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Stormwater Fees Literature Review
Prepared For Pennsylvania Stormwater Authority
08/04/2014

Stormwater Fees Literature Review
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Overview

As promised, Water Words That Work LLC has reviewed surveys, focus group reports, “how to” guides, studies, and reports that shed light on how the public and businesses react to the introduction of a stormwater utility fee. We also looked into the steps communities take to set up a stormwater utility.

With your approval, we explored the body of market research seeking answers to five key questions:

1. **Question #1:** What are the most successful arguments that opponents use to oppose stormwater fees?
2. **Question #2:** What are the most successful arguments use that proponents use to “sell” stormwater fees?
3. **Question #3:** What questions and concerns do residents have about stormwater fees?
4. **Question #4:** What questions and concerns do businesses have about stormwater fees?
5. **Question #5:** What questions do local governments have before introducing stormwater fees?

This document summarizes our findings.

Utility vs. Authority

Throughout this literature review the terms Stormwater Utility and Stormwater Authority are used interchangeably. In Pennsylvania, stormwater fees are collected by “authorities,” but the term “utility,” a synonym, is used more frequently around the country.

Conclusions and Recommendations

Based on our review of the information available on the use of stormwater utilities in communities around the United States we conclude and recommend the following:

1. Public outreach is important, and can determine the success or failure of your efforts.

Good public outreach and stakeholder engagement will allow community members to become part of the process, and know their voices are heard and that their opinions matter. It also allows you to control the message and keep rumors and misinformation from spreading. Remember, “a properly funded and managed stormwater utility can mean more parks and open space, less flooding, cleaner streams, and increased property values.”

2. Make your case to ratepayers and community leaders emphasizing how a stormwater utility benefits them.

Businesses are in business to make money, so proposing to add a stormwater utility fee may cause them concern. Talking to business about the community improvements to be made with the fee will ease these concerns. Emphasize the truism that: “A more desirable community improves the local economy.”

1. **Lead with services provided and their benefits.** Our sources agree that when making your case you should start by talking about what improvements the utility will make to problems or issues that matter to community members.

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2. **Visualize services and benefits.** Show the community their money at work, our research shows successful stormwater utilities keep their ratepayers updated on accomplishments through pictures, video, and other types of visual media.
3. **Adopt a user fee model.** Our sources indicate that residents are more likely to perceive a system with rates based on property stormwater volume -- with discounts for BMPs such as rain gardens, swales, etc. -- as a fee. In contrast, residents are more likely to perceive a flat-fee model, with a fixed amount per property, as a "tax."
4. **Break the fee down to the smallest possible increment (e.g. \$5 per household per month).** The literature agrees that when proposing a stormwater utility fee, size of the numbers you choose to share with the community matters. Always be honest about the costs, but break them down into numbers that seem manageable.
5. **Prepare reading materials at an appropriate level for the community.** Informational materials about stormwater fees should be prepared at readability scores between 60 and 70 -- suitable for ratepayers with a wide variety in reading ability. Lower (harder to read) readability scores open the door for misunderstandings about the program, which opponents may exploit.

3. Learn from your neighbours.

Talk to other communities who have successful stormwater utilities. According to our research "there are between 1800 and 2000 SWUs in the U.S. and more are being formed all the time." Get the details about the process of setting up the utility from start to finish. Be sure to ask about lessons learned along the way.

Research Results

Question #1: What are the most successful arguments that opponents use to oppose stormwater fees?

Our research shows that opponents to stormwater fees argue they are a tax. They do this because:

- it helps get them public attention and support, and
- it can be used as a legal argument in court.

Challenges to stormwater utility fees bring to light "different philosophies ... on taxation and government fees, views on the role of government in social and environmental problems, and concerns about the equality and fairness of charges relative to who the benefit. The views of how stormwater programs should be organized and financed are microcosms of the larger picture of government's role in solving social and environmental problems through innovative public administration."¹

Below are comments from community members reacting to the idea of a stormwater utility fee:²

- There was a negative backlash when the town started providing trash service. The cost was lower than people paid private haulers, but they were miffed by being mandated to use the town service.
- Some people will be "spitting mad."

¹ Meyers, T. J., Hester, P. T., & Pyne, J. C. (2014). Toward a Watershed-and System of Systems–Oriented Perspective of Stormwater Management Enterprise Performance. *Public Works Management & Policy*, 1087724X14529415. From: <http://pwm.sagepub.com/content/18/1/5.full.pdf+html>

² Palmer, J., Lindsey, D., and Sapp, G. (2005). *Allen County MS4 Stormwater Finance*. Center for Urban Policy and the Environment. From: <http://policyinstitute.iu.edu/uploads/PublicationFiles/05-C25Allen%20County%20MS4%20Storm%20H2O.pdf>

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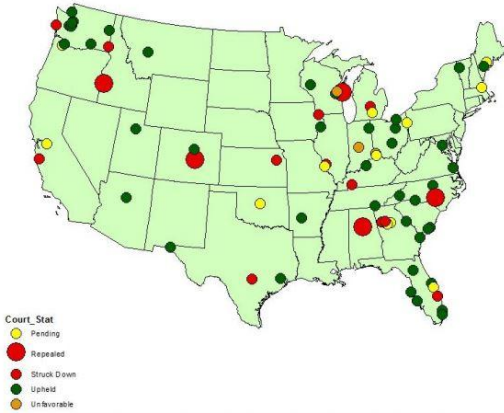
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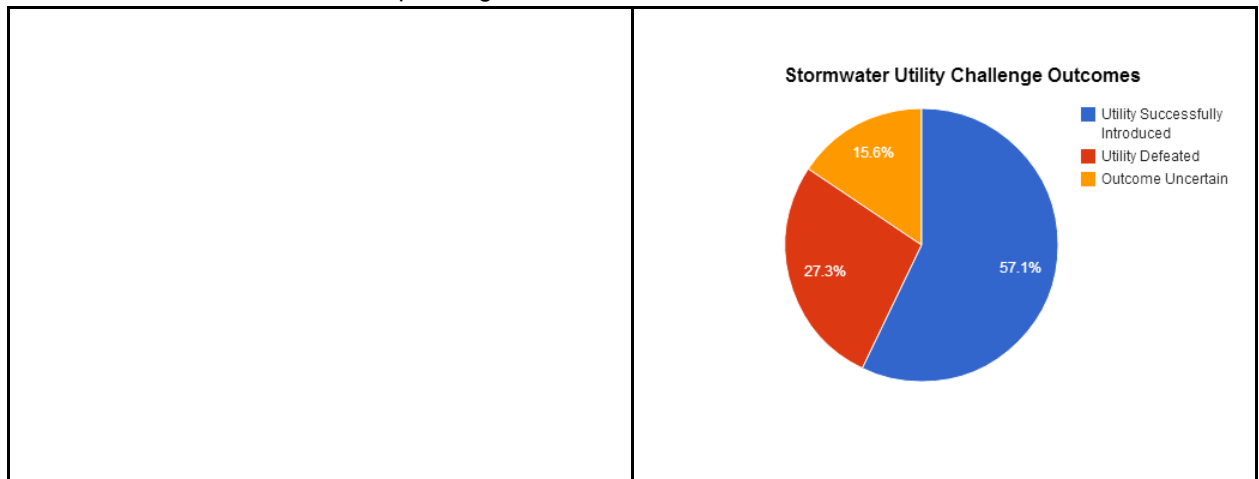
- Stormwater rate will be perceived as a new tax.
- Community is very conservative and doesn't like change. Many residents moved away from Ft. Wayne because they didn't like the level of government intrusion.

