
2014 STORMWATER UTILITY SURVEY

A BLACK & VEATCH REPORT



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INTRODUCTION

Welcome to the 2014 Black & Veatch Stormwater Utility Survey. We initiated the bi-annual survey in 1991 to assess and share insights on stormwater management, financing, governance and other evolving trends. We have continued that tradition, and this year we are proud to share our tenth stormwater utility survey.

This survey reports on the continuing trends in stormwater utility organization, planning, and financing; the persistent funding challenges; the issues that utility managers perceive to be the most important; and the priorities that drive capital investment decisions.

In stormwater industry parlance, the phrase “Stormwater Utility” refers to three primary elements, namely, a Program that defines stormwater operations and management, an Organization that is responsible for governance, and a Funding approach that provides dedicated financing.

Stormwater is increasingly beginning to be perceived as a resource to be protected and managed similar to drinking water resources. To do so effectively, the Program, Organization, and Funding aspects have to be aligned and holistically addressed, as it is done in the water and wastewater sectors of the utility industry.

To assess the current trends in all these three elements, and especially the funding aspect, this survey was only administered to those municipalities and/or entities that already have established stormwater user charge programs. A “stormwater user charge” is similar to a water or sewer user charge in that the user fee or charges have some key characteristics including the following:

- The charges are assessed for stormwater service that is provided, and hence has a reasonable nexus to the costs incurred in providing that service;
- The revenues from stormwater charges are dedicated to stormwater management, in other words to the purpose for which it is assessed;
- The charges assessed are proportional to the property’s contribution and impact of stormwater runoff;
- The charges assessed are “voluntary” in that the user has the opportunity to limit the use of the service; and
- The fee or charge is non-discriminatory.

SURVEY HIGHLIGHTS

The survey results again affirm the following key facts about the state of the stormwater utility industry:

Prevalence of Stormwater Utilities:

There continues to be a prevalence of individual municipally governed stormwater utilities rather than regional stormwater authorities. Consequently, even though stormwater issues such as surface water quality and habitat degradation typically do not follow jurisdictional boundaries, municipalities are limited to focusing on and managing stormwater issues only within their geographical jurisdictional authority.

Stormwater Industry Priorities:

In this year's survey, we added a new question on industry priorities to garner perspectives on what utility managers perceive to be the issues of importance in the stormwater industry. We asked, and utility managers responded! The three (3) issues that respondents ranked in the order of importance are: (i) availability of adequate funding, (ii) enhancing public awareness and support for stormwater management, and (iii) management of the expanding regulatory requirements.

A highlight of this response is that this is the first time since the inception of this bi-annual survey, that "public awareness and support" has been cited as the second most important issue. These stormwater issues of importance that respondents cited are closely aligned with those from the water industry, which we recently published in our "2014 *Strategic Directions: U.S. Water Industry*".

Infrastructure Investment Drivers:

In response to our new question on what drives infrastructure investment planning and decisions, utility managers responded by selecting Regulatory Compliance; Flood Control; and Safety and Reliability as the top three drivers in the order listed.

Proactive Planning:

Balancing the competing goals of achieving regulatory compliance, providing the level of service that the community desires, and maintaining affordable rates requires effective planning and innovative approaches. This balancing act applies not only to stormwater utilities but also to wastewater utilities, and especially to those communities that have combined sewer systems. Therefore, in this survey, we continued to assess the type of integrated planning that utilities engage in. The survey indicates that while a majority of the participants has developed individual planning documents such as stormwater master plans and stormwater management plans, only 12% of the respondents have developed *integrated wet weather management plans* to address water resources issues more comprehensively.

Funding Adequacy:

Lack of adequate funding continues to plague even those municipalities that have a dedicated stormwater user fee. Out of a total of 78 respondents that participated in this survey and indicated having a stormwater user fee, 62% did not have adequate funding to meet most of their utility needs. The survey continues to highlight a growing funding gap. Despite funding inadequacy, 31% of the respondents indicated not having any rate increases since 2004, which can further exacerbate the funding gap.

The interdependencies among service level needs, regulatory requirements, asset management, innovation, and financing significantly increase the complexity of stormwater utility management. To effectively address multiple needs and challenges, utilities have to engage in more holistic solutions that include integrated planning, green infrastructure solutions, a strong public awareness and education campaign, public-private partnerships, and regional collaborations to achieve cost efficiencies and regional solutions.

SURVEY OVERVIEW

The 2014 Stormwater Utility Survey reports the results of six functional areas:

Section 1: Organization and Operations

Provides a profile of the respondents including population served, size of service areas, the characteristics of the service area, and type of utility governance.

Section 2: Planning

Provides insights in to what utility managers perceive to be most important industry issues and the infrastructure investment drivers. This section also highlights the types of permit requirements that utilities have to comply with and the types of planning utilities have engaged in to address stormwater management.

Section 3: Finance and Accounting

Reviews stormwater utility revenues, expenditures, sources of capital improvement and O&M financing, and the adequacy of stormwater utility funding to meet utility obligations.

Section 4: Stormwater Rate Structure and Billing

Evaluates the types of costs recovered through user fees, the fee methodology used in setting rates, the rate structures, and the average monthly residential rate of each utility that participated in the survey. Information on the billing frequency and types of exemptions and discounts that utilities offer, and insights on legal challenges are also provided.

Section 5: Stormwater Credits and Incentives

Offers insights in to the types of credits, criteria used in offering credits, credits for "green initiatives", and any innovative programs such as credits trading and banking.

Section 6: Public Information/Education

Assesses the level of importance respondents attribute to public information/education and the methods of education and multi-media sources used in educating and in disseminating information.

PROFILE OF RESPONDENTS

This year's nationwide survey was conducted online during March and April 2014. A total of 78 participants completed the online questionnaire.

- The participants spanned 25 states. All of these participants fund stormwater management in whole or in part through stormwater user fees.
- This year's participants reflect a much different mix of utilities with a larger participation from smaller utilities, and 25 first time participants and 53 repeat participants.
- Eighty seven percent of the respondents serve a city, rather than a county or region.
- The population served by the respondents ranges from 9,785 (Cottage Grove, OR) to 1.5 million people (Philadelphia, PA); the areas served varies from 3 to 1,020 square miles.
- For those utilities that base charges on gross property area, an Equivalent Residential Unit (ERU) ranged from 2,105 square feet to 22,500 square feet of total parcel area, with a median of 8,000 square feet.
- For those utilities that base charges on impervious area, an ERU ranged from 794 square feet to 7,500 square feet of impervious area, with a median of 2,368 square feet.

