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# 2018 Stormwater Utility Survey

BLACK & VEATCH MANAGEMENT CONSULTING, LLC



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**WELCOME  
TO OUR 2018  
STORMWATER  
UTILITY SURVEY**



It is hard to believe it's been 27 years since we launched our first biennial survey of stormwater utilities in the U.S., when the concept of stormwater user fee funding was a nascent phenomenon. Since then, the awareness regarding stormwater related issues including water quality, flooding, habitat development, land use management, and regulatory requirements has been gradually increasing in urban, suburban, and rural communities. Amidst the evolving dynamics of stormwater management, Black & Veatch has remained a stable voice in continuing to capture and reflect enhanced stormwater management planning, best practices, and funding.

This 2018 report, our 12th since inception, highlights key industry priorities and investment drivers, stormwater rate structure, billing, and credits program practices; and the average residential stormwater user fees.

In addition to presenting the survey findings, we have also included a special feature on the role of stormwater credits and incentives, titled "The Value Proposition: Stormwater Credits and Incentives." The special feature highlights the concepts of credits and incentives, the benefits and challenges of such programs, the policy implications associated with designing and establishing credits and incentive programs, and the critical balancing act that is needed to align credits and/or incentives policies and program requirements to overall stormwater and land use management objectives.

If you have any questions regarding the contents of this report and/or Black & Veatch services, please do not hesitate to contact us at: [ManagementConsulting@bv.com](mailto:ManagementConsulting@bv.com).

Sincerely,

A handwritten signature in blue ink that reads "David Mayers". The signature is fluid and cursive, with the first name "David" and last name "Mayers" clearly distinguishable.

David Mayers | Water Industry Executive

Black & Veatch Management Consulting, LLC

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This 2018 report is  
Black & Veatch's 12th  
stormwater utility  
survey.

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# ABOUT THIS REPORT



## COMPANY OVERVIEW

Black & Veatch Management Consulting, LLC is a wholly-owned subsidiary of Black & Veatch and provides integrated strategy, financial planning solutions, business operations, and technology solutions for water, wastewater, stormwater, power, oil and gas, and renewable energy utility sectors. Our seasoned executives and consultants combine subject matter expertise, advanced analytics and pragmatic business sense with extensive technology and engineering capabilities to deliver solutions that work best for your program needs, organization, assets and customers.

## SURVEY DESIGN

This 2018 stormwater utility survey was conducted online, in the United States, during May through July of 2018. The results are presented under the following six sections:

**Section 1: Organization and Operations** presents a general profile of the respondents including population, size and characteristics of service area.

**Section 2: Planning** presents insights into what utility managers perceive to be the most important industry issues and stormwater infrastructure investment drivers. This section also highlights utility governance, the types of permit requirements that utilities have to comply with and the planning activities utilities engage in to address stormwater management. In addition, a new question was added this year regarding public-related partnership agreements (Question 13).

**Section 3: Finance and Accounting** reviews stormwater utility revenues, expenditures, sources of funding, and the adequacy of stormwater funding to meet utility obligations.

**Section 4: Stormwater Rate Structure and Billing** presents the types of costs recovered through user fees, the fee methodology used in setting rates, the rate structures and billing practices, and the average monthly residential rate of each utility that participated in the survey. Information on the types of exemptions and discounts that utilities offer, and insights on legal challenges are also provided. Calculated bills reflect rates in effect as of June 1, 2018.

**Section 5: Stormwater Credits and Incentives** offers insights into the types of credits, criteria used in offering credits, and innovative credit programs.

**Section 6: Public Information/Education** assesses the methods of education and multi-media sources used in educating and in disseminating information.

## SURVEY TEAM



**Prabha  
Kumar**  
Director



Prabha Kumar is a Director in Black & Veatch Management Consulting, LLC and leads the stormwater utility consulting practice. With over 19 years of experience, she specializes in stormwater utility feasibility studies, utility development and implementation, and utility business process transformation services. Kumar's comprehensive utility consulting expertise also includes resource analysis, financial planning, cost of service, and rate design studies, wholesale pricing studies and in providing expert witness services in utility litigation matters. She has also managed technology projects that encompass the entire software development lifecycle of needs assessment, system requirements specification, system design, development, implementation and training.



**Anna White**  
Principal Consultant



Anna White is a Principal Consultant in Black & Veatch Management Consulting, LLC and leads stormwater user fee development and implementation and stormwater rate study projects. In addition, she also specializes in projects involving cost of service and rate determination, revenue bond determination and financial reviews of operations for water, wastewater and stormwater utilities in the public sector. Her economics background and experience with computer modeling and software applications have been utilized in developing financial analyses of municipal water and wastewater utilities.





# REPORT HIGHLIGHTS



## PROFILE OF RESPONDENTS



75 participants from 21 states completed the online questionnaire.



All of these participants fund stormwater management in whole or in part through stormwater user fees.



This year's participants include 16 first time participants and 59 repeat participants.

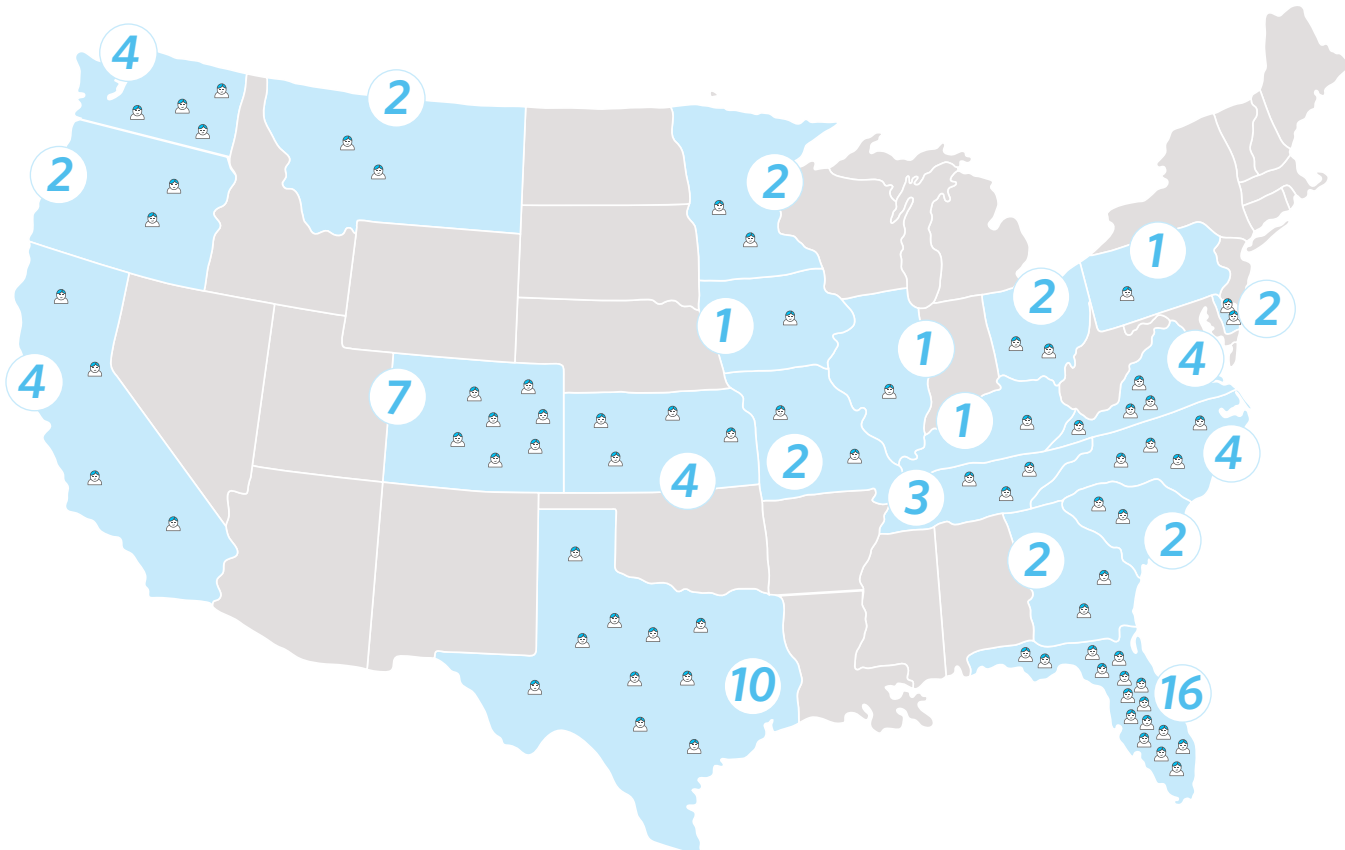


88% serve a city, rather than a county or a region.

## Participant General Statistics

Characteristic	Median	Range
Population Served	110,500 people	8,500 - 1,500,000 people
Number of Accounts	33,000 accounts	1,800 - 350,000 accounts
Gross Area based ERU	7,801 sq. ft. of total parcel area	2,400 - 43,560 sq. ft. of total parcel area
Impervious Area based ERU	2,618 sq. ft. of impervious area	910 - 5,700 sq. ft. of impervious area

## Participant Locations



# THE VALUE PROPOSITION: STORMWATER CREDITS & INCENTIVES



In the 2016 Stormwater Survey, we discussed the importance of a clear nexus among Program, Cost of Service, User Fees and Customer Benefit. Stormwater credits offer an additional mechanism to utilities to enhance the nexus between a property's stormwater charge and the potential demand that property exerts on the stormwater system.

## **BENEFITS AND CHALLENGES**

Stormwater credits are ongoing reductions in stormwater charges that properties can achieve for reducing demand on the stormwater system and/or reducing the utility's cost of service through onsite stormwater Best Management Practices (BMPs). Stormwater credits also offer the added benefit of enhancing the validity of "user fees" by providing customers the opportunity for voluntary control of their fees.

Stormwater incentives are one-time monetary or other non-monetary assistance that municipalities offer to property owners and/or other entities, such as developers, primarily to foster private on-site stormwater management. Incentives are scalable in that utilities can either earmark a small amount of funding as grants for providing assistance to residential customers, free design services, rain barrels, etc. and/or offer much larger capital project-scale grants to leverage public-private partnerships in stormwater management.

The rationale for credits and incentives programs can rest on a sound footing when they are aligned to achieve clearly defined objectives and are tracked against measurable performance indicators. However, these programs can cause some challenges as well, especially when the magnitude of fee credits offered are significant – the more common issues being the potential risk of loss of revenue and the associated burden that can pose on non-credit customers, administrative processes, and the inherent difficulty in directly correlating the magnitude of credits offered to the costs a utility may reduce and/or avoid.

Due to this complex interplay of benefits and challenges, utility managers that already have a functioning stormwater credits program and those who are considering establishing one often grapple with the true value of a stormwater credits program.

## **POLICY IMPLICATIONS**

As each municipality has its own unique circumstances with respect to land use and development, stormwater system issues, regulatory mandates, and economic and socio-political considerations, stormwater credits and incentives shouldn't be viewed with a "one size fits all" lens. Entities responsible for stormwater management need to have the flexibility to develop and implement a program that best meets their specific needs and circumstances.

From a policies perspective, utilities have to address some basic fundamental questions whether a new credit program is being planned or if an existing program is being reviewed.

- Should the user-fee funded stormwater utility offer a credits program?
- Should the credits program be offered to both residential and non-residential property owners?





- What should the maximum be for aggregate credits?
- Should credits be offered for meeting the local and/or state development regulations or only be offered to properties that exceed the development regulations?

While there are a number of other procedural requirements that have to be defined as well, the answers to the questions above will have direct financial and rate payer implications.