Local governments introducing stormwater fees can expect both political and legal challenges. According to an annual stormwater utility survey conducted by Western Kentucky University, as of 2013, there have been “76 legal or political challenges to stormwater utilities” (see map below for locations of challenges). Of those:³

- 44 were decided in favor of the utility
- 16 cases resulted in unfavorable decisions or were struck down.



- 12 of the cases are still pending or the outcome could not be determined



-Source: Western Kentucky University Stormwater Utility Survey 2013

http://www.wku.edu/engineering/civil/fpm/swusurvey/western_kentucky_university_swu_survey_2013.pdf

³ Campbell, W. et al. (2013). Western Kentucky University Stormwater Utility Survey. From:
³ http://www.wku.edu/engineering/civil/fpm/swusurvey/western_kentucky_university_swu_survey_2013.pdf
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Stormwater utilities, proposed and rejected due to public opposition

Utilities around the country have never made it beyond the proposal process due to controversy and poor political climate. Here are some examples:⁴

- Manchester (NH), where a funding proposal was developed by city staff, but never brought to a vote because of opposition from local elected officials based on their perception of economic conditions.
- Berkeley County (SC), in which a funding proposal was developed by county staff but was rejected by a vote of the County Council when significant stakeholder opposition to the proposal emerged.
- Huntsville (AL), in which a stormwater utility proposal was developed by a stakeholder advisory committee and brought before the local City Council; the proposal stalled amid public controversy and legal uncertainty and was never voted on.
- Dover (NH), in which a proposal from a stakeholder advisory committee was rejected by the City Council amid public opposition.

Failure to communicate value

Why did these stormwater utilities fail where so many were successful? They didn't communicate the value of the program and its benefits to the people and businesses in the community. Without support the fees are doomed and may not even make it far enough to be challenged in court. In Florida "several communities in the state ... have tried to pass a stormwater utility and have been unsuccessful, just because the communities themselves didn't want to go with that approach."⁵

So who might the opponents be? The research reports generally agree that it could be anyone, but the groups listed below are prime candidates:⁶

- Tax exempt property owners;
- Properties with very large impervious surfaces;
- Those on fixed incomes;
- Some developers;
- Rural residents⁷
- "Maybe Everyone"

Poor readability compromises educational efforts

Stormwater professionals are generally better educated than the population they serve, and this gap is reflected in the materials they write. In contrast, the ratepayers who pay stormwater fees come from all walks of life and have a wide variety of educational backgrounds.

For this reason, an appropriate Readability Score for a stormwater authority educational materials would be between 60 and 70. In practice, stormwater educational materials that fall within this target range are rare. Most stormwater education materials score too low -- this means they are simply too hard to read for many ratepayers. Low readability creates opportunities for ratepayers to legitimately misunderstand information they present -- and provide an opportunity for opponents to define the fee in unfavorable terms.

⁴ EPA. (2013). Evaluation of the Role of Public Outreach and Stakeholder Engagement in Stormwater Funding Decisions in New England: Lessons from Communities. From: <http://www.epa.gov/evaluate/pdf/water/eval-sw-funding-new-england.pdf>

⁵ Kaspersen, J. (2000). *The Stormwater Utility: Will It Work in Your Community?* Stormwater magazine. From: http://www.stormh2o.com/SW/Articles/The_Stormwater_UTILITY_Will_It_Work_in_Your_Community_212.aspx

⁶ Horsley Witten Group, Inc. (2011). *EPA Region 1 MS4 Stormwater General Permits and LID Training Clinic*. From:

http://www.horsleywitten.com/MS4-LID-training/slideshows/MA/110526_StormwaterFunding.pdf

⁷ New England Environmental Finance Center. (2005). Stormwater Utility Fees: Considerations and Options for Interlocal Stormwater Working Group. From: <http://efc.muskie.usm.maine.edu/docs/StormwaterUtilityFeeReport.pdf>

Informational Piece	Retrieved From	% of Residents with 4 Year College Degree or Higher ⁸	Readability Score
Maryland Department of the Environment Stormwater Utility FAQ	http://www.mde.state.md.us/programs/Marylander/Pages/StormwaterFeeFAQ.aspx	36%	22
City of Albany Stormwater Management Program & Stormwater Utility User Fee FREQUENTLY ASKED QUESTIONS	http://www.albany.ga.us/filestorage/1798/2879/2953/184703/FAQ_final_112613.pdf	17%	26
City of Richmond Stormwater Frequently Asked Questions	http://www.richmondgov.com/PublicUtilities/StormwaterFAQ.aspx	33.8%	49
City of Fort Worth, Texas Stormwater Utility Fee	http://fortworthtexas.gov/tpw/info/?id=5776	26%	59
Johnson City, TN Stormwater Utility Fee FAQ	http://www.johnsoncitytn.com/uploads/files/stormwater/Stormwater%20Utility%20Information/Stormwater%20Utility%20FAQ.pdf	36%	61

Question #2: What are the most successful arguments use that proponents use to “sell” stormwater fees?