COMPARATIVE RESULTS

Black & Veatch has been assessing stormwater utility financing and management trends since 1991 through the use of this bi-annual, nationwide survey. Comparisons of current and prior survey results provide insights into possible industry changes. Please note, however, that these comparisons are not necessarily indicative of trends, because the survey respondents may be different between the current and prior surveys.

It is our hope that the information provided in this report will be a valuable resource to those involved in the stormwater industry. We welcome your questions and comments regarding this survey report and/or Black & Veatch services. You can reach us at **Stormwater@bv.com**.

ORGANIZATIONAL INFORMATION

Nationwide, stormwater management responsibility resides with individual municipal entities rather than with a multi-jurisdictional stormwater authority. The traditional approach of each municipality managing its own stormwater system and obligations affords greater asset ownership, budget control, and program flexibility to meet service level needs. However, such an approach also impacts economies of scale, creating operational inefficiencies, funding challenges, and significant disparities in stormwater management standards, even within a small geographic region or within a watershed.

This survey affirms the continuing trend of stormwater user fee programs (“utility”) being more prevalent in cities rather in counties or special districts. Eighty seven percent of the participants reported serving a city jurisdictional area, with three participants representing a regional authority. These trends have remained fairly consistent since 2007.

This year’s survey participants included a greater participation from smaller stormwater utilities when compared with our previous 2012 survey. While the median number of stormwater customers at the participating utilities is 36,000, which is fairly consistent with the previous stormwater surveys, the percentage of participants that identified themselves as stand-alone utilities has increased from 46% to 55%.

FIGURE 1
FOR MS4 PERMITTING PURPOSES ARE YOU CLASSIFIED AS: *(Select one)*

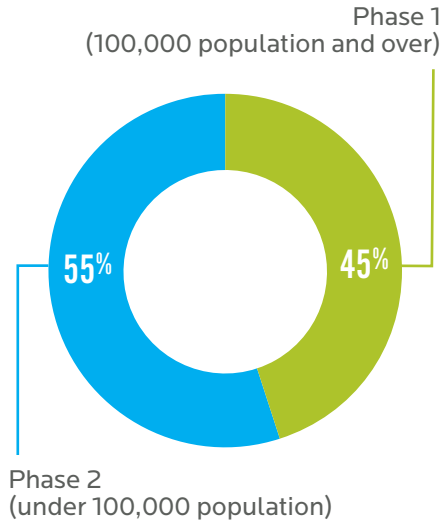


FIGURE 2
WHAT JURISDICTIONAL AREA IS YOUR STORMWATER UTILITY RESPONSIBLE FOR? *(Select one)*

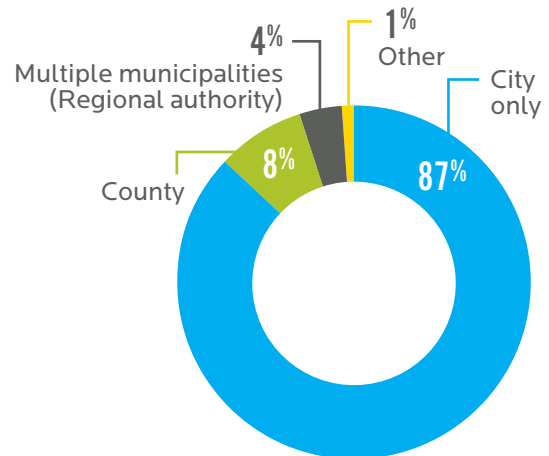


FIGURE 3

WHAT IS THE CHARACTERISTIC OF YOUR SERVICE AREA? (Select one)

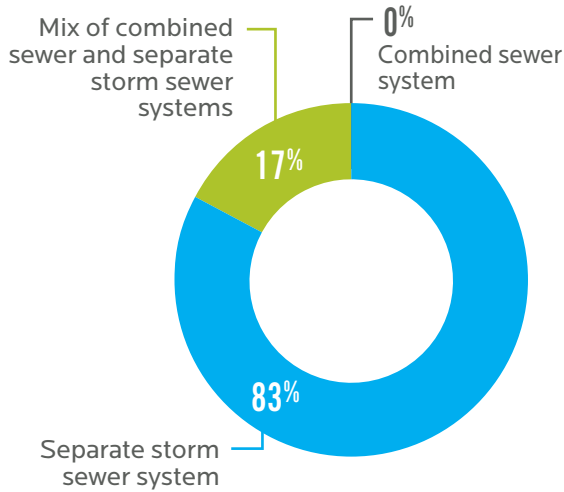


FIGURE 4

IF YOU SELECTED “MIX OF COMBINED SEWER AND SEPARATE STORM SEWER SYSTEMS” IN THE PREVIOUS QUESTION, INDICATE THE PERCENTAGE OF COMBINED SEWER VERSUS SEPARATE STORM SEWER SERVICES.

Combined sewer	Over 75%	50% – 75%	25% – 50%	Less than 25%
Separate storm sewer	Less than 25%	25% – 50%	50% – 75%	Over 75%
Number of utilities	0	4	5	4
Percentage*	0%	31%	38%	31%

*Based on number of utilities that selected “Mix of Combined Sewer and Separate Storm Sewer Systems” in the previous question.

FIGURE 5

IS YOUR UTILITY UNDER CONSENT ORDER FOR COMBINED SEWER OVERFLOW ISSUES?