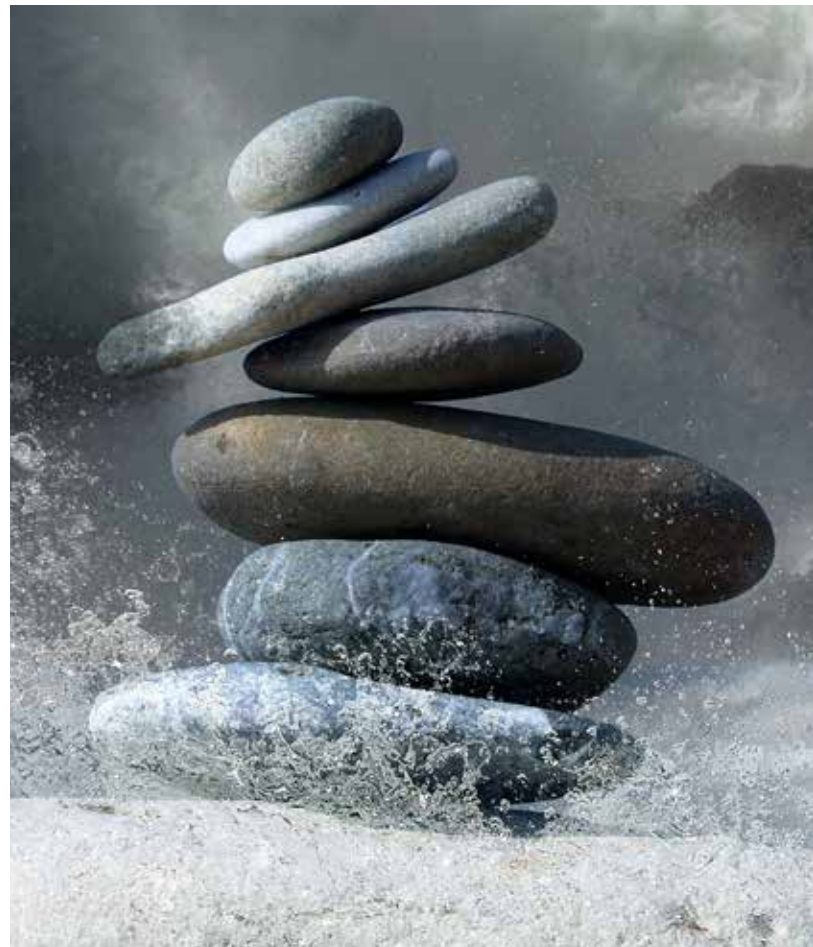
## SURVEY FINDINGS

This year's survey reflects a continuing trend, with a greater proportion of the participants indicating they have a credits program (Question 49). This is logical given that even the most basic credit program can still help enhance the perception of equity as it relates to cost recovery by offering the property owner a voluntary option to reduce their stormwater charge. Similarly, a greater proportion of participants indicates they are offering credits to their residential customer class as well (Question 50). Utilities have varying policies on whether credits be given for meeting current development standards or for exceeding standards.

Utilities often and should take a prudent approach when making these types of decisions with respect to the technical standards and the magnitude of credits offered, as these need to align closely with the overall program objectives. A large utility in the North East U.S. offers significant credits for meeting development standards as one of their key drivers is to foster private stormwater management to meet the municipality's combined sewer overflow mitigation compliance mandates. In contrast, a smaller utility in the Midwest offers stormwater credits only for exceeding current development standards.

## THE BALANCING ACT

While the value of credits and incentives will continue to be an issue that stakeholders will and should deliberate, these types of programs at a minimum serve as a valuable tool to enhance the perception of equity and offer a level of voluntary fee control. It is imperative for utilities to exercise caution in defining credit program policies so that programs can be meaningfully foster stormwater management stewardship, while making sure that the potential revenue loss from these programs don't pose any undue burden on customers that are unable to seek credits. As with every other program, stormwater credits and incentives program policies require a balancing act.





## SECTION 1

# ORGANIZATION AND OPERATIONS



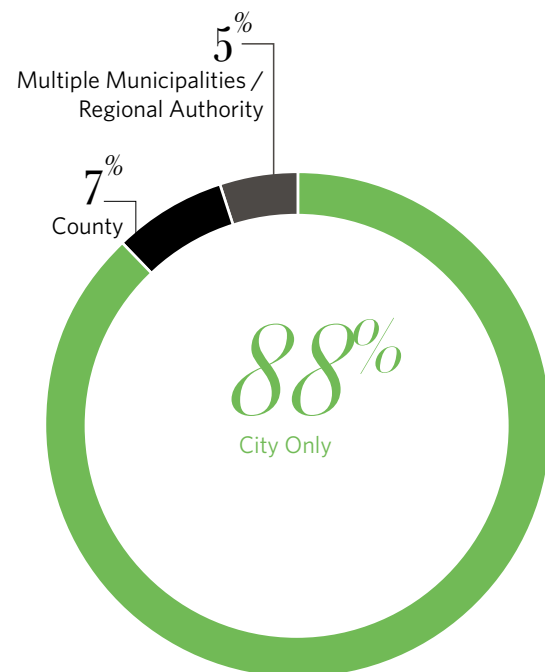
CONSISTENT WITH PAST TRENDS, STORMWATER UTILITIES CONTINUE TO BE PREVALENT IN MUNICIPALITIES SERVED BY CITIES AS OPPOSED TO COUNTIES OR MULTI-JURISDICTIONAL AUTHORITIES.

Over the last seven surveys, spanning from 2004-2018, between 82 percent and 89 percent of respondents have reported serving a city jurisdictional area. In this year's survey, five of the eight respondents that have a combined sewer system indicated that they have a consent order for combined sewer overflows (CSOs) and only one has a consent order for municipal separate storm sewer systems (MS4) requirements.

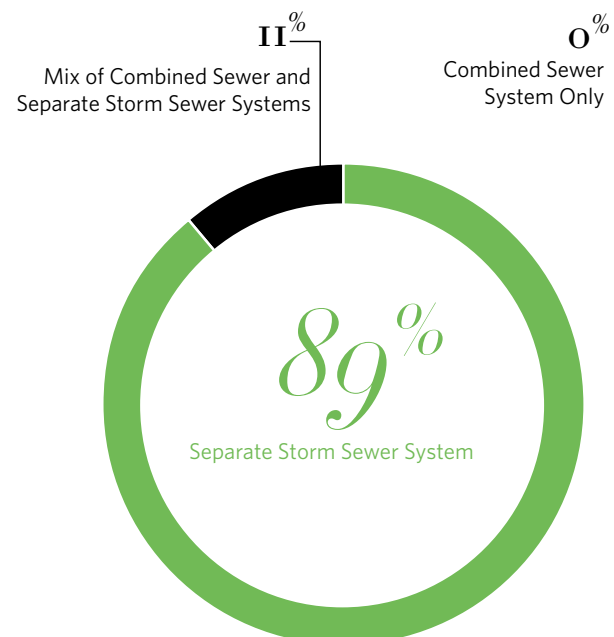
**1. For MS4 permitting purposes are you classified as: (Select One)**



**2. What jurisdictional area is your stormwater utility responsible for? (Select One)**

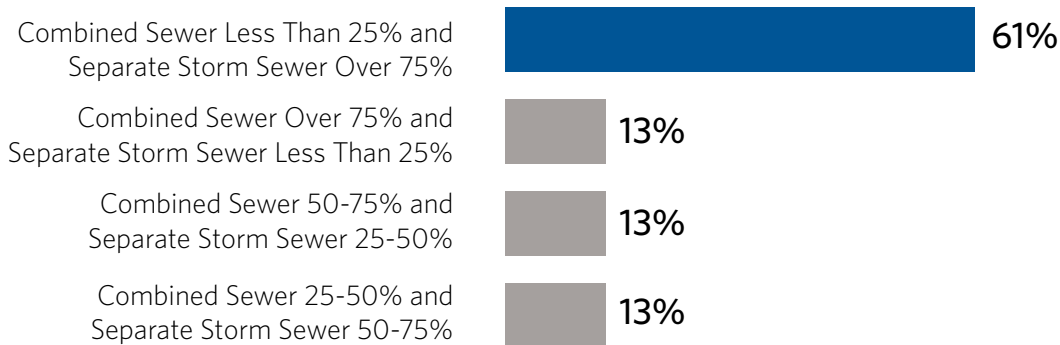


**3. What is the characteristic of your service area? (Select One)**





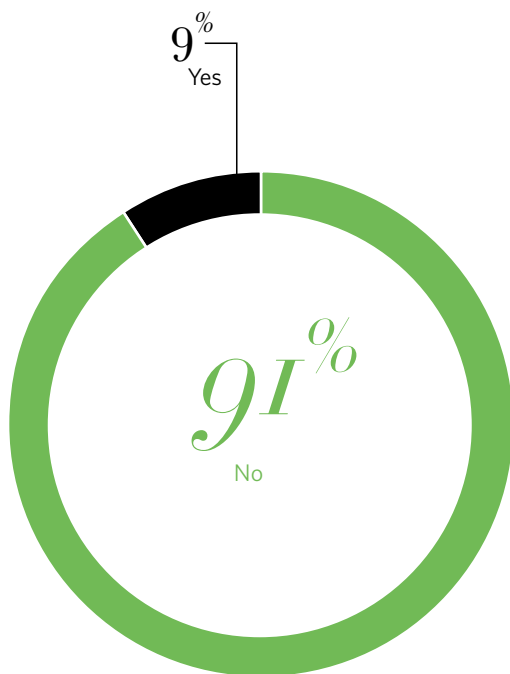
- 4. If you selected “Mix of Combined Sewer and Separate Storm Sewer Systems” in question 3, please indicate the percentage of Combined Sewer versus Separate Storm Sewer that exists within your jurisdiction.** *Percentage based on number of utilities that selected “Mix of Combined Sewer and Separate Storm Sewer Systems” in the previous question.*