All of our sources agree that education and outreach are crucial to earning community acceptance of the stormwater utility fee. The earlier and more often that the government reaches out, the better.⁹ The key to making a successful argument to “sell” stormwater fees to your community is letting them know that the fee is for services they need and want.¹⁰

However, our sources were vague about specific arguments and points to make to bring your community on board with the idea of paying a stormwater fee quickly and easily. Many reiterate the point that each community is unique, and you must talk to your community members directly to find out what issues are important to them.

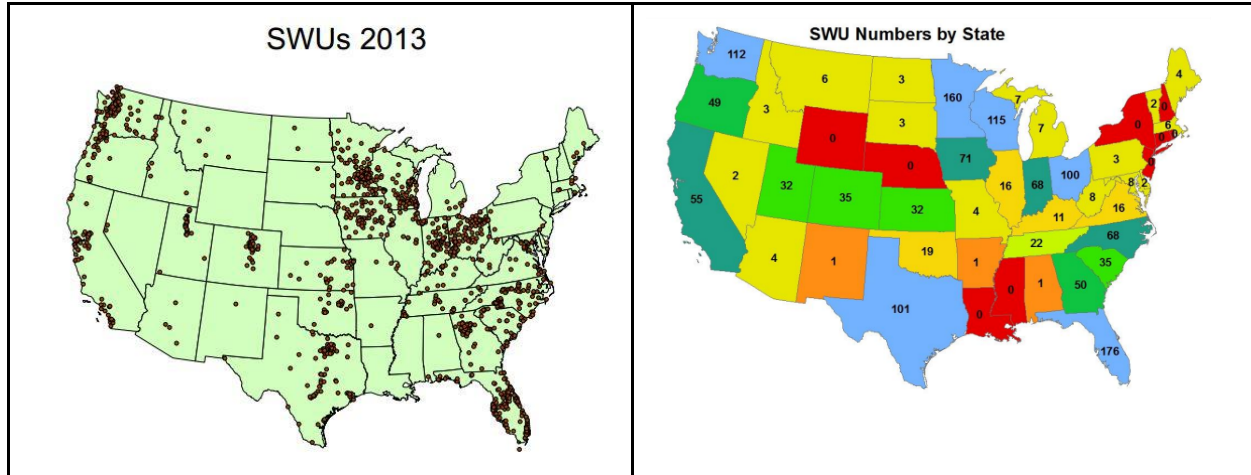
⁸ U.S. Census Quickfacts. From: <http://quickfacts.census.gov/qfd/states/00000.html>

⁹ Puget Sound Water Quality Action Team. (2000). Stormwater Education Programs: Selected Exmples from Puget Sound. From: http://www.psparchives.com/publications/our_work/stormwater/stormwater_resource/stormwater_education/stormwater_book.pdf

¹⁰ EPA. (2013). Evaluation of the Role of Public Outreach and Stakeholder Engagement in Stormwater Funding Decisions in New England: Lessons from Communities. From: <http://www.epa.gov/evaluate/pdf/water/eval-sw-funding-new-england.pdf>

A review of stormwater utilities conducted as part of a 2013 feasibility study for a statewide stormwater utility program in Vermont reveals how important utilities believe education and outreach to be:¹¹

- 94 percent of utilities incorporate some form of public education program
- 97 percent of utilities surveyed claim education programs are beneficial in establishing a utility
- 70 percent claimed education programs were essential for the long term success of the project



Locations of Stormwater Utilities in the United States in 2013.
 Source: Western Kentucky University Stormwater Utility Survey, 2013

"Somebody once said, 'You can either invite me up front to be a partner or you can invite me in the end to be a plaintiff.'¹² This statement is appropriate because stormwater utility fees are often unpopular. A source we found stated, "creating new public funding sources is no mean feat. Communities that have been successful have put considerable resources into educating both the public at large and decision-makers about the merits of user fees and stormwater management in general.¹³" To ensure success utilities should:

- Work to educate the "public about the need to collect stormwater fees, emphasizing that paying fees now will cost less than paying later through a special assessment tax."¹⁴
- Resolve legal vulnerabilities raised by conflicting stakeholder interests through discussions.¹⁵
- Involve stakeholder groups that might legally challenge a utility in stakeholder deliberations from the beginning.¹⁶
-

¹¹ Ali, K., Sandoval, E., and Schorr, K. (2013). *Assessing the Feasibility of a Vermont Statewide Stormwater*

Utility. PRS Policy Brief 1213-01. From:

¹¹ http://rockefeller.dartmouth.edu/shop/stormwater_vermont-final_updated.pdf

¹² Kaspersen, J. (2000). *The Stormwater Utility: Will It Work in Your Community?* Stormwater magazine. From:

¹² http://www.stormh2o.com/SW/Articles/The_Stormwater_Utility_Will_It_Work_in_Your_Communit_212.aspx

¹³ New England Environmental Finance Center. (2005). *Stormwater Utility Fees: Considerations and Options for Interlocal*

Stormwater Working Group. From: <http://efc.muskie.usm.maine.edu/docs/StormwaterUtilityFeeReport.pdf>

¹⁴ Kaspersen, J. (2000). *The Stormwater Utility: Will It Work in Your Community?* Stormwater magazine. From:

¹⁴ http://www.stormh2o.com/SW/Articles/The_Stormwater_Utility_Will_It_Work_in_Your_Communit_212.aspx

¹⁵ EPA. (2013). *Evaluation of the Role of Public Outreach and Stakeholder Engagement in Stormwater Funding Decisions in New England: Lessons from Communities*. From: <http://www.epa.gov/evaluate/pdf/water/eval-sw-funding-new-england.pdf>

¹⁶ EPA. (2013). *Evaluation of the Role of Public Outreach and Stakeholder Engagement in Stormwater Funding Decisions in New England: Lessons from Communities*. From: <http://www.epa.gov/evaluate/pdf/water/eval-sw-funding-new-england.pdf>
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A study reviewing outreach programs for several communities found that “citizens are much more willing to pay for something when they can see a tangible benefit.”^{17 18} Stormwater management can seem like an invisible service, especially to community members who have not been made aware of it does.¹⁹

Build your case

Case studies show that communities using stormwater utility fees can improve water quality, reduce flooding, have healthier community green spaces, and better quality of life.²⁰ Every community has good reasons why their stormwater funding programs need to be improved. Find out what your community members care about and let them know the fee will pay to fix it. Issues may include:^{21 22 23}