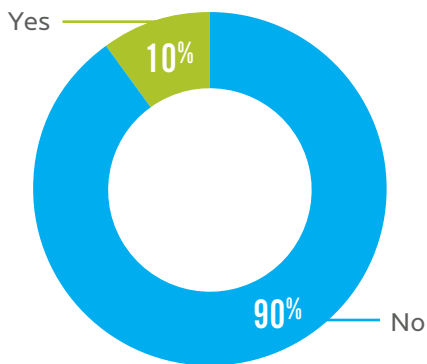


FIGURE 6

PLEASE INDICATE HOW YOUR CURRENT STORMWATER OPERATIONS ARE GOVERNED. (Select one)

	2014	2012
Stand-alone stormwater utility	55%	46%
Combined with Department of Public Works (Nonwater/wastewater utility)	25%	28%
Combined with water and/or wastewater utility	19%	21%
Other (Multiple city departments)	1%	5%

PLANNING

Utilities currently face the challenge of complying with multiple discharge permits including the National Pollutant Discharge Elimination System (NPDES) and the Municipal Separate Storm Sewer System (MS4) permits to meet the Clean Water Act (CWA) obligations. The survey indicates the continuing trend of municipalities generally focusing on individual permit requirements, rather than comprehensively planning for multiple permit obligations, even though many of these permits have overlapping requirements. Integrated strategic and tactical planning enables municipalities to effectively leverage available resources to fulfill multiple regulatory requirements and public needs concurrently.

This survey finds that while 73% of the respondents have to comply with both NPDES and MS4 permit requirements, only 12% of respondents have developed any type of integrated wet weather or water resources plan.

Especially with a growing funding gap where utilities need to consistently do more with less resources, utilities need to proactively develop and deploy integrated planning and foster the idea of “one water”. Such an approach would better position the utility to achieve the triple bottom line - economic, environmental, and community benefits.

With respect to stormwater rate setting, in the case of combined sewer systems, utilities continue to grapple with the policy issue of whether to allocate a portion of the combined sewer system and CSO mitigation O&M and

capital costs to the stormwater utility. The survey indicates that while some CSO communities, such as Philadelphia, allocate a portion of the combined sewer system costs to stormwater utility, many others do not. Such differences in methodology directly impact the magnitude of stormwater rates that utilities define.

FIGURE 7
WHAT REGULATORY PERMIT REQUIREMENTS DO YOU CURRENTLY HAVE TO COMPLY WITH?

MS4 permit	91%
NPDES permit	79%
Total maximum daily load (TMDL)	50%
CSO program	14%
Other	4%

Percentage based on number of utilities that responded to the question.

FIGURE 8
WHAT TYPES OF PLANS HAS YOUR UTILITY DEVELOPED?
(Select all that apply)

Stormwater/watershed management plan	73%
Stormwater master plan	72%
Long-term control plan (LTCP)	17%
Integrated wet weather management plan (to support wastewater and stormwater requirements)	12%
Integrated water resources plan	9%
Other	1%

Percentage based on number of utilities that responded to the question.

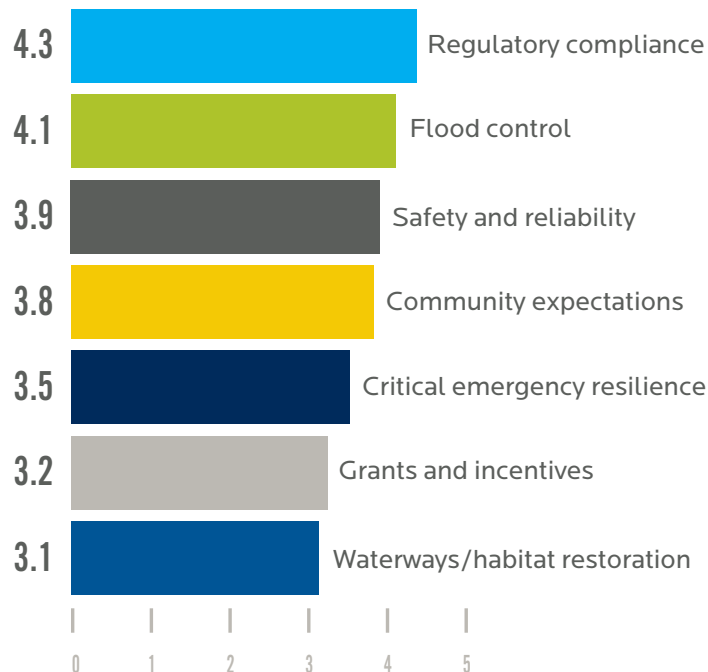
FIGURE 9

PLEASE RANK ON A SCALE OF 1 TO 5, THE IMPORTANCE OF EACH OF THE ISSUES LISTED BELOW TO THE STORMWATER INDUSTRY. (1: Least important; 5 = Most important)



FIGURE 10

PLEASE RANK ON A SCALE OF 1 TO 5, HOW THE FOLLOWING ISSUES DRIVE INFRASTRUCTURE INVESTMENT PLANNING AND DECISIONS WITHIN YOUR STORMWATER UTILITY. (1: Very weak; 5 = Very strong)



FINANCING AND ACCOUNTING

A user fee funding mechanism typically provides revenue stability, certainty, and a dedicated funding stream. However, even in a user fee funded program, diligent annual financial planning and rate adjustments are necessary to maintain revenue sufficiency, build financial resiliency to meet changing needs, and provide for long term financial viability. In the current environment, utilities are under pressure to keep rates low while maintaining or enhancing the level of service.

Stormwater utilities continue to fund capital program primarily through cash financing as opposed to debt financing. As Figure 13a indicates, 85% of the participants indicate cash financing as the primary source of capital funding, and the trend of funding capital program through user fee generated cash revenues seems to continue. In the absence of a balanced funding mix of debt and cash financing, utilities that rely solely on cash financing of capital program, face capital funding challenges if they are unable to raise the rates. Consistent with the last survey, only 32 % of the participants indicate funding is adequate for meeting most needs. In this

survey that 17% of the participants indicate that funding is not sufficient to meet even the "most urgent" needs indicating a growing funding adequacy gap at a time when regulatory requirements and asset management needs are increasing..

Utilities need to engage in more robust and continuous public education to enhance understanding of the stormwater management needs and financial issues in conjunction with integrated planning. These measures will likely help utilities chart a more financially viable path and enhance equity in cost recovery. Ninety six percent of the utilities reported having a user fee that is supported by a State enabling legislation.