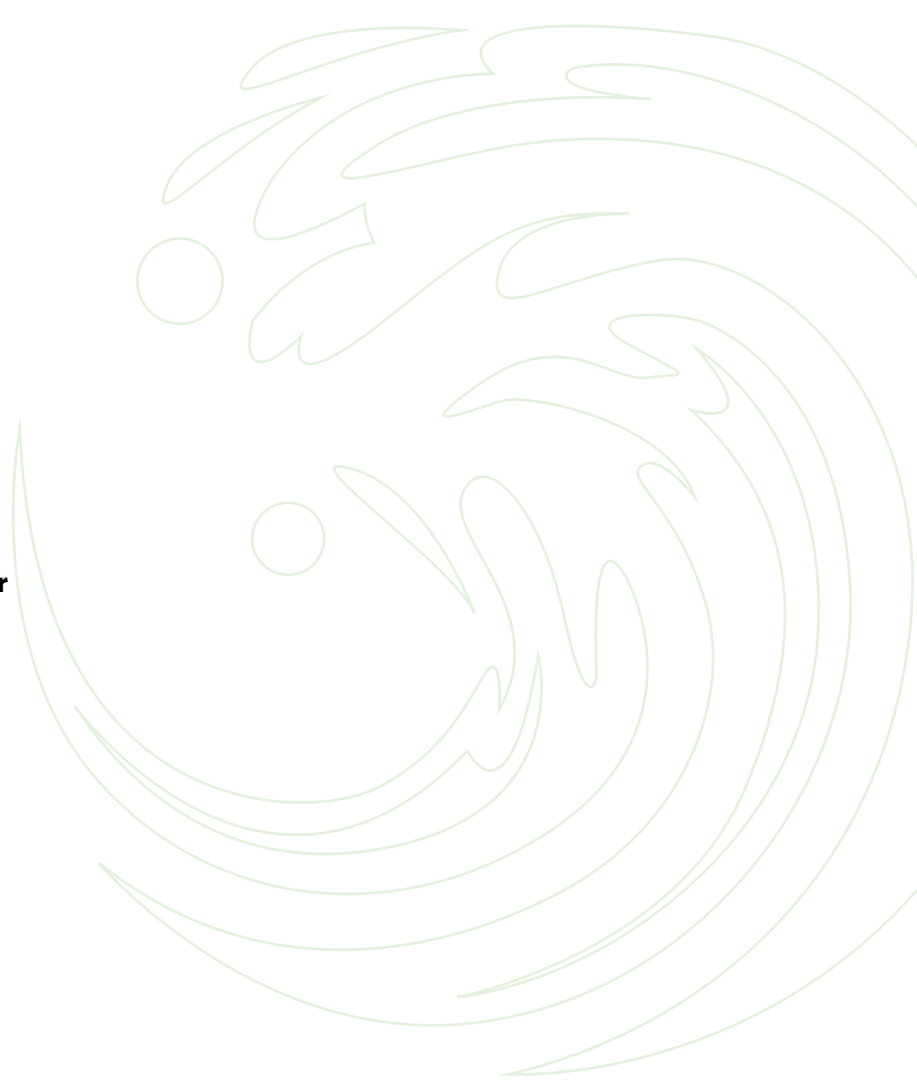
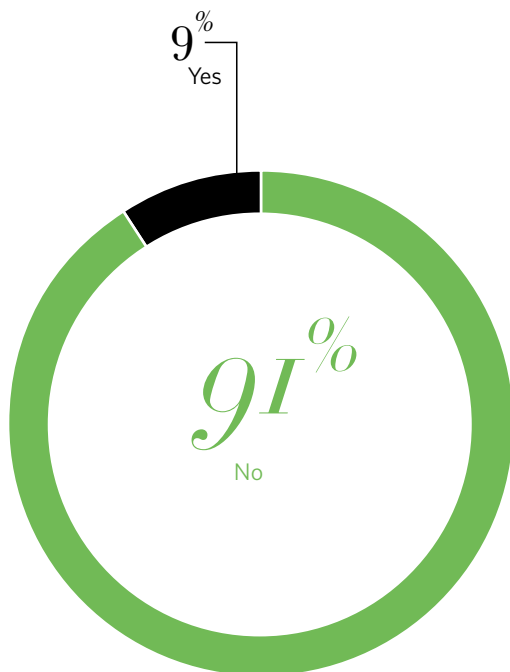
- 5. If you selected “Mix of Combined Sewer and Separate Storm Sewer Systems” or “Combined Sewer System Only” in question 3, which of the following best describes the wastewater treatment services within your jurisdiction?** *Percentage based on number of utilities that selected “Mix of Combined Sewer and Separate Storm Sewer Systems” or “Combined Sewer System Only” in question 3.*



**6. Is your utility under any type of consent order or agreement for combined sewer overflow (CSO) issues?**



**7. Is your utility under any type of consent order or agreement for MS4 compliance issues?**



## SECTION 2

# PLANNING

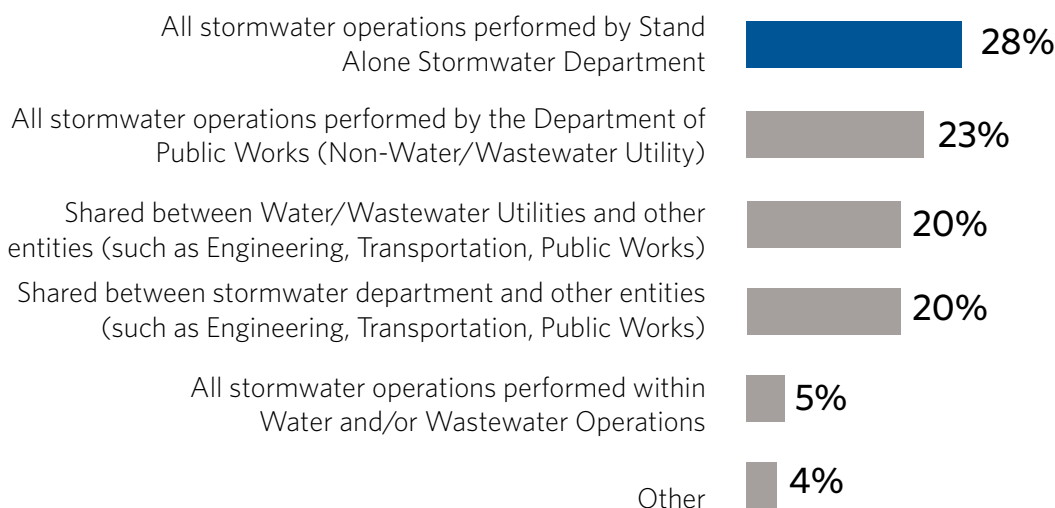


This is the fourth year that the survey has asked about complying with discharge permits, including the National Pollutant Discharge Elimination System (NPDES) and the Municipal Separate Storm Sewer System (MS4). Fifty-one percent of respondents to this year's survey indicated having to comply with both NPDES and MS4 requirements.

HOWEVER, CONSISTENT WITH PREVIOUS SURVEYS, ONLY 10 PERCENT INDICATED THAT THEY HAVE DEVELOPED AN INTEGRATED WET-WEATHER MANAGEMENT PLAN TO SUPPORT THEIR CSO AND MS4 REQUIREMENTS.

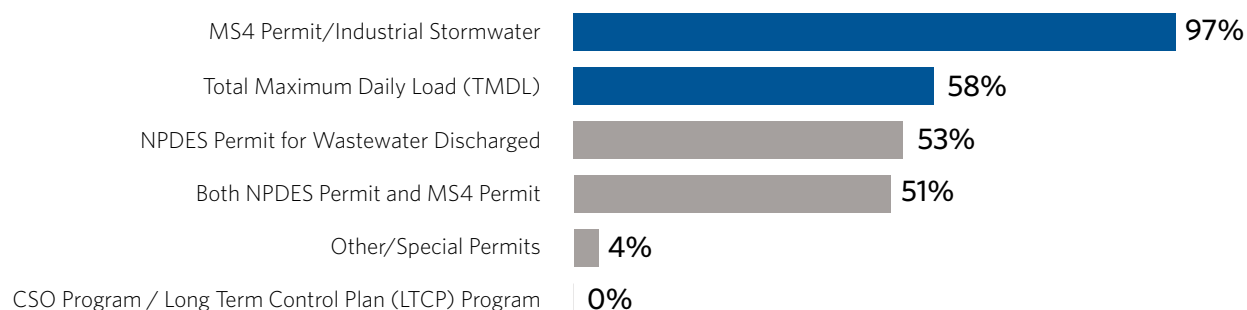
Stormwater utility managers balance diverse and complex financial, regulatory, infrastructure and community needs. Starting in 2014, respondents were asked to rate the importance of various issues to the stormwater industry. In both the 2014 and 2016 surveys, the top five issues included funding, public awareness, regulations, nutrient/total maximum daily load (TMDL) requirements and aging infrastructure needs. However, for the first time, in this year's survey, information systems ranked third highest with aging infrastructure dropping to 7th place this year.

**8. Please indicate how your current stormwater management operations (excluding Street Sweeping) are performed. (Select One)**

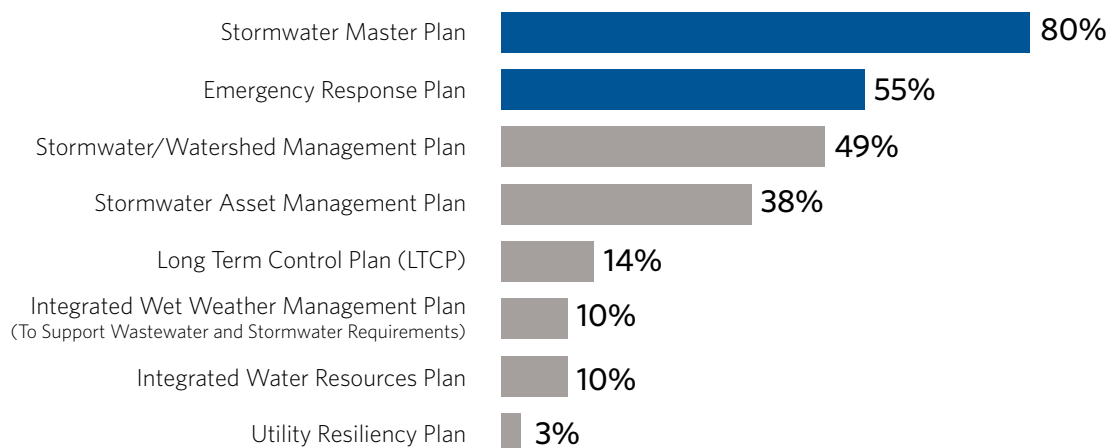




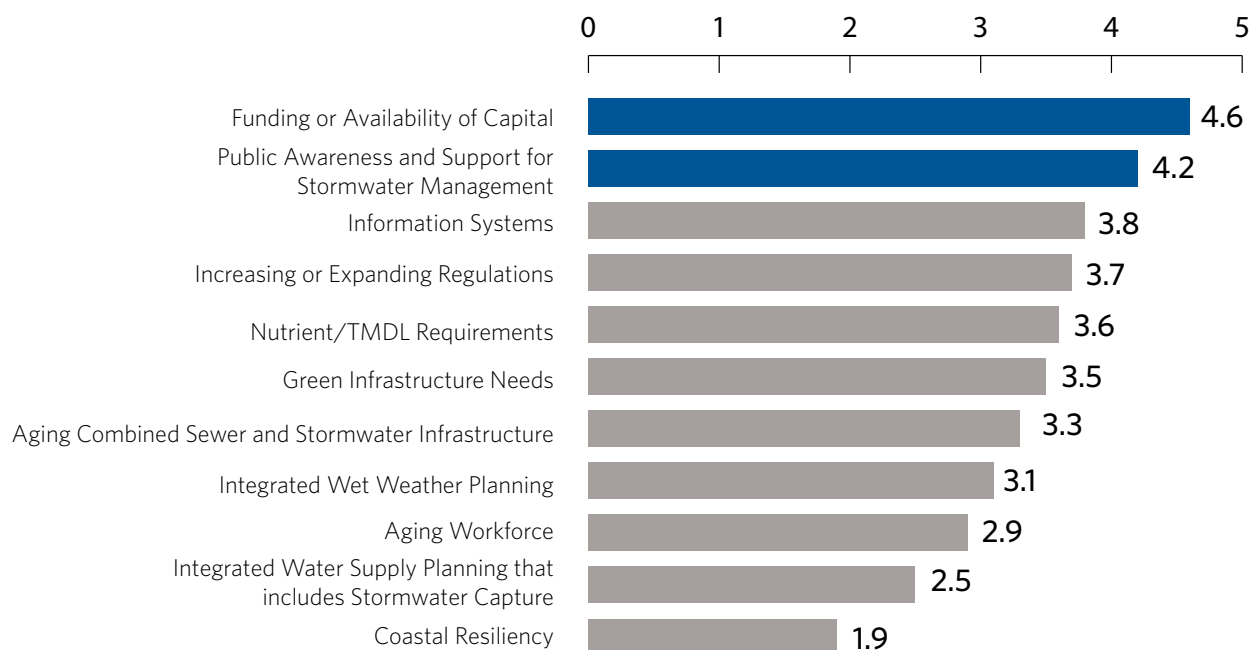
**9. What regulatory permit requirements do you currently have to comply with? (Select All That Apply)**