- saving a popular stream
- adding or improving streamside park space
- planting trees
- fixing decaying storm drains and mounting complaints
- local flooding
- loss of fish and other wildlife
- beach closings
- a roadway or bridge collapse
- lawsuits

Reframe the costs

Big numbers are scary and overwhelming. Talking about how many millions of dollars a program will cost can make it seem unmanageable. Psychological research concludes that by reframing larger monthly or yearly fee amounts, into smaller time frames, like weekly or daily expenses, people find them more manageable and reasonable.²⁴

By putting the costs into small monthly and weekly costs per household, large million dollar projects begin to seem manageable. A \$3million repair to a failing storm drain system isn't as daunting when put in terms of \$5 per household per month. Also, by spreading the costs over the community, you are reminding everyone that “we are all in this together.”²⁵

¹⁷ New England Environmental Finance Center. (2005). Stormwater Utility Fees: Considerations and Options for Interlocal Stormwater Working Group. From: <http://efc.muskie.usm.maine.edu/docs/StormwaterUtilityFeeReport.pdf>

¹⁸ Stormwater Journal (2011). Public Education and Outreach. From: <http://www.cityofnorthport.com/Modules/ShowDocument.aspx?documentid=3957>

¹⁹ New England Environmental Finance Center. (2005). Stormwater Utility Fees: Considerations and Options for Interlocal Stormwater Working Group. From: <http://efc.muskie.usm.maine.edu/docs/StormwaterUtilityFeeReport.pdf>

²⁰ Walker, B.P. (2001). Preparing for the storm: Preserving water resources with stormwater utilities. Reason Public Policy Institute. Policy Study 275. From: <http://www.americandreamcoalition.org/openspace/stormwater.pdf>

²¹ RIDEM Office of Water Resources. (2012). *Stormwater Utility District Feasibility Study Final Report Bristol, Rhode Island*. From: <http://bristolri.us/documents/community/Bristol%20FINAL%20SUD%20Feasibility%20Report090612.pdf>

²² Lutzeyer, S., Perrin, C., and Taylor, L. Residents' willingness to pay to improve an impaired urban watershed. NC State University. From: https://drive.google.com/?usp=chrome_app#folders/0BxjtnOJhd9TUWkhlZks2c1d6UWs

²³ Woodard & Curran. (2011). Telephone survey of Portland residents. Opinion Works. From: https://drive.google.com/?usp=chrome_app#folders/0BxjtnOJhd9TUWkhlZks2c1d6UWs

²⁴ Gourville, J. T. (1998). Pennies a Day: The Effect of Temporal Reframing on Transaction Evaluation

²⁴ *Journal of Consumer Research*, 24(4).

<http://www.jstor.org/discover/10.1086/209517?uid=3739968&uid=2&uid=4&uid=3739256&sid=21103995111351>

²⁵ Sinnott, J. D. (2013). *Positive Psychology: Advances in Understanding Adult Motivation*. Springer Science & Business. From: <http://books.google.com/books?id=hZ5GAAAQBAJ&lpg=PR7&ots=6um3jUIDqa&dq=%22all%20in%20this%20together%22%20psychology%20synchrony&lr&pg=PR1#v=onepage&q&f=false>
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Our sources indicate that “the average monthly fee nationwide is about \$4.00 per household per month and ranges as high as \$20.00 per month per household.”²⁶ Studies conducted in Manchester and Portsmouth, New Hampshire agree with these numbers. During meetings to assess citizens willingness to pay stormwater utility fees, groups from each community stated that a monthly fee around \$4-\$5 would be acceptable to most. The group in Portsmouth “felt that, given any flexibility in what to include in the stormwater program and therefore the stormwater budget, \$4/month sounded acceptable as it stays below two emotional barriers: \$5/month and \$50/year.”²⁷ In San Mateo County California “60 to 65 percent of ... phone survey respondents said they'd be willing to annually pay between \$17 and \$35 per home.”²⁸

Educate and engage community decisionmakers and citizens

By taking time to learn “who your community’s decision makers are, what they care about, who influences them, and what might stop them from supporting your bill ... you’ll be able to create a strategy for finding the best messages and spokespeople to set your stormwater bill up for success.”²⁹ Use what you learn to set your leaders up for success.^{30 31} Our sources agree that you should prepare elected officials for opposition to the fee and “give them solutions.”^{32 33 34}

To bring their citizens to the table many communities take the following steps:^{35 36 37 38}

- form an advisory committee
- plan public education campaigns
- reach out to community groups and other important stakeholders to explain to them the reasons for the new charges and the types of services that the charges will support

A study of stormwater utilities in EPA region 4 asked, “How important is an organized public

²⁶ AMEC & Hoyle, Tanner and Associates. (2008). Stormwater Feasibility Study for the City of Manchester, New Hampshire. From: <http://des.nh.gov/organization/divisions/water/stormwater/documents/manch-sw-utilityfs-rpt.pdf>

²⁷ AMEC (2011). Portsmouth, NH Stormwater Utility Feasibility Study Final Report. From:

²⁷ <http://des.nh.gov/organization/divisions/water/stormwater/documents/portsmouth-sw-utility-study.pdf>

²⁸ Eslinger, B. (2014). Surveys sent to 22,000 San Mateo County homes to gauge support for stormwater cleanup tax. *San Jose Mercury News*. From: http://www.mercurynews.com/peninsula/ci_25574601/surveys-sent-22-000-san-mateo-county-homes

²⁹ Choose Clean Water Coalition. *Stormwater Communications: Tools to help your community understand and support an effective stormwater utility plan*. From: <http://choosetocleanwater.org/toolkit/stormwatertoolkit.pdf>

³⁰ Strand Associates, Inc. (2009). City of Portage, Wisconsin Stormwater Utility Feasibility Study. From: http://www.portagewi.gov/vertical/Sites/%7B889D2199-3A6C-48F9-AB94-DE81D288EE40%7D/uploads/2009_Stormwater_UTILITY_Feasibility_Study.pdf

³¹ Kaspersen, J. (2000). *The Stormwater Utility: Will It Work in Your Community?* Stormwater magazine. From: http://www.stormh2o.com/SW/Articles/The_Stormwater_UTILITY_Will_It_Work_in_Your_Community_212.aspx

³² Horsley Witten Group, Inc. (2011). *EPA Region 1 MS4 Stormwater General Permits and LID Training Clinic*. From:

³² http://www.horsleywitten.com/MS4-LID-training/slideshows/MA/110526_StormwaterFunding.pdf

³³ Campbell, W. et al. (2013). Western Kentucky University Stormwater Utility Survey.