FIGURE 11
PLEASE INDICATE THE PERCENTAGE OF YOUR STORMWATER BUDGET THAT IS ATTRIBUTABLE TO CSO MITIGATION ISSUES. (Select one)

0%, stormwater budget does not include expenditures related to combined sewer overflow (CSO) issues	46%
1% – 10%	23%
11% – 20%	16%
21% – 30%	0%
31% – 50%	0%
Over 50%	15%

FIGURE 12
WHAT IS THE ESTIMATED 2014 ANNUAL STORMWATER CAPITAL IMPROVEMENT PROGRAM BUDGET?

Minimum	\$30,000
Maximum	\$72,000,000
Average	\$7,082,127

FIGURE 13
PLEASE PROVIDE AN APPROXIMATE PERCENTAGE OF FUNDING FROM EACH SOURCE.

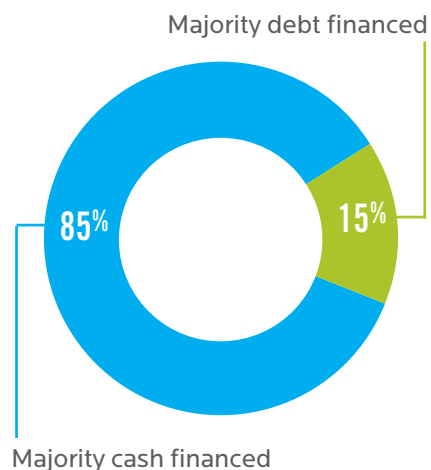


FIGURE 13A

PLEASE PROVIDE AN APPROXIMATE PERCENTAGE OF FUNDING FROM ONE OR MORE OF THE FOLLOWING SOURCES THAT ARE USED TO FINANCE YOUR UTILITY'S STORMWATER CAPITAL IMPROVEMENT PROGRAM (CIP).

Debt financed		15%	Cash financed		85%
Stormwater revenue bonds	17%		Stormwater user fees	92%	
General obligation (tax) bonds	8%		Grants	27%	
Sales tax bonds	1%		Ad valorem taxes	4%	
Combined stormwater/other bonds	1%		Permitting and other taxes	18%	
Benefit district bonds	0%		Sales taxes	5%	
Other debt	5%		Special tax districts	8%	
			New development impact fees	8%	
			Other cash	12%	

Percentage based on number of utilities that responded to the question.

FIGURE 14

PLEASE PROVIDE AN APPROXIMATE PERCENTAGE OF REVENUE FROM ONE OR MORE OF THE FOLLOWING SOURCES.

	Over 75%	50% – 75%	25% – 50%	Less than 25%
Stormwater user fees	87%	5%	5%	3%
Taxes	0%	13%	13%	74%
Grants	28%	0%	43%	29%
Other	5%	5%	0%	90%

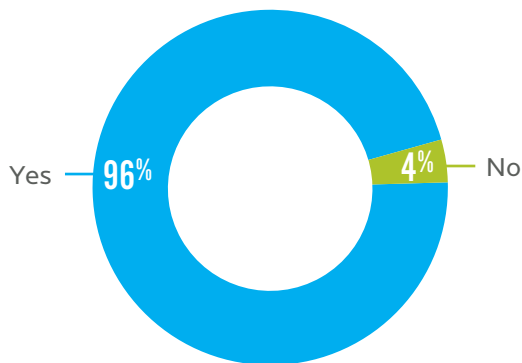
FIGURE 15

PLEASE INDICATE THE LEVEL OF ADEQUACY OF AVAILABLE STORMWATER FUNDING.

	2014	2012	2010	2007
Adequate to meet all needs	6%	18%	7%	8%
Adequate to meet most needs	32%	31%	36%	39%
Adequate to meet most urgent needs	45%	40%	47%	40%
Not adequate to meet urgent needs	17%	11%	10%	13%

FIGURE 16

DOES YOUR STATE HAVE ENABLING LEGISLATION THAT AUTHORIZES MUNICIPALITIES TO CHARGE A STORMWATER USER FEE?



STORMWATER USER FEES AND BILLING

A user fee needs to reflect a reasonable nexus between the costs incurred in providing services and the magnitude of charges that are defined for the rate payer. As it is not practical to measure stormwater runoff, stormwater charges are established based on surrogate measures such as a property's pervious and/or impervious areas. Over 90% of the participants have indicated that they use actual and/or effective impervious area as the basis of charges.

As service levels may differ among the various geographical areas, utilities often have to contend with the policy issue of whether to set rates that reflect service level differences. While zone-based rates may provide for equity in cost recovery, they can be administratively more burdensome and have the potential to create economic disparities among zones.

With respect to rate setting, affordability is key to enabling stakeholder buy-in. The survey indicates that a majority of the participants (78%) do not offer any type of discounts, and only 11% offer low income discount. The survey also indicates that 30% of the participants had not adjusted the rates in over 10 years. Instead of having a long hiatus

from implementing requisite rate adjustments, utilities should consider the feasibility of implementing consistent rate adjustments to maintain financial viability while concurrently exploring mechanisms such as low income assistance programs to help with affordability.

The risk of legal challenges could be a potential barrier to establishing stormwater user fees. Seventy-eight percent of the utilities that responded in this survey had not faced any legal challenges to their fees. Of those that faced a legal challenge, the challenge primarily seems to have been either due to lack of authority to assess fees or on the grounds of constitutionality.

FIGURE 17
PLEASE INDICATE THE YEAR WHEN YOUR UTILITY'S CURRENT STORMWATER USER RATE SCHEDULE BECAME EFFECTIVE.