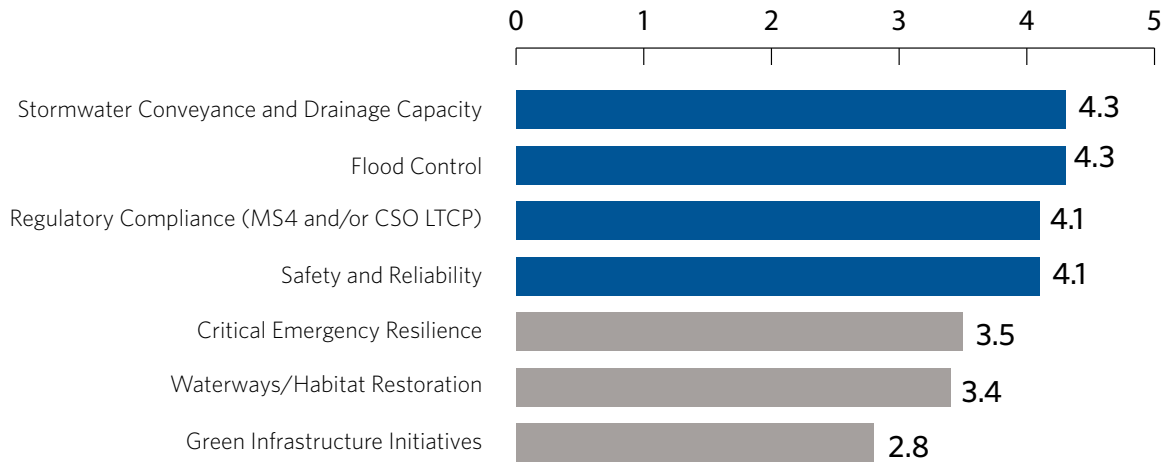
**10. What types of plans has your utility developed? (Select All That Apply)**



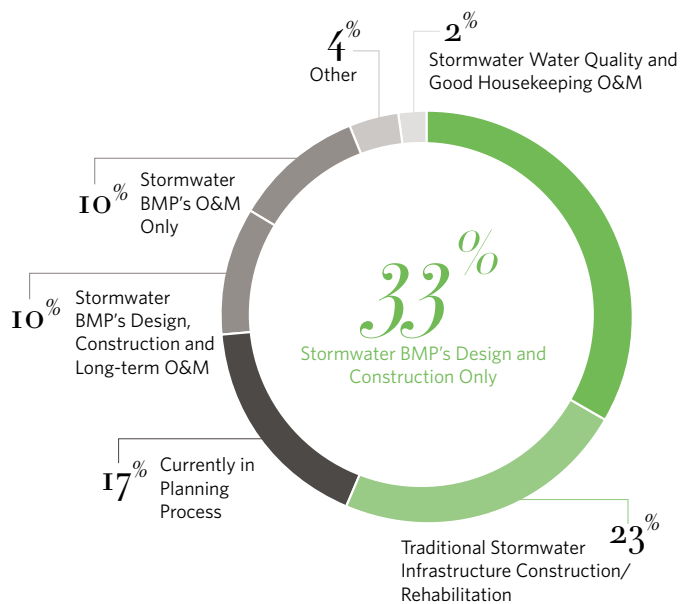
**11. Please rank the importance of each of the issues listed below in enhancing your utility's stormwater management. (1 = Least Important; 5 = Most Important)**



**12. Please rank how strongly the following issues drive capital program prioritization and level of annual capital spending decisions within your stormwater utility. (1 = Very Weak; 5 = Very Strong)**



**13. Have you entered into any public-private partnership agreements for the provision of the following public utility services?**



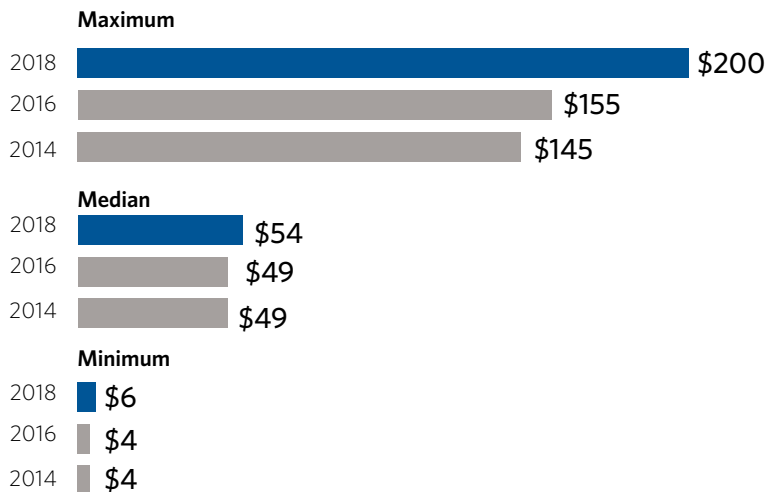
## SECTION 3

# FINANCING AND ACCOUNTING



Beginning with our first survey in 1991, we inquired about the funding adequacy of the participating utilities. Past respondents that have indicated that their funding was sufficient to meet most or all needs has ranged from a high of 61 percent in 2002 to a low of 38 percent in 2014. In this year's survey, 45 percent of participants indicated that funding is sufficient to meet most or all needs while 9 percent indicated that funding for urgent needs is not available.

**14. What is the total annual stormwater revenue generated per capita by your stormwater utility (in dollars)?**



The success of each utility's Stormwater Management Plan is dependent upon a stable, certain and dedicated funding stream.



**15. Please provide the approximate percentage of revenue that your utility received from each source listed.**

	Over 75%	50% - 75%	25% - 50%	Less than 25%
Stormwater User Fees	94%	5%	1%	0%
Stormwater Impact Fees	0%	0%	0%	100%
Miscellaneous Stormwater Fees	0%	0%	0%	100%
Taxes	0%	0%	50%	50%
Grants	0%	7%	7%	86%
Other	0%	5%	5%	90%

**16. Please indicate the percentage of your stormwater budget that is attributable to combined sewer overflow (CSO) mitigation issues. (Select One)**
**Percent of budget that is attributable  
to Combined Sewer Overflow (CSO)  
mitigation issues**

0%	63%
1% - 10%	25%
11% - 20%	12%
21% - 30%	0%
31% - 50%	0%
Over 50%	0%
Subtotal	100%





**17. From the list below, please select all the stormwater management activities that you include in your annual budget. (Select All That Apply)**

Description	Stormwater Utility Budget
Flood Control	90%
Stream/Habitat Rehabilitation	90%
Water Quality Monitoring	94%
Public Education	99%
Street Sweeping	75%
Inlets/Outfalls Maintenance	97%
Combined Sewer Conveyance	13%
Separate Storm Sewer Conveyance	94%
BMP Inspections (Publicly Owned)	97%
IDDE Programs	97%
Erosion & Sediment Control	92%
Construction and/or Post-Construction Monitoring	92%
Planning & Engineering	94%
Rehab and Replacement	94%
BMP Inspections/Maintenance (Privately Owned BMP's)	92%
Other (Specify)	75%

**18. What is the estimated 2018 annual Stormwater Capital Improvement Program budget?**

Minimum	Maximum	Average
\$1,800	\$143,900,000	\$7,623,005

**19. Please provide an approximate percentage of funding from each source.**

	2014	2016	2018
Majority Cash Financed	85%	88%	87%
Majority Debt Financed	15%	12%	13%

**20. 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)**

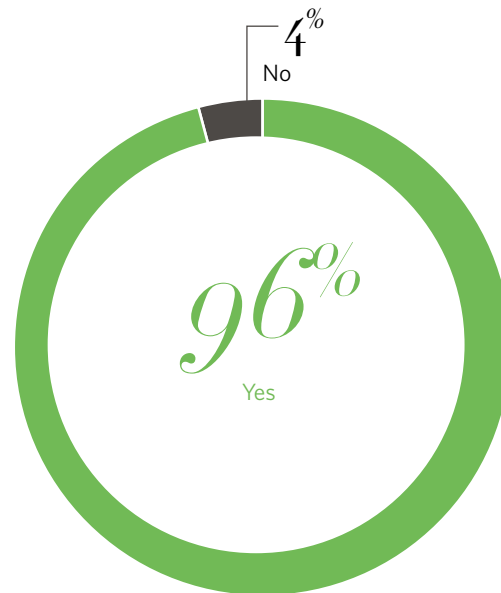
Majority Debt Financed	
General Obligation (tax) Bonds	15%
Stormwater Revenue Bonds	13%
Other Debt	5%
Combined Stormwater/Other Bonds	3%
Sales Tax Bonds	0%
Benefit District Bonds	0%

Majority Cash Financed	
Stormwater User Fees	91%
Grants	24%
Other Cash	16%
New Development Impact Fees	9%
Permitting and Other Taxes	7%
Special Tax Districts	3%
Ad Valorem Taxes	1%
Sales Taxes	0%

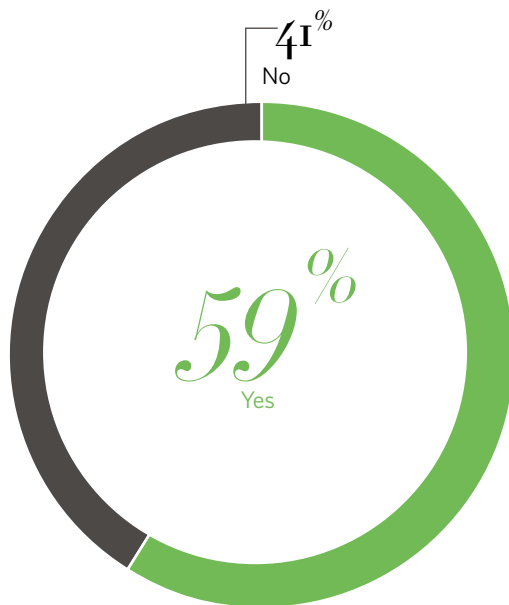
**21. Please indicate the level of adequacy of available stormwater funding. (Select One)**

	2018	2016	2014	2012
Adequate to Meet All Needs	15%	12%	6%	18%
Adequate to Meet Most Needs	31%	32%	32%	31%
Adequate to Meet Most Urgent Needs	45%	48%	45%	40%
Not Adequate to Meet Urgent Needs	9%	8%	17%	11%

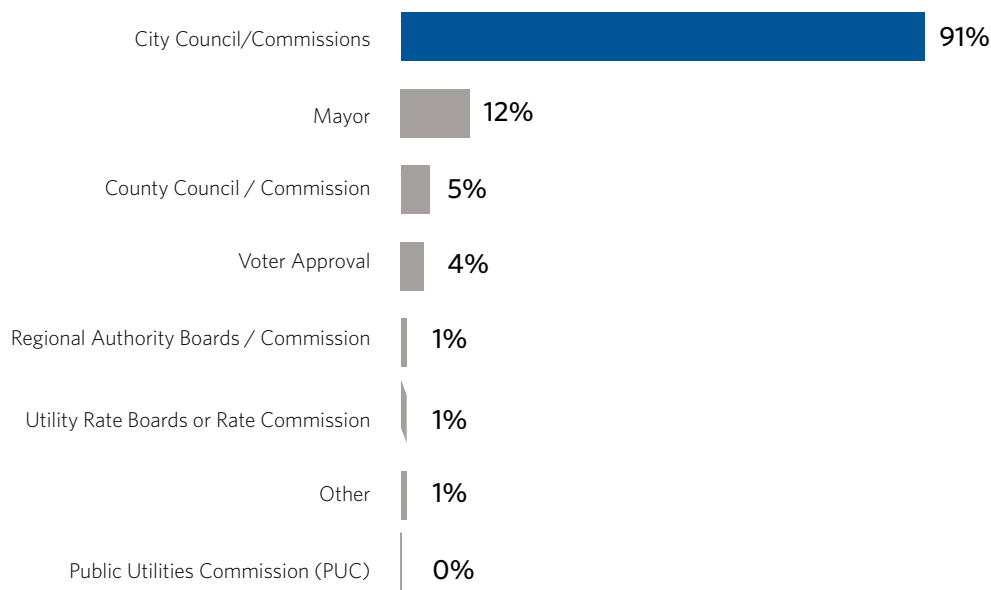
**22. Does your state have enabling legislation that authorizes municipalities to charge a stormwater user fee?**



**23. Does your state have enabling legislation that authorizes independent public utilities such as authorities, boards, and commissions, to charge a stormwater user fee?**



**24. What is the governing authority that approves your rates?**



## SECTION 4

# STORMWATER RATE STRUCTURE AND BILLING

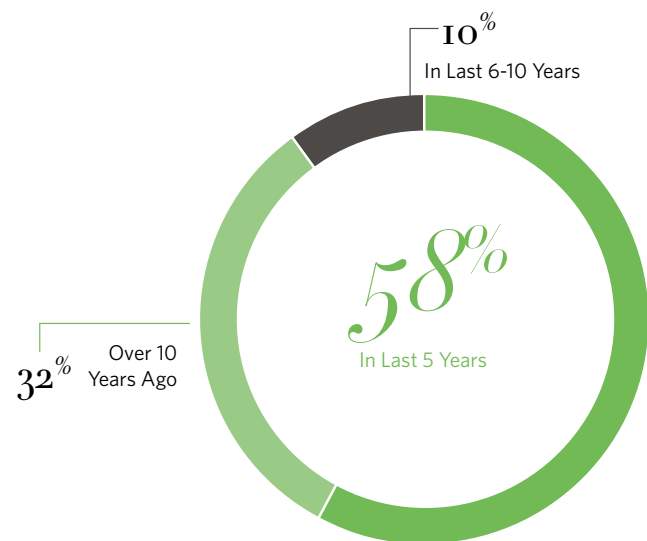


CONSISTENT WITH PAST SURVEYS, THE MAJORITY OF UTILITIES USE ACTUAL AND/OR EFFECTIVE IMPERVIOUS AREA AS THE USER FEE BASIS TO APPROXIMATE STORMWATER RUNOFF CONTRIBUTION. AN ALL TIME HIGH OF NINETY-TWO PERCENT OF THIS YEAR'S RESPONDENTS REPORTED USING IMPERVIOUS AREA AS THE BASIS FOR FEES.