³³ http://www.wku.edu/engineering/civil/fpm/swsurvey/western_kentucky_university_swu_survey_2013.pdf

³⁴ Carter, T. (2008). Stormwater Utility Handbook A Step-by-Step Guide to Establishing a Utility in Coastal Georgia. From:

³⁴ http://www.rivercenter.uga.edu/publications/pdf/coastal_stormwater_utility_2008_10_08_lo_res.pdf

³⁵ Palmer, J., Lindsey, D., and Sapp, G. (2005). *Allen County MS4 Stormwater Finance*. Center for Urban Policy and the Environment. From: <http://policyinstitute.iu.edu/uploads/PublicationFiles/05-C25Allen%20County%20MS4%20Storm%20H2O.pdf>

³⁶ Carter, T. (2008). Stormwater Utility Handbook A Step-by-Step Guide to Establishing a Utility in Coastal Georgia. From:

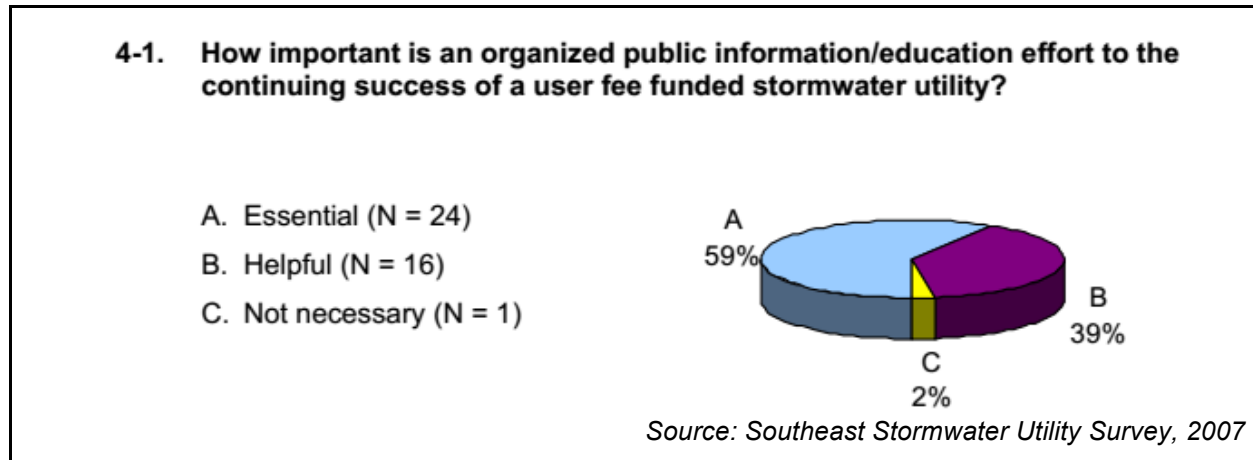
³⁶ http://www.rivercenter.uga.edu/publications/pdf/coastal_stormwater_utility_2008_10_08_lo_res.pdf

³⁷ Stormwater Fact Sheet No. 7: A “How to” Guide for Local Officials, 2014. From: <http://riverlink.org/wp-content/uploads/2014/01/stormwaterseriesfinal7.pdf>

³⁸ Strand Associates, Inc. (2009). City of Portage, Wisconsin Stormwater Utility Feasibility Study. From:

³⁸ http://www.portagewi.gov/vertical/Sites/%7B889D2199-3A6C-48F9-AB94-DE81D288EE40%7D/uploads/2009_Stormwater_UTILITY_Feasibility_Study.pdf
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information/education effort to the continuing success of a user fee funded stormwater utility?" The responses in the chart below show that 98% believe they are either helpful or essential to the success of a stormwater utility.³⁹



There doesn't seem to be one type of public outreach that works everywhere, but to be "successful it will be important to have consistent goals and objectives," "form partnerships," and reach "diverse audiences."⁴⁰ Popular options include:⁴¹

- educational information and tools included in the envelope with bills
- internet (website, email, webinar, etc...) based education and outreach
- public presentations and hearings
- school programs
- participation in public events

Start small

Begin your outreach process by speaking to a small group of community members and local government staff about the stormwater utility fee proposal, find out what they think about adding the fee and how they expect the rest of the community to react. Here are some comments from a focus group on the topic of starting a stormwater utility in their community:⁴²

- *The town is going to take a hit with any fee so it might as well start high.*
- *Residents respond better if everyone has to pay.*
- *Create or disseminate a clear plan for management and funding.*
- *Showing physical, capital improvements is critical to acceptance.*
- *Messages about stormwater quality alone or stormwater management as a regulatory requirement or mandate were not expected to resonate with residents.*
- *Coupling messages about water quantity and quality will be most effective. Residents better*

³⁹ Southeast Stormwater Association, Inc. (2007). *Southeast stormwater utility survey*. From: <https://docs.google.com/file/d/0BxjtnOJhd9TUWkVtSHJHTm1iU00/edit>

⁴⁰ Department of Planning & Engineering Town of Somers. (2006). *A model stormwater management program for municipal separate storm sewer systems in the Croton watershed*. From: http://www.somersny.com/Pages/SomersNY_Planning/amodelstormwaterprogram.pdf

⁴¹ Ali, K., Sandoval, E., and Schorr, K. (2013). *Assessing the Feasibility of a Vermont Statewide Stormwater Utility*. PRS Policy Brief 1213-01. From:

http://rockefeller.dartmouth.edu/shop/stormwater_vermont-final_updated.pdf

⁴² Palmer, J., Lindsey, D., and Sapp, G. (2005). *Allen County MS4 Stormwater Finance*. Center for Urban Policy and the Environment. From: <http://policyinstitute.iu.edu/uploads/PublicationFiles/05-C25Allen%20County%20MS4%20Storm%20H2O.pdf>

understand quantity issues.