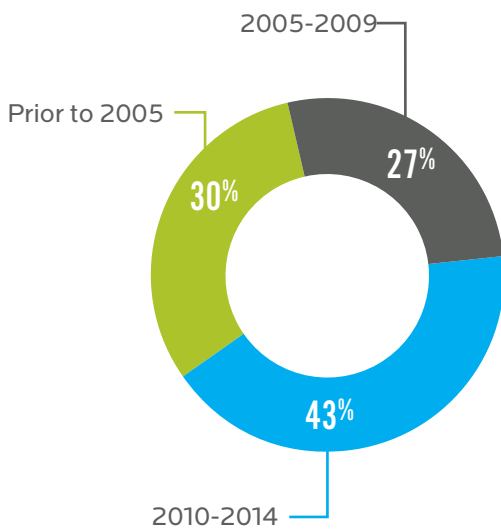
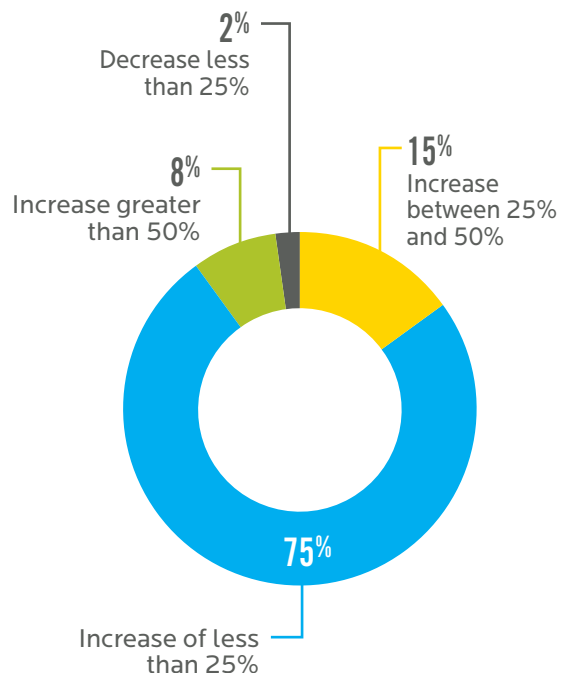


FIGURE 18
WHAT WAS THE MAGNITUDE OF YOUR UTILITY'S LAST CHANGE IN FEES?



Percentage based on number of utilities that responded to the question.

FIGURE 19

IS YOUR STORMWATER USER FEE BASED ON SOME FORM OF PARCEL AREA SUCH AS GROSS AND/OR IMPERVIOUS AREA?

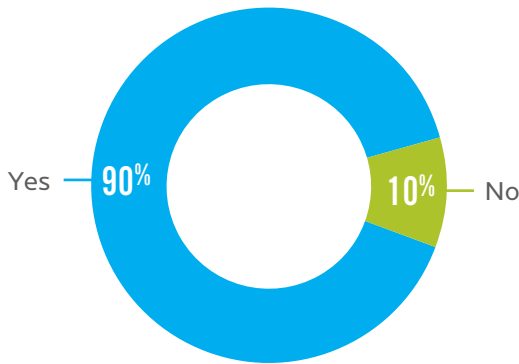
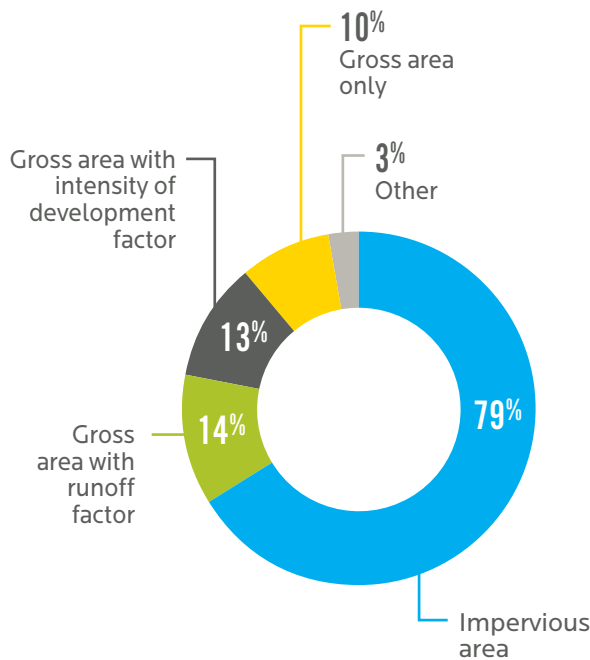


FIGURE 20

WHAT IS THE BASIS FOR CALCULATING YOUR PARCEL AREA BASED STORMWATER USER FEES?

(Select all that apply)



84% of respondents use only one method.

FIGURE 21

WHAT IS YOUR UTILITY'S AVERAGE SINGLE FAMILY RESIDENTIAL PARCEL SQUARE FOOTAGE? (Include attached residential up to four dwelling units)

Average Gross Area	Square feet
Minimum	2,105
Maximum	22,500
Median	8,000
Average Impervious Area	Square feet
Minimum	794
Maximum	7,500
Median	2,368

FIGURE 22

WHAT TYPE OF RATE STRUCTURE DOES YOUR UTILITY HAVE FOR THE SINGLE FAMILY RESIDENTIAL PARCELS?

(Select all that apply)

Uniform flat fee	67%
Tiered rates	28%
Individually calculated	6%

FIGURE 23

IF YOU HAVE A TIERED RESIDENTIAL RATE STRUCTURE, PLEASE INDICATE THE TOTAL NUMBER OF TIERS.

Percentage based on number of utilities that indicated they had tiered rates.

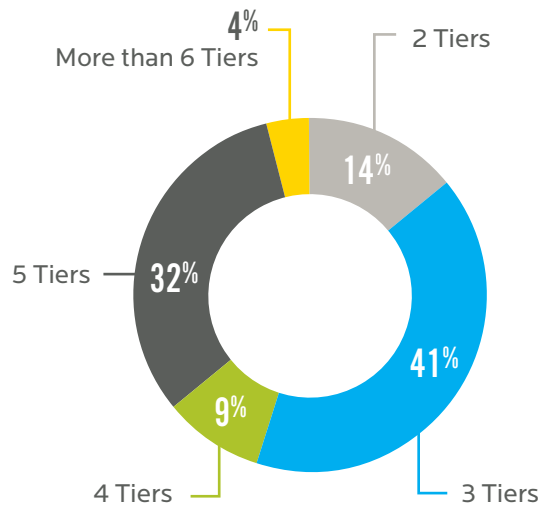


FIGURE 24

IF YOU HAVE A TIERED RESIDENTIAL RATE STRUCTURE, WHAT IS THE BASIS OF THE TIERS? (Select one)

Impervious area tiers only	59%
Gross area tiers only	32%
Tiers for impervious area and gross area	9%

FIGURE 25

DOES YOUR STORMWATER RATE STRUCTURE INCLUDE A SEPARATE BILLING/COLLECTION OR SERVICE CHARGE?