While the majority of participants continue to have a uniform flat fee for the single family residential parcels, the occurrence of tiered rates is holding steady, with almost one-third of participants in three of the last four surveys indicating a utilization of a tiered residential rate structure. The median average monthly single-family rate continues to increase with each survey, to \$5.48 this year.

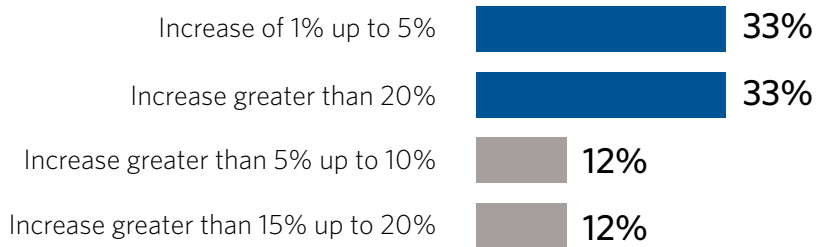
As stormwater fees continue to increase, the percentage of respondents that exempt classes of properties from the fees appears to remain constant. Only 19 percent of respondents indicated that no properties are exempt from the stormwater fee. Exemption of undeveloped land continues to rank second following public streets and roads, medians and public right-of-way. The exemption of rail right-of-way continues to rank third.

**25. Please indicate when your utility's current stormwater rate schedule became effective.**

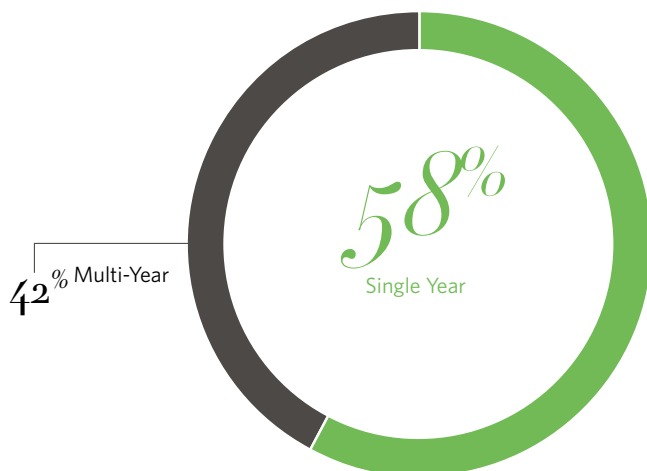




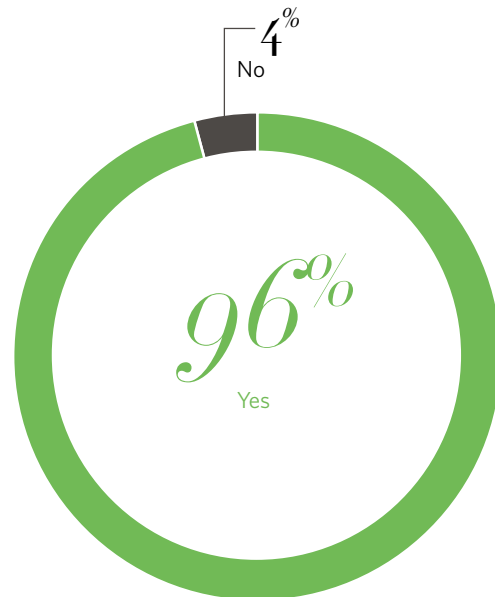
**26. What was the magnitude of the last change in fees? (Select One)**



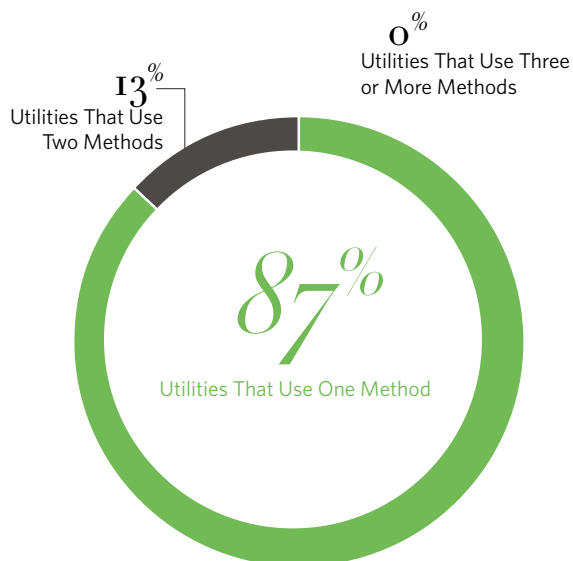
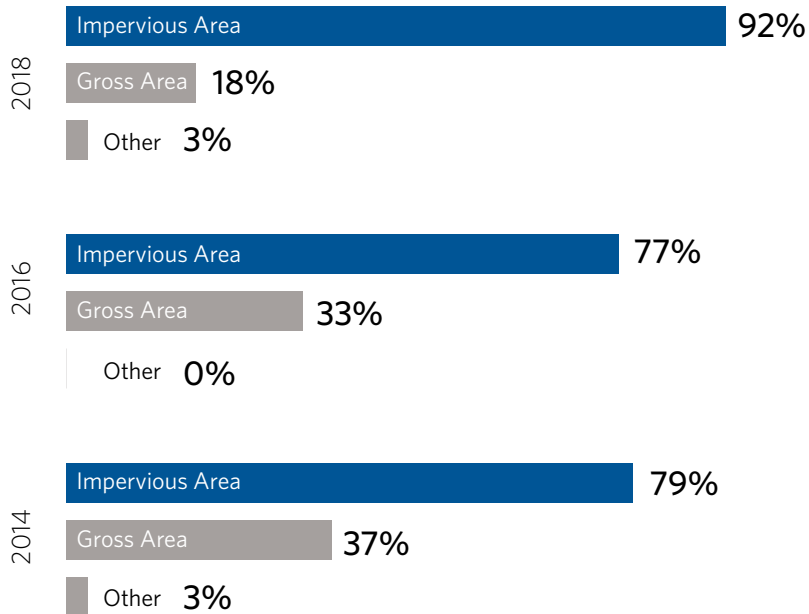
**27. What type of rate approval is your stormwater utility able to obtain from the approving body? (Select One)**



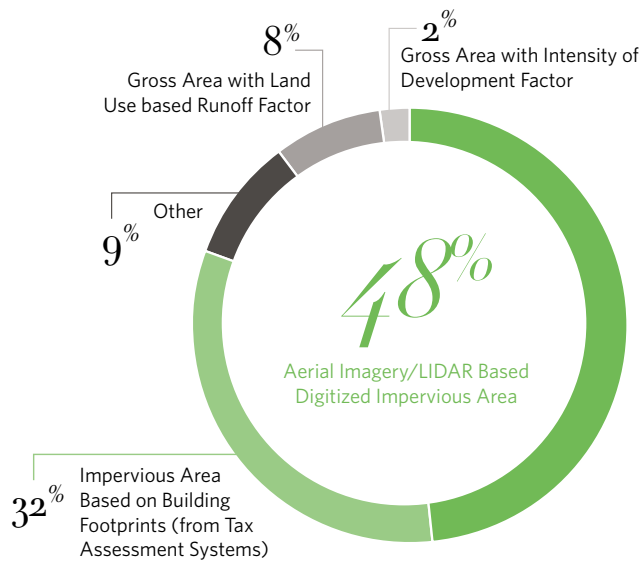
**28. Is your stormwater user fee based on some form of parcel area such as gross and/or impervious area?**



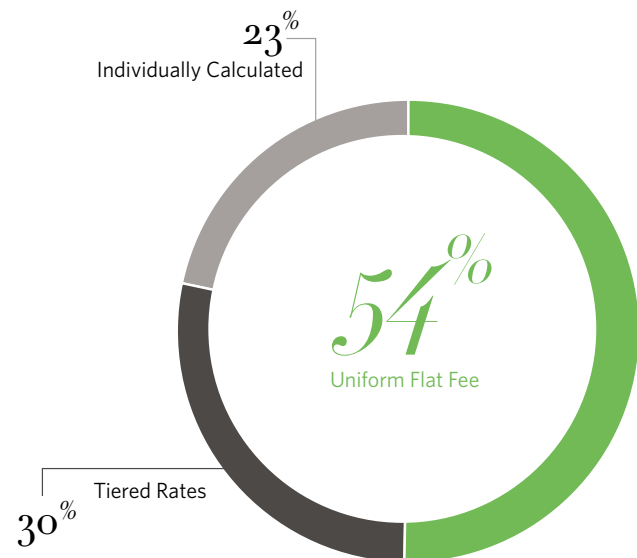
**29. What is the basis for calculating your parcel area based stormwater user fees? If a combination of methods is used, please check all applicable methods.**



**30. If your fee is based on impervious area, please select all applicable methods you use to determine impervious area.**



**32. What type of rate structure does your utility have for the Single Family residential parcels? Please also provide the average monthly residential stormwater fee for each rate structure you select.**



**31. What is your utility's average single Family residential parcel square footage? (Include attached residential up to four dwelling units)**

Average Gross Area (Sq. Ft.)	2018	2016	2014
Minimum	2,480	2,266	2,105
Maximum	43,560	20,000	22,500
Median	7,801	8,000	8,000

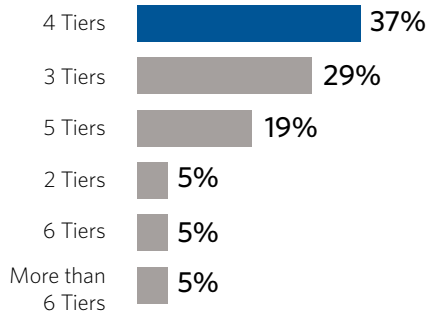
Average Impervious Area (Sq. Ft.)	2018	2016	2014
Minimum	910	35	794
Maximum	5,700	5,000	7,500
Median	2,618	2,550	2,368