- *Focus on the capital expenditures that will be made and the particular problems that the funding will address.*
- *Quality of life language and identifying the lake as a local asset are additional potential messages.*

Use financial incentives

Financial incentives are a good way to help people accept stormwater utility fees.⁴³ They are more likely to be successful when “research on the target audience suggests that people are unlikely to change” their attitudes and behaviors “without such an incentive.”⁴⁴ Examples include:

- Providing discount cards from local businesses for participating in a household hazardous waste recycling event⁴⁵
- Paying homeowners a small stipend for agreeing to participate in focus group meetings.⁴⁶
- Discounting user fees when stormwater BMPs are installed on residential and non-residential properties.^{47 48}
- Give public and private schools the option to receive credits for education programs on “water resources and land stewardship.”⁴⁹

User fee vs. tax

Evidence shows that “residential property owners generally support a user fee model (which assesses a charge in relation to the stormwater contribution from a property, rather than property tax which is based on assessed property value).”⁵⁰

But, sometimes going against the grain works. While utilities have been labeled as taxes by opponents to get them revoked, sometimes passing a stormwater tax works. A utility in “Rantoul, Illinois ... passed their stormwater utility as a tax.”⁵¹ If your community can pass the pass a utility fee as a tax, it reduces the chance it can or will be successfully challenged in court.

⁴³ Kaspersen, J. (2000). *The Stormwater Utility: Will It Work in Your Community?* Stormwater magazine. From:

⁴³ http://www.stormh2o.com/SW/Articles/The_Stormwater_UTILITY_Will_It_Work_in_Your_Communit_212.aspx

⁴⁴ Department of Planning & Engineering Town of Somer. (2006). *A model stormwater management program for municipal separate storm sewer systems in the Croton watershed.* From:

http://www.somersny.com/Pages/SomersNY_Planning/amodelstormwaterprogram.pdf

⁴⁵ Department of Planning & Engineering Town of Somer. (2006). *A model stormwater management program for municipal separate storm sewer systems in the Croton watershed.* From:

http://www.somersny.com/Pages/SomersNY_Planning/amodelstormwaterprogram.pdf

⁴⁶ Department of Planning & Engineering Town of Somer. (2006). *A model stormwater management program for municipal separate storm sewer systems in the Croton watershed.* From:

http://www.somersny.com/Pages/SomersNY_Planning/amodelstormwaterprogram.pdf

⁴⁷ Strand Associates, Inc. (2009). City of Portage, Wisconsin Stormwater Utility Feasibility Study. From:

http://www.portagewi.gov/vertical/Sites/%7B889D2199-3A6C-48F9-AB94-DE81D288EE40%7D/uploads/2009_Stormwater_UTILITY_Feasibility_Study.pdf

⁴⁸ Lutzeyer, S., Perrin, C., and Taylor, L. Residents' willingness to pay to improve an impaired urban watershed. NC State University. From: https://drive.google.com/?usp=chrome_app#folders/0BxjtnOJhd9TUWkhiZks2c1d6UWs

⁴⁹ Strand Associates, Inc. (2009). City of Portage, Wisconsin Stormwater Utility Feasibility Study. From:

http://www.portagewi.gov/vertical/Sites/%7B889D2199-3A6C-48F9-AB94-DE81D288EE40%7D/uploads/2009_Stormwater_UTILITY_Feasibility_Study.pdf

⁵⁰ AECOM. (2010). City of Hamilton Stormwater Rate Feasibility Study. From: http://www.hamilton.ca/NR/rdonlyres/D091CBB9-6DE6-4315-BB5B-8F860ED7933C/0/Hamilton_StormRate_FinalReport_Jan2010.pdf

⁵¹ Campbell, W. et al. (2013). Western Kentucky University Stormwater Utility Survey.

⁵¹ http://www.wku.edu/engineering/civil/fpm/swsurvey/western_kentucky_university_swu_survey_2013.pdf
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Sample community outreach and education strategies

Successful community education and outreach programs look different across the country. The reasons for this are many, but the size of the community and the visibility of utility projects are important considerations. Here are three examples of communities with successful stormwater utility programs with outreach strategies that range from minimal outreach to extensive:⁵²

- **Valparaiso, Indiana** - No ongoing public education program. The community is small and most stormwater management projects are readily apparent to the community so an ongoing public education program to call attention to the stormwater utility's accomplishments is not necessary.
- **Fort Collins, Colorado** - The stormwater management program maintains a website, sends information concerning the stormwater program to residents, offers presentations to the community, and funds a watershed education program in the area school systems to educate the public about the need for stormwater and flood management.
- **South Burlington, Vermont** - They used a combination of extensive public outreach, input from a stakeholder advisory committee, and one-on-one meetings with key stakeholder groups to develop a stormwater utility proposal that was subsequently adopted by the City Council.⁵³
- **Griffin, Georgia** - The program is quite comprehensive. It began with a year and a half of public hearings, presentations, distribution of pamphlets, newspaper articles and community advertising to educate the public and gain support for the utility. City leaders were recruited into the project by the public works director. "There was little vocal opposition to the stormwater utility fee and the City Commission passed the ordinances that established it in the summer of 1997." The City of Griffin's stormwater program has kept its intensive public education program going strong through newspaper and journal articles, by keeping their website updated and by sending out brochures and newspaper inserts on the projects the utility fee has paid for.

Question #3: What questions and concerns do residents have about stormwater fees?

In researching the answer to this question we repeatedly found sources that said residents:

- are confused about the difference between a stormwater fee and a tax.^{54 55}
- unsure how they benefit or unaware of why it is needed.^{56 57 58}
- don't know why they now have to pay for something that used to be free.^{59 60}

Stormwater utility fee vs. tax

⁵² New England Environmental Finance Center. (2005). Stormwater Utility Fees: Considerations and Options for Interlocal Stormwater Working Group. From: <http://efc.muskie.usm.maine.edu/docs/StormwaterUtilityFeeReport.pdf>

⁵³ EPA. (2013). Evaluation of the Role of Public Outreach and Stakeholder Engagement in Stormwater Funding Decisions in New England: Lessons from Communities. From: <http://www.epa.gov/evaluate/pdf/water/eval-sw-funding-new-england.pdf>

⁵⁴ Kasperson, J. (2000). *The Stormwater Utility: Will It Work in Your Community?* Stormwater Journal. From:

⁵⁴ http://www.stormh2o.com/SW/Articles/The_Stormwater_UTILITY_Will_It_Work_in_Your_Community_212.aspx

⁵⁵ *Western Kentucky University Stormwater Utility Survey*. (2013). From:

⁵⁵ http://www.wku.edu/engineering/civil/fpm/swsurvey/western_kentucky_university_swu_survey_2013.pdf