Yes	12%
No	88%

FIGURE 26

AVERAGE MONTHLY SINGLE-FAMILY RATE

City/County	State	2014 Average Monthly Residential Charge
Seattle	WA	26.58
Fort Collins	CO	14.26
Philadelphia	PA	13.45
Everett	WA	13.19
Longmont	CO	13.05
Appleton	WI	12.92
Naples	FL	12.80
Lubbock	TX	12.00
Palo Alto	CA	11.99
Orlando	FL	11.00
Gresham	OR	9.84
Bremerton	WA	9.83
Austin	TX	9.20
Loveland	CO	9.10
Hamilton County	TN	9.00
Pierce County	WA	8.83
Gainesville	FL	8.56
Aurora	CO	8.16
Edgewater	FL	8.00
Charlotte	NC	7.89
Cottage Grove	OR	7.47
Denver	CO	7.38
Hampton	VA	6.99
St. Paul	MN	6.83
Titusville	FL	6.62
Duluth	MN	6.08
Charleston	SC	6.00
Lakeland	FL	6.00
Cocoa Beach	FL	6.00
Oakland Park	FL	6.00
Cocoa	FL	5.75
Wooster	OH	5.75
Bloomington	MN	5.72
Dubuque	IA	5.60
Olathe	KS	5.55
Tulsa	OK	5.43
Dayton	OH	5.42
Fort Worth	TX	5.40
Satellite Beach	FL	5.33

City/County	State	2014 Average Monthly Residential Charge
Roseburg	OR	5.00
San Clemente	CA	5.00
Cedar Rapids	IA	4.90
Northern Kentucky Sanitation District No. 1	KY	4.80
Griffin	GA	4.79
Niceville	FL	4.51
Haines City	FL	4.50
Topeka	KS	4.25
Summerville	SC	4.00
Lawrence	KS	4.00
Raleigh	NC	4.00
Richmond	VA	3.75
Ellicott City	MD	3.75
Wichita Falls	TX	3.55
Cincinnati	OH	3.54
Mesquite	TX	3.50
Billings	MT	3.01
Arnold	MO	3.00
Forest Park	OH	3.00
Fayetteville	NC	3.00
McKinney	TX	2.75
Clark County	WA	2.75
Modesto	CA	2.73
Littleton	CO	2.50
Contra Costa County	CA	2.50
Asheville	NC	2.34
Overland Park	KS	2.00
Frisco	TX	2.00
Lakewood	CO	1.98
Moline	IL	1.94
Santa Clarita	CA	1.87
Santa Cruz	CA	1.75
Shelby County	TN	1.50
Springfield	OH	1.30
Elkhart	IN	1.25
Columbia	MO	1.15
Hillsborough County	FL	1.00
Omaha	NE	0.64
St. Louis	MO	0.24

FIGURE 27

IN YOUR STORMWATER RATE STRUCTURE, DO YOU HAVE RATES THAT DIFFER BY SERVICE AREAS/ZONE OR WATERSHEDS?

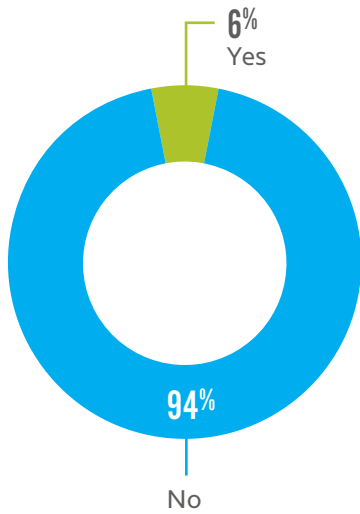


FIGURE 28

ARE ONE-TIME IMPACT/CAPITAL RECOVERY FEES APPLIED TO NEW STORMWATER UTILITY CUSTOMERS OR NEW DEVELOPMENTS?

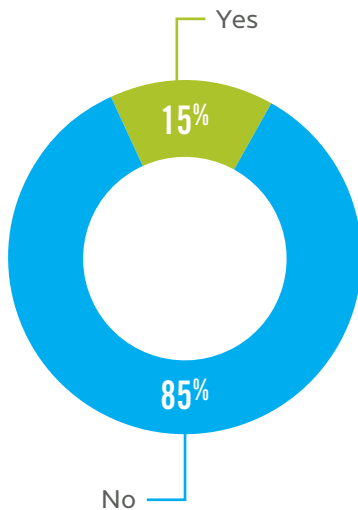


FIGURE 29

HOW FREQUENTLY DOES YOUR UTILITY UPDATE CUSTOMER PARCEL INFORMATION, SUCH AS CUSTOMER CLASSES AND GROSS AND IMPERVIOUS AREAS SPECIFIC TO STORMWATER BILLING? (Select One)

No specified frequency/as needed	70%
Annually	14%
Monthly	9%
Quarterly	4%
Other	3%

FIGURE 30

HOW ARE STORMWATER USER FEES BILLED? (Select One)

Included with Other Utility Bill (Water/Sewer/Electric/Gas)	71%
Included with tax bills	24%
Separate stormwater bill	5%

FIGURE 31

DOES YOUR UTILITY OFFER ANY OF THE FOLLOWING STORMWATER DISCOUNTS? (Select all that apply)

No discounts offered	78%
Low-income discount	11%
Other	8%
Elderly/senior citizen discount	7%
Educational institutions discount	5%
Disabled discount	1%

FIGURE 32

WHAT OF THE FOLLOWING CLASSES OF PROPERTIES ARE CURRENTLY EXEMPT FROM STORMWATER USER FEES? (Select all that apply)

Public streets/roads/median /public-right-of-way	63%
Undeveloped land	54%
Rail rights-of-way	41%
Public parks	27%
Government	24%
Agricultural land	21%
School districts	19%
Cemeteries	13%
Colleges/universities	12%
No properties are exempt	12%
Other	10%
Airports	9%
Religious organizations	5%
Direct discharge to water body	3%

FIGURE 33
WHO IS RESPONSIBLE FOR PAYMENT OF STORMWATER USER FEES? (Select One)

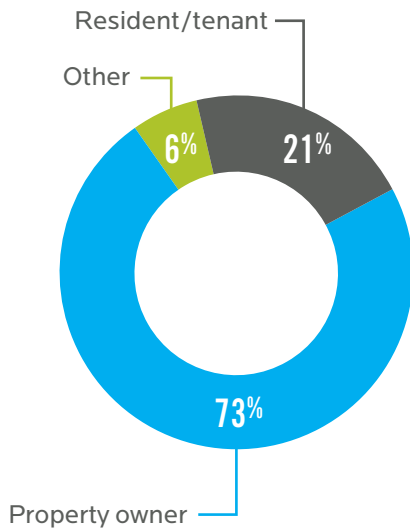


FIGURE 34
HOW IS PAYMENT ENFORCED? (Select all that apply)

Water/electric service shutoff	51%
Lien on property	47%
Collection agency	27%
Other	10%
Sheriff's sale	4%

FIGURE 35
HAVE YOUR STORMWATER USER FEES EVER FACED A LEGAL CHALLENGE?