**33. Average Monthly Single-Family Rate**

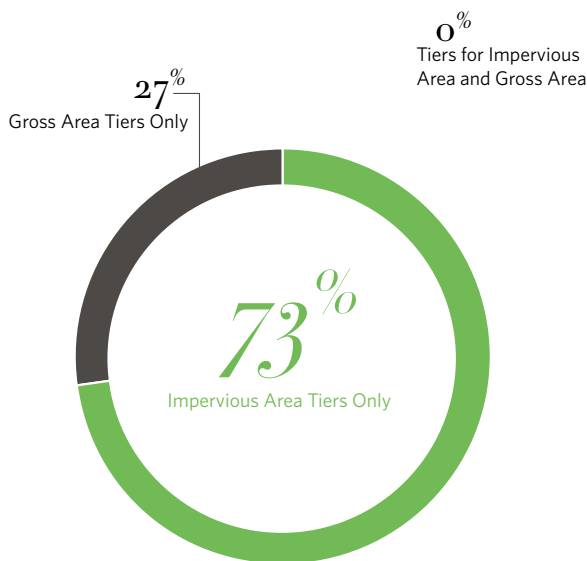
City	State	2018 Average Monthly Residential Charge
Seattle	WA	\$40.07
Redmond	WA	\$16.56
Lubbock	TX	\$16.23
Fort Collins	CO	\$15.00
Bremerton	WA	\$14.90
Naples	FL	\$13.68
Palo Alto	CA	\$13.65
Loveland	CO	\$12.98
Charlotte	NC	\$11.95
Austin	TX	\$11.80
Gresham	OR	\$11.32
Southeast Metro Stormwater Authority	CO	\$11.00
Pierce County	WA	\$10.61
Edgewater	FL	\$10.00
Orlando	FL	\$10.00
Satellite Beach	FL	\$8.67
Cocoa Beach	FL	\$8.50
Ormond Beach	FL	\$8.00
Charleston	SC	\$8.00
Hampton	VA	\$7.83
Sarasota County	FL	\$7.55
Meadville	PA	\$7.50
Bloomington	MN	\$7.29
Wilmington	DE	\$7.18
Medford	OR	\$7.12
Holly Hill	FL	\$7.00
Gwinnett County	GA	\$6.97
Adams County	CO	\$6.90
Tampa	FL	\$6.83
Port Richey	FL	\$6.66
Plymouth	MN	\$6.38
Killeen	TX	\$6.00
Miami Gardens	FL	\$6.00
Westminster	CO	\$6.00
Olathe	KS	\$5.77
Wooster	OH	\$5.75
Great Falls	MT	\$5.71

City	State	2018 Average Monthly Residential Charge
Cedar Rapids	IA	\$5.48
Margate	FL	\$5.46
Roanoke	VA	\$5.40
Fort Worth	TX	\$5.40
Lawrence	KS	\$5.30
Griffin	GA	\$5.17
Sanitation District #1	KY	\$5.04
Raleigh	NC	\$5.00
Wichita Falls	TX	\$5.00
Round Rock	TX	\$4.75
Rockledge	FL	\$4.75
San Antonio	TX	\$4.74
Niceville	FL	\$4.51
Mesquite	TX	\$4.50
Topeka	KS	\$4.50
Rock Hill	SC	\$4.25
Stuart	FL	\$4.18
Frisco	TX	\$4.14
Monroe	NC	\$4.00
Lynchburg	VA	\$4.00
McKinney	TX	\$4.00
Lakewood	CO	\$3.85
Charlottesville	VA	\$3.60
Cincinnati	OH	\$3.54
Wichita	KS	\$3.50
Murfreesboro	TN	\$3.25
Newark	DE	\$2.95
Littleton	CO	\$2.75
Billings	MT	\$2.69
Mecklenburg County	NC	\$2.68
West Miami	FL	\$2.50
Kansas City	MO	\$2.50
Columbia	MO	\$2.25
Santa Clarita	CA	\$2.12
San Diego	CA	\$1.90
Shelby County	TN	\$1.50
Goshen	IN	\$1.25
Hamilton County	TN	\$0.75

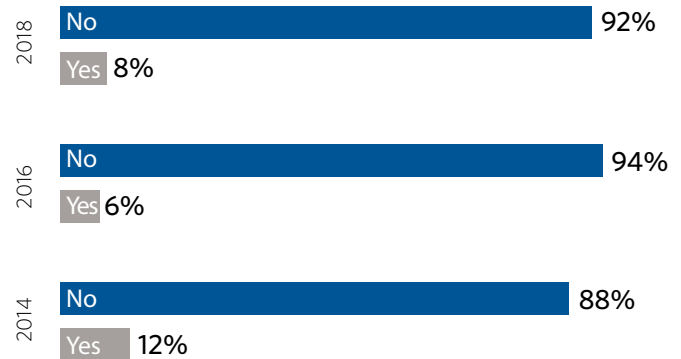
**34. If you have a Tiered Residential Rate Structure, please indicate the total number of tiers.** *Percentage based on number of utilities that indicated they had tiered rates in Q32.*



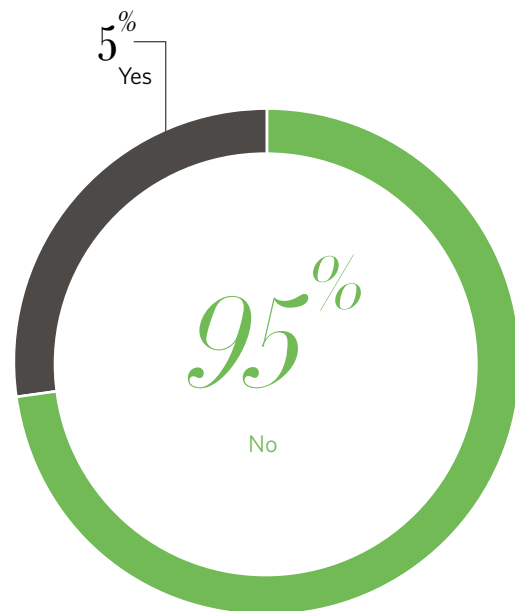
**35. If you have a Tiered Residential Rate Structure, what is the basis of the tiers? (Select One)** *Percentage based on number of utilities that indicated they had tiered rates in Q32.*



**36. Does your stormwater rate structure include a separate billing/collection or service charge?**

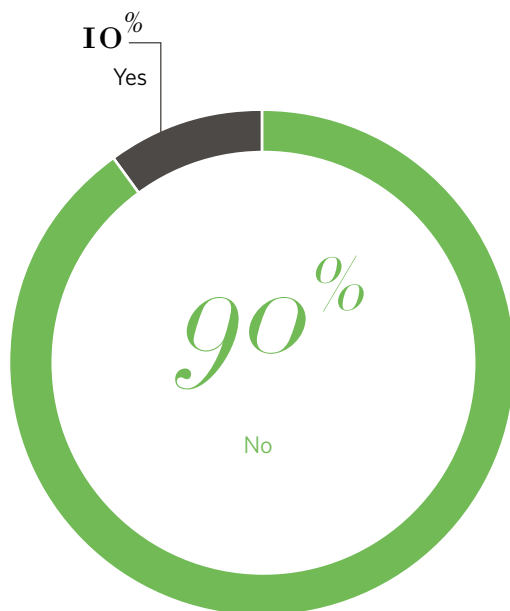


**37. In your stormwater rate structure, do you have rates that differ by service areas, zone or watersheds?**

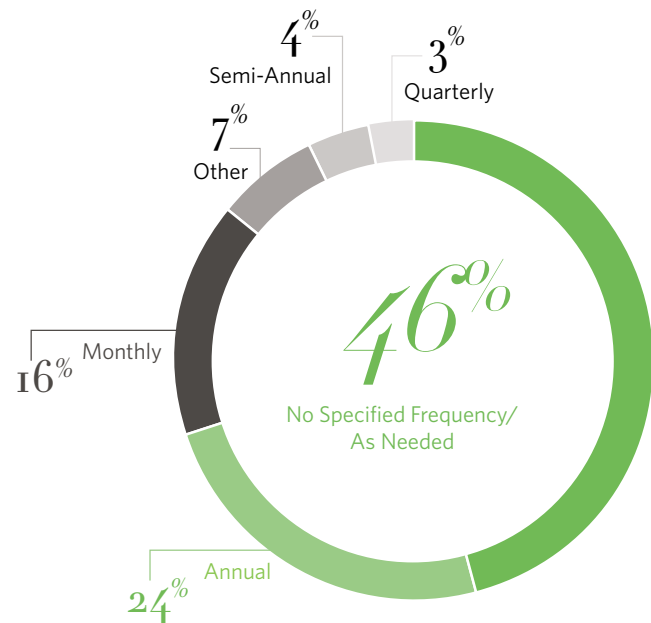




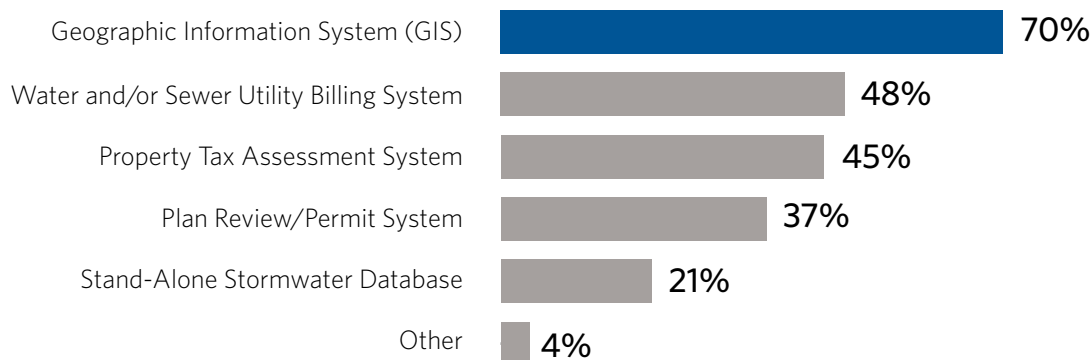
**38. Are one-time impact capital recovery fees applied to new stormwater utility customers or new development?**



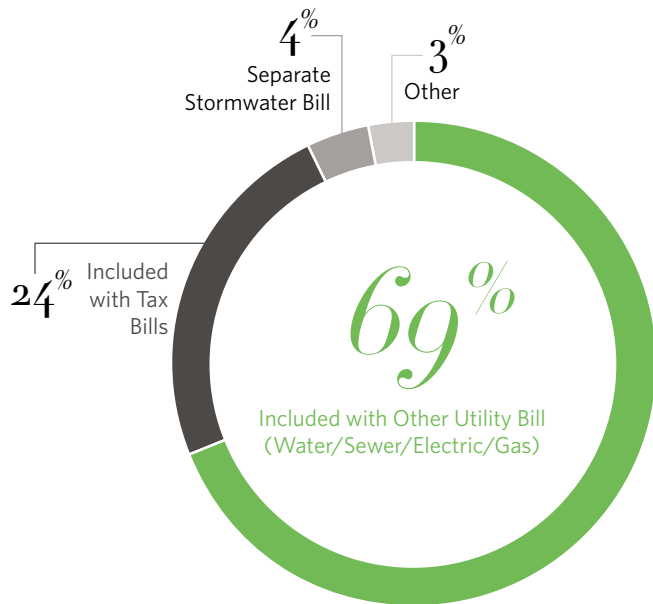
**40. How frequently does your utility update customer parcel information, such as customer classes gross and impervious areas specific to stormwater billing? (Select One)**



