to establishing user fees. Charging citizens a fee for storm water management may be a new concept, and the fees must be equitable to survive public scrutiny and challenges to the storm water utility. Revenues needed for storm water management must be determined and weighed against "acceptable" fees charged to residents and businesses. Here is helpful information when determining a storm water user fee.

» *Fees are based on "Equivalent Residential Unit" or ERU.*

» *One ERU = average hard surface (impervious area) of residential properties (statistical analysis).*

» *Increases in hard surface correlates to increased storm water volume and runoff rate.*

» *Non-Residential properties are billed based upon multiples of ERU.*

» *User fees are ultimately based on the total number of ERUs and estimates for storm water management activities. A rate study is completed to determine the fee per ERU.*

» *The fee ultimately correlates to the cost of providing storm water management service.*

Stormwater Utility Estimates Based on Population

	Total Population				
	2,500	5,000	7,500	10,000	15,000
Stormwater User Fee (per month)	$4.00	$4.00	$4.00	$4.00	$4.00
Estimated Revenue per Month	$7,000	$14,000	$21,000	$28,000	$42,000
Estimated Professional Services Fee (Engineer/Rate Consultant)	$52,000	$60,000	$67,000	$74,000	$89,000
Time Required to Pay Professional Services (Months)	7.4	4.3	3.2	2.6	2.1
Total Estimated Revenue, 1 year*	**$30,000.00**	**$110,000.00**	**$185,000.00**	**$260,000.00**	**$415,000.00**
Total Estimated Revenue, 5 years*	**$370,000.00**	**$780,000.00**	**$1,190,000.00**	**$1,610,000.00**	**$2,430,000.00**
Total Estimated Revenue, 20 years*	**$1,630,000.00**	**$3,300,000.00**	**$4,970,000.00**	**$6,650,000.00**	**$9,990,000.00**

Table notes:
*Professional Services Fees Deducted from Amount
assume 2.5 persons per household
assume 750 square feet of non-residential impervious surface per capita
assume 1 Equivalent Residential Unit = 2,500 square feet

Billing and Collecting Fees

Rate payers can be billed through their existing monthly utility bills with the storm water utility fee listed as a separate line item. The fees also can be collected semi-annually as part of owner's property tax liability. Possible actions that can be taken for delinquent accounts include charging late fees, a civil action against renter/owner, or legal counsel to review ordinances and procedures.

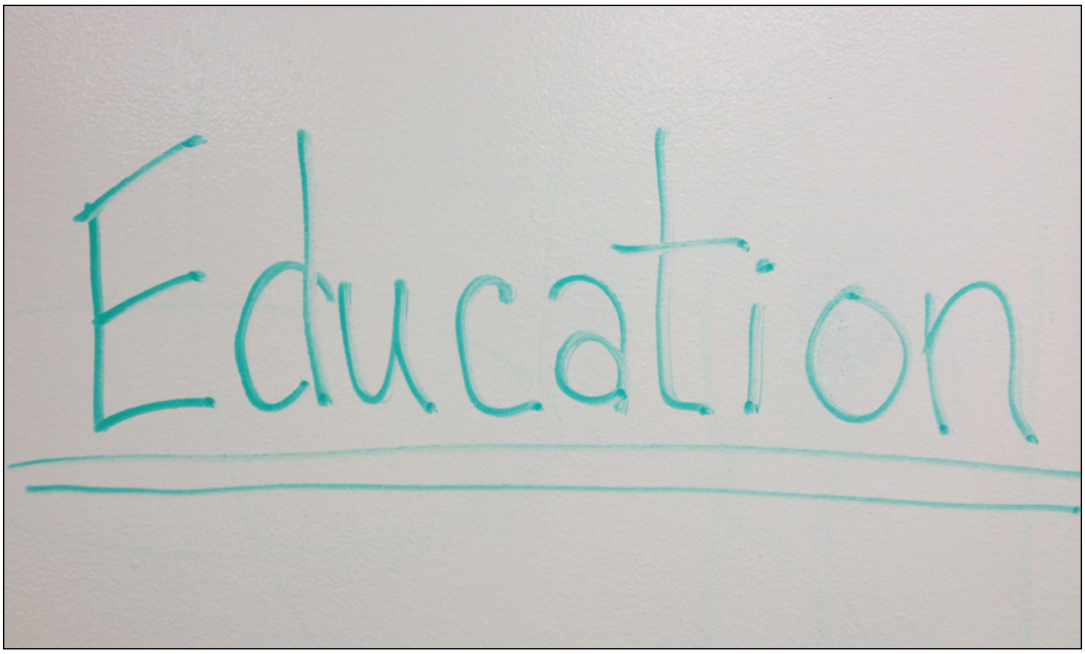
Assessing at Tax vs. Establishing a Storm Water Utility