⁵⁶ CMAP. (2013). *The value of stormwater utilities to local governments in the Chicago region*. From: http://www.cmap.illinois.gov/documents/10180/218071/Value_of_Stormwater_Uilities_Local_Govts_Chicago_Region-1-8-12.pdf/07b7b166-acd2-491f-bc40-079ae97e3549

⁵⁷ Kasperson, J. (2000). *The Stormwater Utility: Will It Work in Your Community?* Stormwater Journal. From:

⁵⁷ http://www.stormh2o.com/SW/Articles/The_Stormwater_UTILITY_Will_It_Work_in_Your_Community_212.aspx

⁵⁸ Carter, T. (2008). Stormwater Utility Handbook A Step-by-Step Guide to Establishing a Utility in Coastal Georgia. From:

⁵⁸ http://www.rivercenter.uga.edu/publications/pdf/coastal_stormwater_utility_2008_10_08_lo_res.pdf

⁵⁹ CMAP. (2013). *The value of stormwater utilities to local governments in the Chicago region*. From:

⁵⁹ http://www.cmap.illinois.gov/documents/10180/218071/Value_of_Stormwater_Uilities_Local_Govts_Chicago_Region-1-8-12.pdf/07b7b166-acd2-491f-bc40-079ae97e3549

⁶⁰ Carter, T. (2008). Stormwater Utility Handbook A Step-by-Step Guide to Establishing a Utility in Coastal Georgia. From:

⁶⁰ http://www.rivercenter.uga.edu/publications/pdf/coastal_stormwater_utility_2008_10_08_lo_res.pdf

While a stormwater utility fee is generally usage based and will achieve specific stormwater management goals benefiting the community, “the public at large may see only a ‘rain tax’ and one more attempt by local governments to take money from its citizens.”⁶¹

Why the need for stormwater management?

As a local stormwater management professional points out, “It’s a hard concept for the average customer to grasp—that stormwater needs to be managed. They see it as sort of a natural event and don’t always relate to the various services that it takes to operate a stormwater utility. I think the key point is to be very clear with customers about what the revenue goes for and to be articulate about the services that you’re delivering.”⁶²

Why the need for a fee?

Many citizens don’t know the impacts stormwater runoff has on the environment. This can be a major roadblock to acceptance of a stormwater utility. “Surveys have shown that local residents don’t know that stormwater runoff is a significant source of water pollution and that stormwater often receives no treatment before reaching a stream or river.”⁶³

The voice of the people

Research for a 2013 stormwater financing study for the City of Mississauga included speaking with community members and found that “while the stakeholders generally agreed with the importance of addressing the City’s capital and operation deficiencies, some of their issues raised included.”⁶⁴

- *The public engagement process was moving too quickly and there was insufficient consultation time*
- *Concerns from tax-exempt properties who traditionally did not have to pay for the City’s stormwater program*
- *The need to look into a credit program as part of this study*
- *Concerns that the study recommendations do not include credits for residential homeowners, but instead is looking into incentives/rebates*

Question #4: What questions and concerns do businesses have about stormwater fees?

According to the research we reviewed, businesses in communities considering a stormwater fee are concerned about how much the fee will cost them.

Results from a 2013 Stormwater Utility Survey reveal “companies who would be assessed large stormwater fees under a SWU will oppose the formation of utilities.”⁶⁵ They argue that:

- the fee will drive off businesses who will locate in other districts without fees.
- it will hurt the local economy because people will shop outside the district because prices will have to be higher for companies to pay the fees.

⁶¹ Campbell, W. et al. (2013). Western Kentucky University Stormwater Utility Survey. From:

⁶¹ http://www.wku.edu/engineering/civil/fpm/swusurvey/western_kentucky_university_swu_survey_2013.pdf

⁶² Kasperson, J. (2000). *The Stormwater Utility: Will It Work in Your Community?* Stormwater Journal. From:

⁶² http://www.stormh2o.com/SW/Articles/The_Stormwater_UTILITY_Will_It_Work_in_Your_Communit_212.aspx

⁶³ Carter, T. (2008). Stormwater Utility Handbook A Step-by-Step Guide to Establishing a Utility in Coastal Georgia. From:

⁶³ http://www.rivercenter.uga.edu/publications/pdf/coastal_stormwater_utility_2008_10_08_lo_res.pdf

⁶⁴ AECOM. (2013). *City of Mississauga Stormwater Financing Study*. From:

⁶⁴ http://www7.mississauga.ca/Documents/TW/Environment/RPT_MississaugaStormwaterFinancingStudy_Apr2013_Final.pdf

⁶⁵ Campbell, W. et al. (2013). Western Kentucky University Stormwater Utility Survey. From:

⁶⁵ http://www.wku.edu/engineering/civil/fpm/swusurvey/western_kentucky_university_swu_survey_2013.pdf

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Concerns listed in other sources include:

- Business and tax exempt property owners are much more concerned about a user fee structure that would have them absorb additional costs.⁶⁶
- Tax exempt properties would experience unique and perhaps profound challenges under a user fee scenario, as revenue generation opportunities are limited⁶⁷
- Opponents of the fees sometimes argue that requiring schools to pay a stormwater fee is “double taxation” in the sense that taxpayers fund the school system and so are ultimately also responsible for the stormwater fee as well.⁶⁸
- Religious institutions, on the other hand, may argue that their exemption from local taxes also qualifies them to avoid the stormwater fee.⁶⁹
- Concerns from the commercial and industrial sector with shifting the cost of the stormwater program from residential to non-residential class.⁷⁰

Concerns from non-profit organizations such as churches have been raised. Once church in Charlottesville, Virginia “found the potential stormwater utility annual fee ... comes to \$7,934.40 a year for the first three years.” The cost is a concern because they have a low operating budget and the cost is close to that of some of its programs. For example they run a soup kitchen at an annual “cost of about \$8,900.”⁷¹

Question #5: What questions do local governments have before introducing stormwater fees?

How do other communities go about setting up a stormwater utility fee?