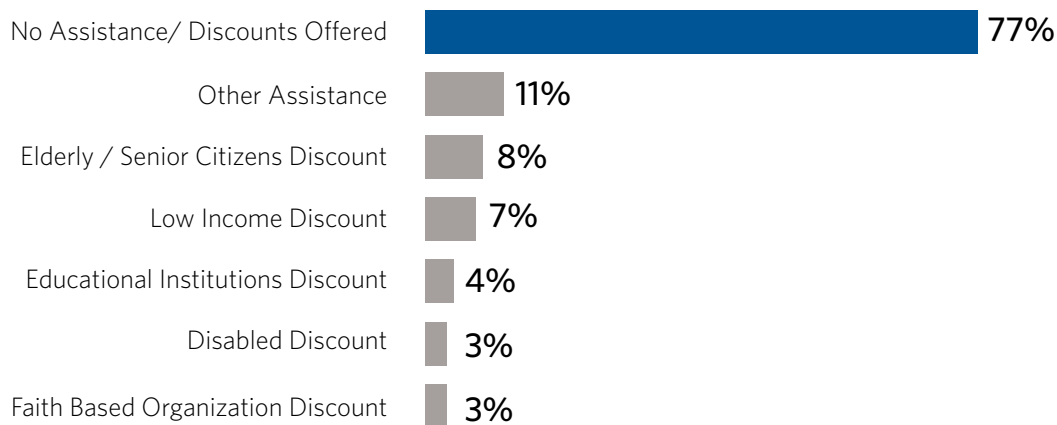
**39. Which of the following systems do you use to process and maintain, gross and impervious area billing units, specific to stormwater billing? (Select All That Apply)**



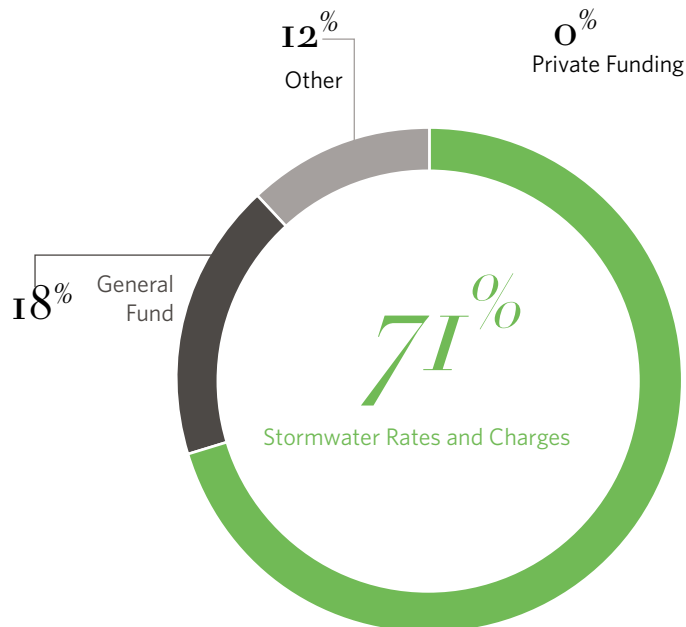
**41. How are the stormwater user fees billed? (Select One)**



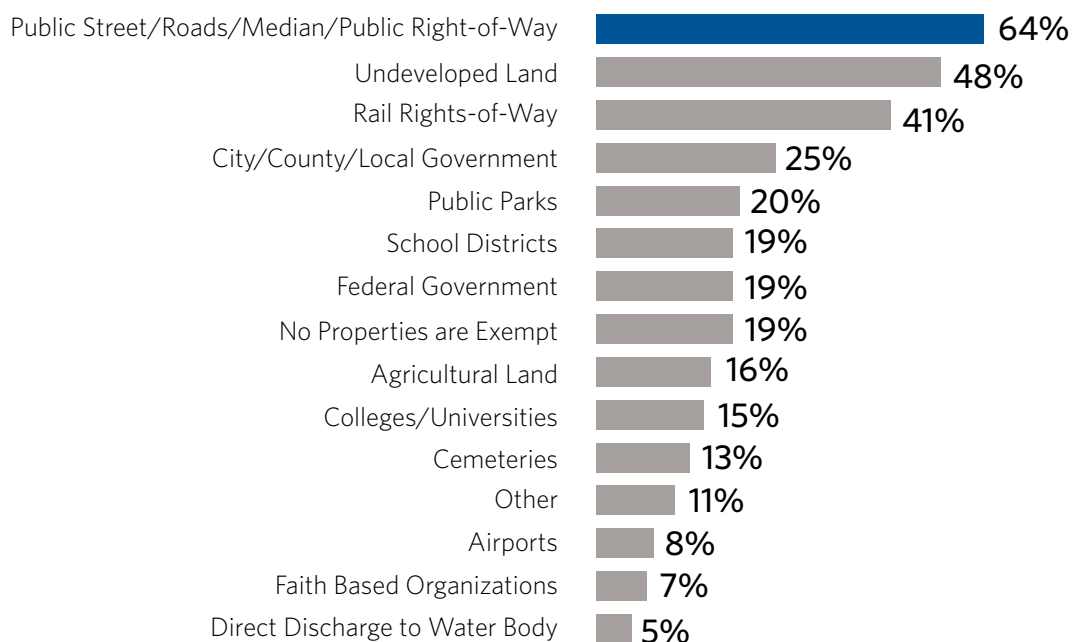
**42. Does your utility offer any customer assistance for stormwater fees, such as discounts or other fee assistance? Stormwater discounts are not the same as stormwater credits, incentives, or exemptions. (Select All That Apply)**

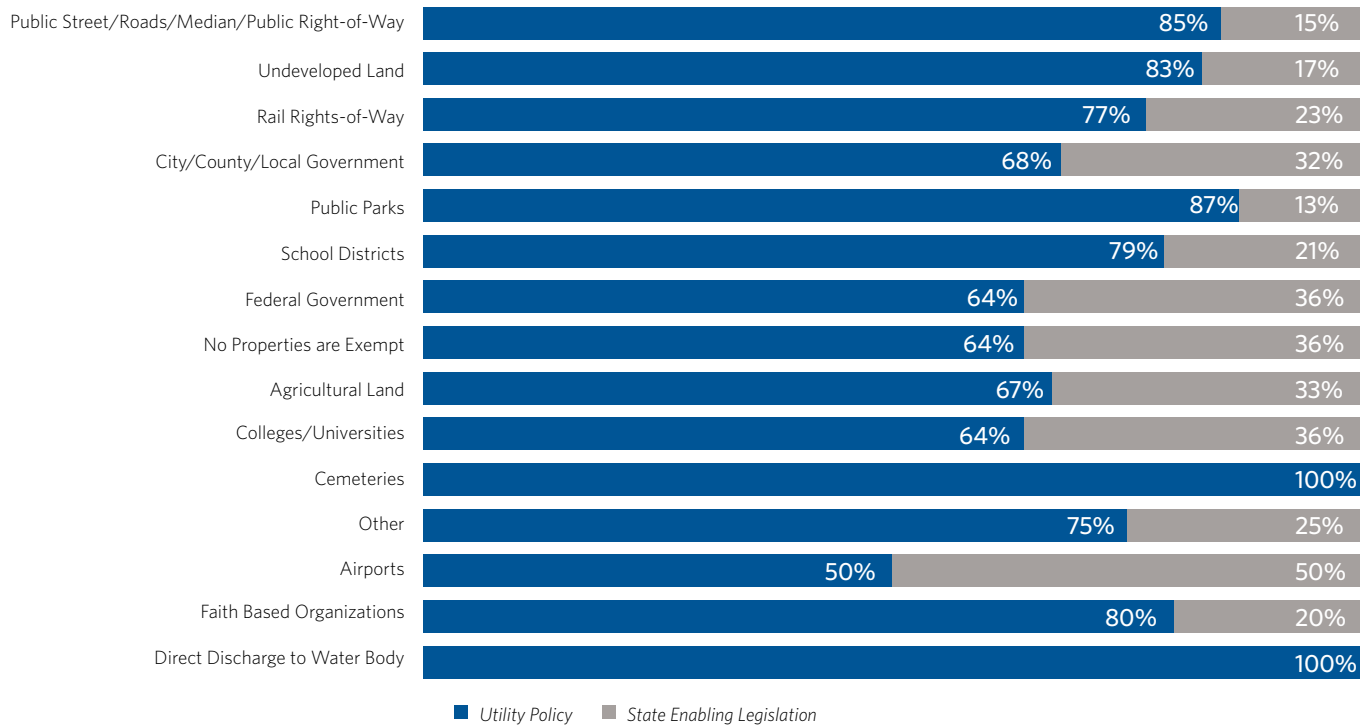


**43. How do you fund customer assistance programs (discounts or other assistance)?**

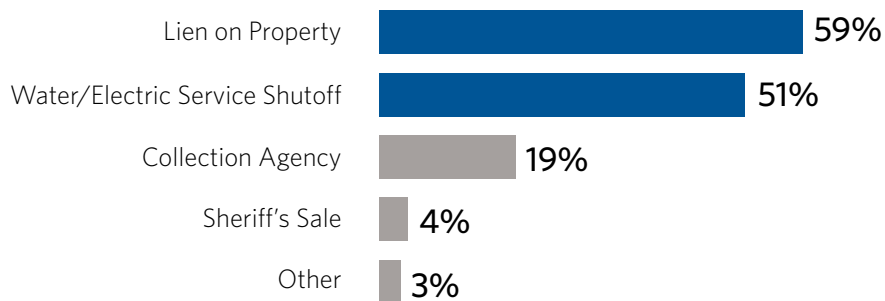


**44. Are any of the following types or classes of properties exempt from stormwater user fees? For each item you select, please also indicate if that specific exemption is based on utility policy and/or authorized by state enabling legislation. (Select All That Apply)**

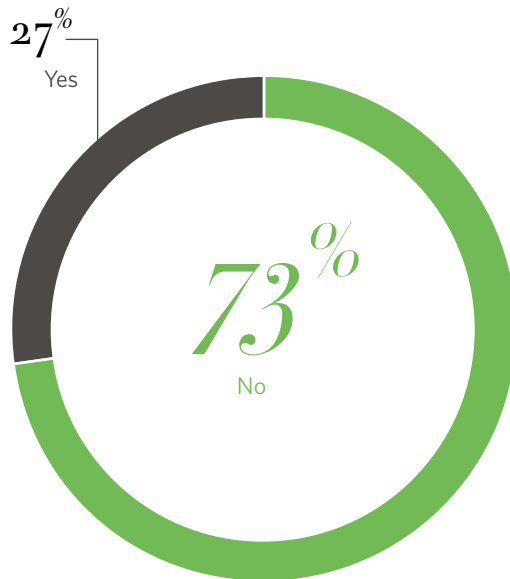




#### 45. How are payments enforced? (Select All That Apply)



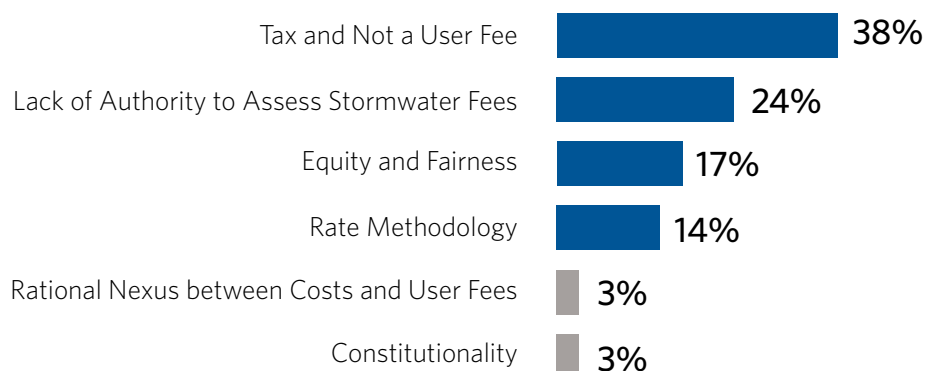
**46. Has your utility's stormwater user fees ever faced a legal challenge?**