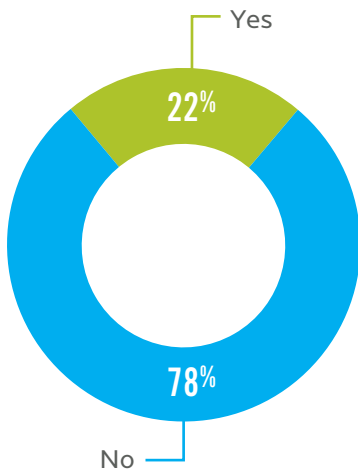


FIGURE 36
PLEASE INDICATE THE CUSTOMER/CLASS THAT CHALLENGED YOUR STORMWATER USER FEE. (Select all that apply)

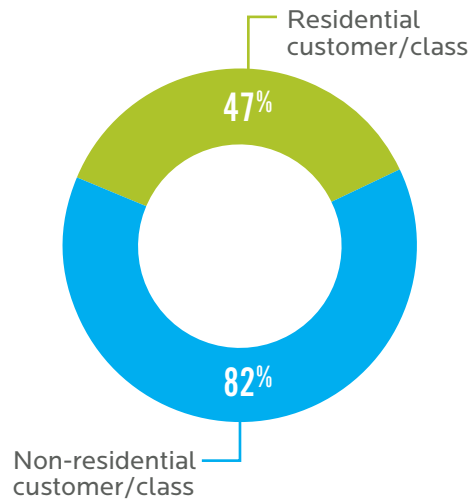


FIGURE 37
WHAT WAS THE BASIS OF THE CHALLENGE? (Select all that apply.)

Tax and not a user fee	59%
Constitutionality	35%
Lack of authority to assess stormwater fees	29%
Equity and fairness	12%
Rate methodology	12%
Other	6%

STORMWATER CREDITS AND INCENTIVES

Stormwater incentives can be defined as one-time monetary assistance or other rewards that municipalities offer to encourage property owners to support community goals such as engaging in sustainable development practices or protecting water quality. Incentives can be used as a mechanism to foster public-private partnerships in stormwater management.

Stormwater credits are ongoing reductions to a property's calculated stormwater charges that are given to properties that either reduce demand on the stormwater system and/or reduce the utility's cost of service through functional stormwater management practices and Best Management Practices (BMPs). Stormwater credit serves a key role in enhancing the perception of "user fees" by affording the customers opportunities to reduce the magnitude of the user fees commensurate with extent of onsite stormwater management.

As Figure 38 indicates, 44% of the respondents offer some type of credits and only 15% to 18% percent offer some type of incentives. The most common criteria for offering credits are volume reduction and peak flow reduction. Even in utilities that offer credits, the actual number of parcels that seek credits is relatively low at four percent. This is to some extent due to the fact that onsite stormwater management is capital intensive yielding low return on investment, which in turn impacts the economics of engaging in onsite stormwater management.



FIGURE 38
DOES YOUR UTILITY HAVE A STORMWATER CREDIT PROGRAM?

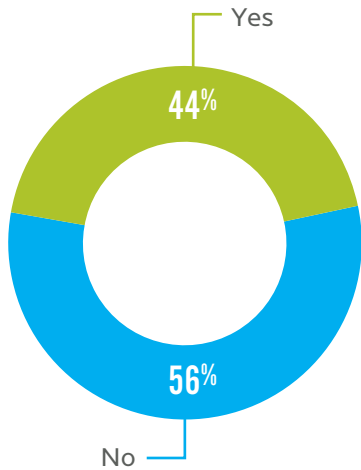


FIGURE 39
PLEASE INDICATE THE CLASSES OF PARCELS THAT ARE OFFERED STORMWATER CREDITS. (Select one)

Nonresidential only (includes multifamily and condos)	53%
Both residential and nonresidential	47%

FIGURE 40
DO YOU OFFER CREDITS FOR ANY OF THE FOLLOWING STORMWATER MANAGEMENT ACTIONS? (Select all that apply)

Volume reduction	65%
Peak flow reduction	59%
Water quality control	50%
Direct discharge to a surface water body (without using a municipal stormwater system)	41%
Good housekeeping practices (sweeping, oil separation, etc.)	21%
Education	18%
NPDES permit compliance	15%
Other	3%

FIGURE 40A
PLEASE INDICATE THE MAXIMUM ALLOWABLE CREDIT FOR EACH ACTION SELECTED.

	Maximum allowance credit			
	Over 75%	50% – 75%	25% – 50%	Less than 25%
Volume reduction	37%	38%	25%	0%
Peak flow reduction	26%	20%	27%	27%
Water quality control	14%	22%	43%	21%
NPDES Permit Compliance	0%	0%	0%	100%
Education	0%	50%	17%	33%
Direct discharge to a surface water body (without using a municipal stormwater system)	50%	10%	10%	30%
Good housekeeping practices (sweeping, oil separation, etc.)	20%	0%	20%	60%
Other	0%	0%	0%	100%

FIGURE 41

IS THERE A CAP FOR THE TOTAL AMOUNT OF CREDITS THAT ARE OFFERED?