According to our research, before introducing stormwater fees, local governments often begin by talking to neighbouring communities about their experiences introducing stormwater fees.⁷² Why? They want to know what steps were taken and what worked and what didn't. Research conducted by WKU observes that “utilities ... seem to form in clusters suggesting that after one community forms a utility, it becomes easier for surrounding communities to form them.”⁷³

⁶⁶ AECOM. (2010). *City of Hamilton Stormwater Rate Feasibility Study*. From: http://www.hamilton.ca/NR/rdonlyres/D091CBB9-6DE6-4315-BB5B-8F860ED7933C/0/Hamilton_StormRate_FinalReport_Jan2010.pdf

⁶⁷ AECOM. (2010). *City of Hamilton Stormwater Rate Feasibility Study*. From: http://www.hamilton.ca/NR/rdonlyres/D091CBB9-6DE6-4315-BB5B-8F860ED7933C/0/Hamilton_StormRate_FinalReport_Jan2010.pdf

⁶⁸ Chicago Metropolitan Agency for Planning. (2013). *The value of stormwater utilities to local governments in the Chicago Region*. From:

⁶⁸ http://www.cmap.illinois.gov/documents/10180/218071/Value_of_Stormwater_Utilities_Local_Govts_Chicago_Region-1-8-12.pdf/07b7b166-acd2-491f-bc40-079ae97e3549

⁶⁹ Chicago Metropolitan Agency for Planning. (2013). *The value of stormwater utilities to local governments in the Chicago Region*. From:

⁶⁹ http://www.cmap.illinois.gov/documents/10180/218071/Value_of_Stormwater_Utilities_Local_Govts_Chicago_Region-1-8-12.pdf/07b7b166-acd2-491f-bc40-079ae97e3549

⁷⁰ AECOM. (2013). *City of Mississauga Stormwater Financing Study*. From: http://www7.mississauga.ca/Documents/TW/Environment/RPT_MississaugaStormwaterFinancingStudy_Apr2013_Final.pdf

⁷¹ NBC29.com. (2013). *Charlottesville Churches Voice Concerns Over Stormwater Fee*. From:

<http://www.nbc29.com/story/21229447/charlottesville-churches-voice-concerns-over-stormwater-fee>

⁷² Carter, T. (2008). *Stormwater Utility Handbook A Step-by-Step Guide to Establishing a Utility in Coastal Georgia*. From:

⁷² http://www.rivercenter.uga.edu/publications/pdf/coastal_stormwater_utility_2008_10_08_lo_res.pdf

⁷³ Campbell, W. et al. (2013). *Western Kentucky University Stormwater Utility Survey*. From:

⁷³ http://www.wku.edu/engineering/civil/fpm/swusurvey/western_kentucky_university_swu_survey_2013.pdf
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The second step they take is to conduct a feasibility study. Within the study they seek answers to the questions that come up during stormwater fee development discussions. Below are example questions and topics from feasibility studies conducted for several proposed stormwater utilities.

Questions from the City of Thornton to the 23 Colorado Front Range municipalities that already have stormwater utilities.⁷⁴

1. When did the 23 municipalities adopt their stormwater utilities?
2. Are the fees a flat rate or parcel based rate?
3. If the fee is a parcel based rate using impervious area, how often are the impervious areas updated or validated?
4. How do the fee structures distinguish between residential, commercial, industrial, and other properties?
5. What are common impervious area ratios for residential, commercial, industrial, and mobile homes?
6. Is the same rate charged across the entire city or are the rates separated by watershed?
7. How often are the fees billed?
8. Are the fees billed separately or with the utility bill?
9. How are the fees enforced?
10. What current stormwater activities within the city could currently be funded by a utility?
11. What are common exemptions or exclusions to the fee?
12. How are the stormwater utilities structured (dispersed or a single division)?
13. Based upon the operations, maintenance, and capital project costs, what are the approximate user costs of the stormwater utility fee?

Working at a multijurisdictional scale, Allen County was looking for the following information in their MS4 financing feasibility study:⁷⁵

1. Determine funding currently available for stormwater quality related work by jurisdiction;
2. Determine additional funds needed to comply with new regulations;
3. Assess the public's willingness to pay new fees for new stormwater programs;
4. Identify alternative sources of funding;
5. Estimate potential revenues from preferred sources.

A feasibility study for the City of Portage, Wisconsin reviewed the following topics of interest to the city:⁷⁶

1. A general overview of current stormwater management practices and funding in Portage.
2. Background information on stormwater utilities and other funding alternatives.
3. Results of an impervious area analysis of portage and estimation of equivalent runoff units (ERUs).
4. Identification of possible stormwater utility responsibilities.
5. Identification of a possible user fee rate structure based on the current city budget.
6. Evaluation of potential impacts on select properties.

⁷⁴ Henry, B. (2012). *Creation of a stormwater utility in the City of Thornton*. From: <http://www.ucdenver.edu/academics/colleges/SPA/capstone/Documents/Capstone%20Example%20Henry%20Spring%202012.pdf>

⁷⁵ Palmer, J., Lindsey, D., and Sapp, G. (2005). *Allen County MS4 Stormwater Finance*. Center for Urban Policy and the Environment. From: <http://policyinstitute.iu.edu/uploads/PublicationFiles/05-C25Allen%20County%20MS4%20Storm%20H2O.pdf>

⁷⁶ Strand Associates, Inc. (2009). *City of Portage, Wisconsin Stormwater Utility Feasibility Study*. From:

http://www.portagewi.gov/vertical/Sites/%7B889D2199-3A6C-48F9-AB94-DE81D288EE40%7D/uploads/2009_Stormwater_UTILITY_Feasibility_Study.pdf
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A list of lessons learned

A city or regional authority only creates a utility once, but the engineering firms they work with do it multiple times at multiple scales. Below is a comprehensive list of lessons learned compiled as part of a feasibility report for a community by a large international engineering and project management firm:⁷⁷

1. Recognize that one size does not fit all.
2. Collaborate with stakeholders and promote communication.
3. Define the champion and home of the program.
4. Clearly define the health, safety and welfare benefits.
5. Clearly define the cost of each program element
6. Allocate level of service by geography
7. Pragmatically address inter-jurisdictional issues within watersheds.
8. Keep abreast of new legislation and initiatives
9. Provide clear documentation for customer fees.
10. Establish policies to address private property issues.

⁷⁷ AECOM. (2010). City of Hamilton Stormwater Rate Feasibility Study. From: http://www.hamilton.ca/NR/rdonlyres/D091CBB9-6DE6-4315-BB5B-8F860ED7933C/0/Hamilton_StormRate_FinalReport_Jan2010.pdf
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