**47. Please indicate the customer/class that challenged your stormwater user fee. (Select All That Apply)**



**48. What was the basis of the challenge? (Select All That Apply)**



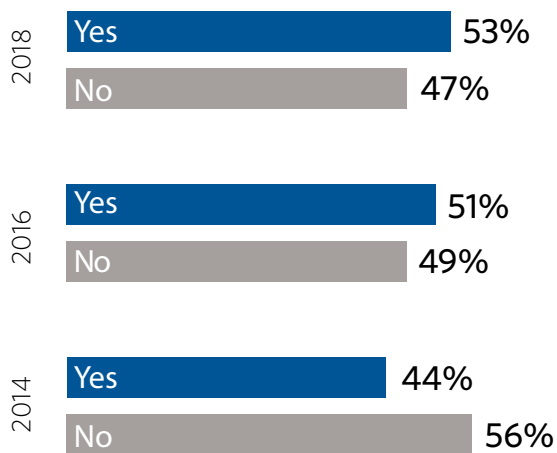
## SECTION 5

# STORMWATER CREDITS AND INCENTIVES

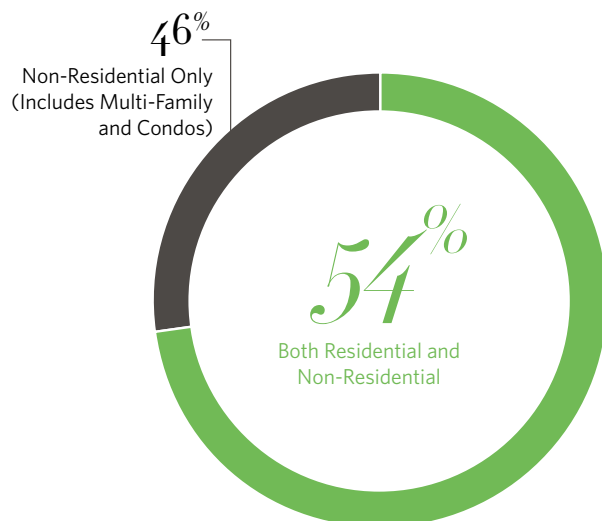


As discussed in the feature section of this report, stormwater credits can serve an important role in enhancing the perception of “user fees” by providing an opportunity for customers to reduce the magnitude of user fees in recognition of on-site stormwater management. As discussed in the survey introduction, the trend to offer credits on user fees is increasing, but at a slow pace.

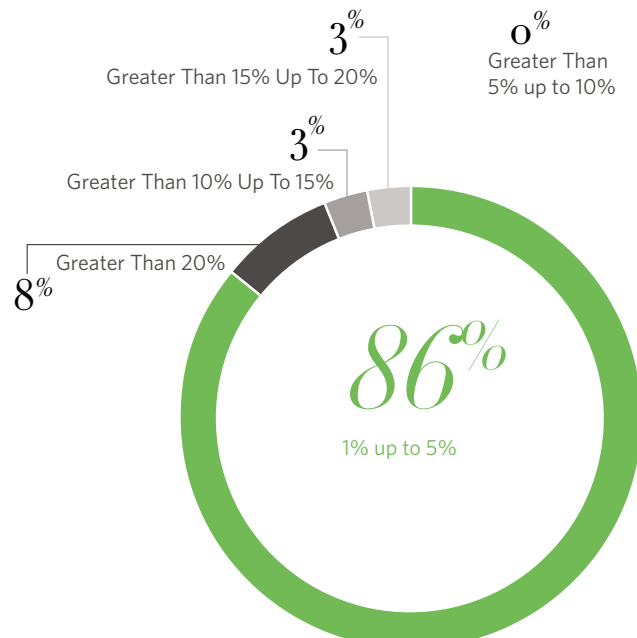
#### 49. Does your utility have a stormwater credit program?



#### 50. Please indicate the classes of parcels that are offered stormwater credits. (Select One)



#### 51. Currently, what percentage of your utility's total stormwater parcels receive credits?

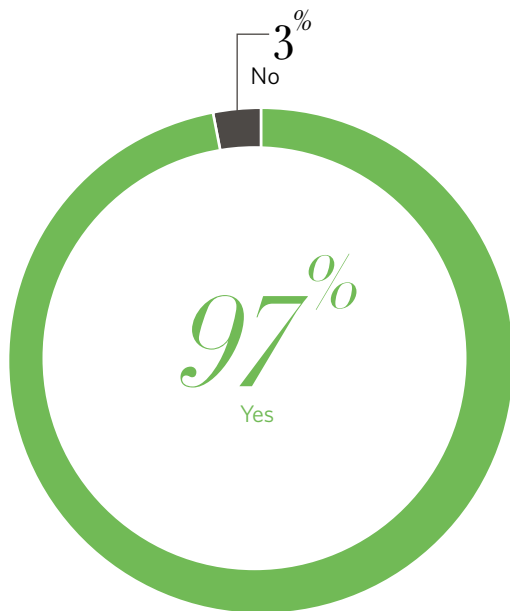




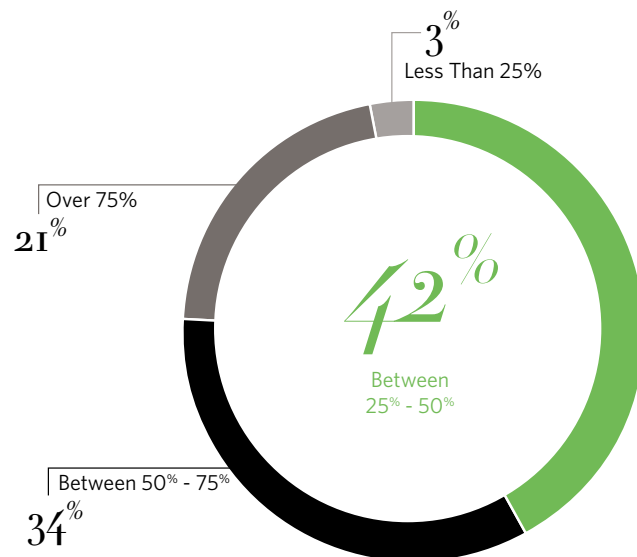
**52. Please indicate the maximum allowable credit that you allow for each of the following stormwater management actions. If your utility does not allow credit, please leave at 0%.**

Maximum Allowance Credit	Over 75%	50% - 75%	25% - 50%	Less Than 25%
Volume Reduction	10%	10%	35%	35%
Peak Flow Reduction	6%	12%	53%	29%
Water Quality Control	4%	8%	54%	34%
NPDES Permit Compliance	0%	0%	20%	80%
Education	13%	13%	25%	50%
Direct Discharge to a Surface Water Body (without using a municipal stormwater system)	20%	20%	20%	40%
Good Housekeeping Practices (Sweeping, Oil Separation, etc.)	0%	0%	0%	100%
Undeveloped/Zero Discharge	83%	0%	17%	0%
Other	20%	40%	20%	20%

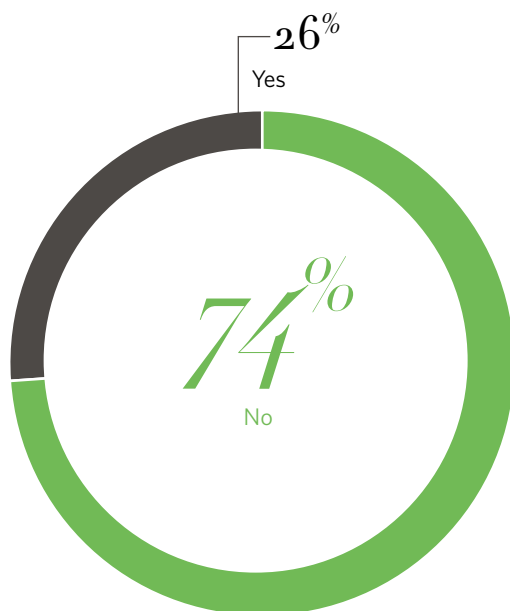
**53. Is there a maximum total credit that is offered?**



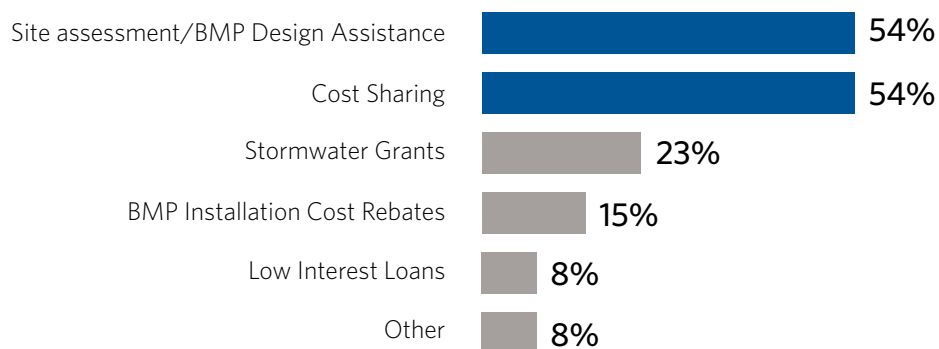
**54. If yes, what is the maximum stormwater fee reduction?**



**55. Do you offer credits for runoff management from pervious area?**



**56. Do you offer any of the following incentive programs? (Select All That Apply)**



## SECTION 6

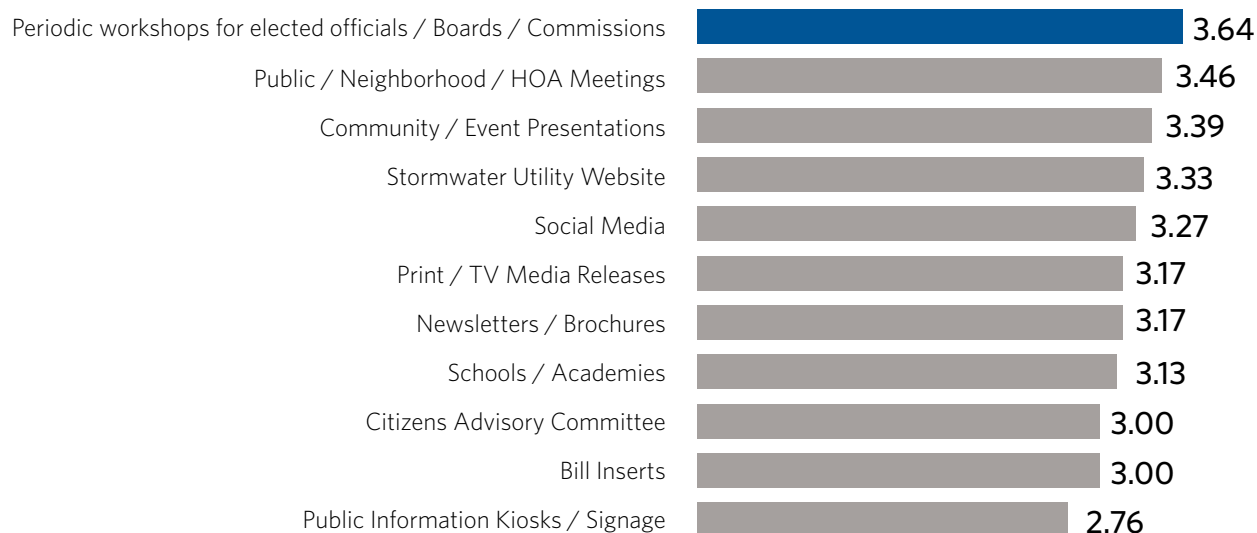
# PUBLIC INFORMATION/ EDUCATION



TO UNDERSTAND HOW UTILITIES ARE REACHING OUT TO KEY STAKEHOLDERS, WE ONCE AGAIN ASKED RESPONDENTS TO RATE THE EFFECTIVENESS OF VARIOUS COMMUNICATION METHODS.

Periodic workshops for elected officials garnered a higher ranking this year as the most effective method, followed by public meetings and community events, both of which ranked in the top three for the last two surveys also. This supports the importance of educating the public and policy makers on stormwater management and engaging them in developing integrated solutions.

**57. Please rank the effectiveness of the specific activities you have undertaken to secure stakeholder approval and support for stormwater user fees. Please rate only the activities you have undertaken. (1 = Least Effective, 5 = Most Effective)**







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