Taxes are used to fund many community programs. Since taxes are based on assessed property value, allocating existing tax revenue for storm water would require cuts to other programs. A storm water user fee based on impervious surface area more accurately reflects each property's contribution to storm water runoff. Additionally, through storm water user fees, tax exempt properties that have impervious surfaces will contribute a fair and equitable share towards the overall cost of the storm water management program.

Educate, Educate, Educate!

We cannot stress enough the importance of public education, which is key to successful storm water utility formation. If your citizens do not understand the benefits, they will not vote in favor of the proposed rate, and you will not have a funding source available to pay for storm water management related expenses.

Citizens are not used to paying a separate fee for the management of storm water; they expect the street or sanitary department funds to continue covering storm water management costs. Furthermore, many citizens do not have flooding problems because they have adequate storm sewers or ditches in the areas in which they live. Therefore, they do not want to pay for improvements or upgrades for other areas of the community. Most citizens do not take into consideration that all residents and businesses paid for the existing storm sewers, which were most likely funded from the general fund (typically taxes) at some time in the past.



Here are a few ideas to help educate the public:

- *Send out a Drainage Needs Survey to citizens so they can be involved in pointing out problem areas of concern to them.*
- *Conduct a public hearing on the presentation of the Storm Water Master Plan so citizens can attend and learn about the community's drainage problems and recommended solutions.*
- *Inform key community personnel about storm water problems and issues.*
- *Invite community members to serve on an Advisory Committee to assist in the process.*
- *Take pictures of flooding in problem areas during heavy rain events and have an article published in the local paper. Documented historical flooding events and pictures are also useful.*
- *Inform citizens through newspaper articles or flyers in the monthly utility bill that the community is considering the formation of a storm water utility and explain the benefits of such a utility.*
- *Post one-page informational letters or pamphlets on bulletin boards in the local post office, laundromat, community website, etc.*
- *Hold public meetings prior to rate establishment.*
- *Use existing educational programs in the area. Typically, the county SWCD or Natural Resources Conservation Service will assist with community education efforts.*
- *Inform non-residential with higher than average fees prior to mailing the first bill so they can plan for the new fee and incorporate it into their budget.*

What should be my next steps?

If you are considering establishing a storm water utility, use the following list of tasks as a guide. Establish milestone deadlines for each task and assign tasks to those who will assist in the process.

» *Set up Advisory/Steering Committee*

» *Adopt an ordinance to create a department of storm water management or establish under sewage works*

» *Develop an operations and maintenance budget*

» *Develop a prioritized improvements program, including estimated costs*

» *Measure impervious surfaces*

» *Calculate ERUs of residential and non-residential properties*

» *Educate and include the public throughout process*

» *Create and institute policies, procedures and drainage standards manual*

» *Use a rate consultant to estimate storm water rates*

» *Adopt storm water rate ordinance*

» *Update billing software*

» *Begin administration of storm water utility – send out bills*

» *Continue to hold public meetings to respond to customer questions and concerns*

Conclusion

Keep in mind that a storm water utility must be fair and equitable and must have proper justification for the fees charged to the rate payer. Taking time to establish the utility properly and educating the utility customers on the benefits of storm water management will be key to a successful utility.

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- *Environmental Services*
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- *Industrial*

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