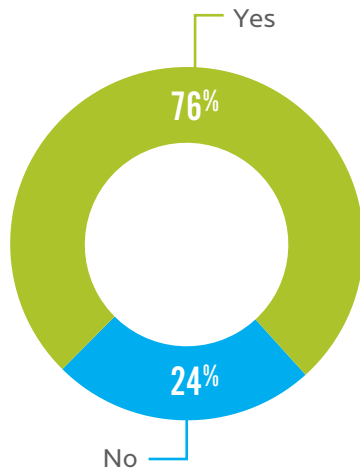


FIGURE 41A

IF YES, WHAT IS THE MAXIMUM STORMWATER FEE REDUCTION?

Maximum stormwater fee reduction		
>75%	50 – 75%	25 – 50%
32%	40%	28%

FIGURE 42

DO YOU OFFER CREDITS FOR ANY OF THE FOLLOWING TO ENCOURAGE “GREEN” OR LOW IMPACT DEVELOPMENT (LID) STORMWATER MANAGEMENT PRACTICES? (Select all that apply.)

None of the above	61%
Porous/permeable surfaces	36%
Rain gardens	27%
Green roofs	21%
Rain barrels	9%
Other	6%

Percentage based on number of responses

FIGURE 43

DOES YOUR UTILITY OFFER ANY TYPE OF STORMWATER CREDITS TRADING/BANKING PROGRAM?

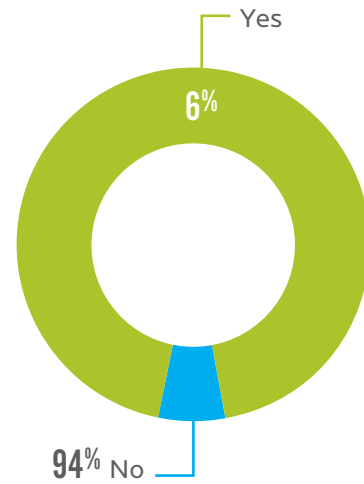


FIGURE 44

DO YOU OFFER ANY OF THE FOLLOWING INCENTIVE PROGRAMS? (Select all that apply.)

Site assessment/BMP design assistance	18%
Stormwater grants	15%
Cost sharing	15%
BMP installation cost rebates	6%

PUBLIC INFORMATION/EDUCATION

Majority of the participants consider educating the public and the policy makers on stormwater management and engaging them in developing integrated solutions as essential outreach tasks to sustaining stormwater utilities. Public education and outreach is also one of the MS4 permit requirements which with utilities have to comply. As indicated in Figure 45, 96% of the respondents view ongoing public education as either “helpful” or “essential” to the success of their use fee-funded stormwater utility.

To better understand how utilities are engaging stakeholders, respondents were asked to rate the effectiveness of various stakeholder engagement activities that they have conducted. Consistent with the previous survey, direct and targeted interface with the customers through community events/presentations continues to rank the highest and interestingly social media had the lowest ranking. Utilities continue to view leveraging schools, to educate on stormwater management, as important a channel as print/TV media.

And, with all large-scale public information and educational campaign, the key to effective communication is the use of multiple communications channels frequently and consistently to ensure stakeholders see and remember the education campaign.

FIGURE 45
HOW IMPORTANT IS AN ORGANIZED, ONGOING PUBLIC INFORMATION/EDUCATION EFFORT TO CONTINUED SUCCESS OF USER FEE-FUNDED STORMWATER UTILITY? (Select one)

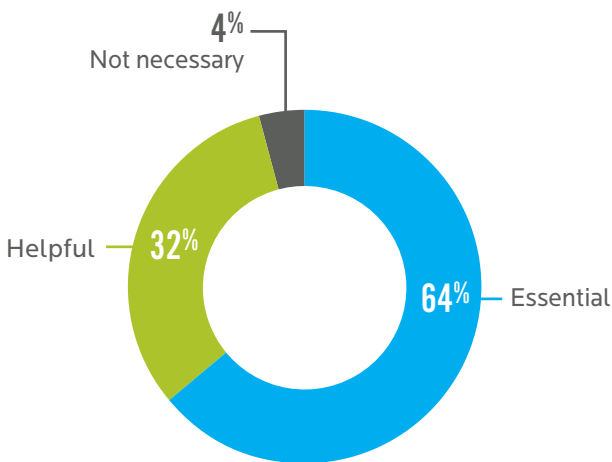
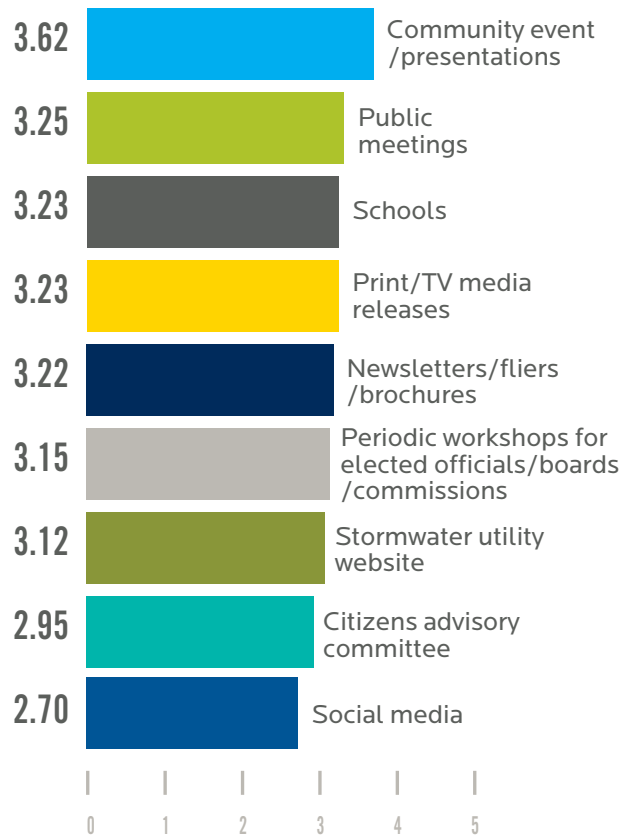


FIGURE 46
PLEASE RANK ON A SCALE OF 1 TO 5, THE EFFECTIVENESS OF THE SPECIFIC ACTIVITIES YOU HAVE UNDERTAKEN TO SECURE STAKEHOLDER APPROVAL AND SUPPORT FOR STORMWATER USER FEES. (1: Least Effective, 5: Most Effective)



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