



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Board of Directors

DC Retail Water and Sewer Rates Committee

1385 Canal Street SE, Washington, DC 20003

*Tuesday, November 19, 2019
9:30 a.m.*

- 1. **Call to Order** **Rachna Bhatt, Chairperson**
- 2. **CAP Communications Plan Update (Attachment A)** **John Lisle**
- 3. **Cost of Service Study Update (Attachment B)** **Jon Davis, Consultant**
- 4. **Review of Rate Structure, FY2021 Proposed Rates and CAP Programs Update (Attachment C)** **Mike Borchers, Consultant**
Fernando Pasquel, Consultant
- 5. **DC Retail Water and Sewer Rates Committee Workplan** **Matthew Brown**
 - **FY 2020 Proposed DC Retail Rates Committee Workplan (Attachment D)**
- 6. **Agenda for January 28, 2020 Committee Meeting (Attachment E)**..... **Rachna Bhatt, Chairperson**
- 7. **Other Business** **Matthew Brown**
- 8. **Executive Session***
- 9. **Adjournment**

*The DC Water Board of Directors may go into executive session at this meeting pursuant to the District of Columbia Open Meetings Act of 2010, if such action is approved by a majority vote of the Board members who constitute a quorum to discuss: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); contract negotiations under D.C. Official Code § 2-575(b)(2); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4)(A); collective bargaining negotiations under D.C. Official Code § 2-575(b)(5); facility security under D.C. Official Code § 2-575(b)(8); disciplinary matters under D.C. Official Code § 2-575(b)(9); personnel matters under D.C. Official Code § 2- 575(b)(10); proprietary matters under D.C. Official Code § 2-575(b)(11); train and develop members of a public body and staff under D.C. Official Codes § 2-575(b)(12); decision in an adjudication action under D.C. Official Code § 2-575(b)(13); civil or criminal matters where disclosure to the public may harm the investigation under D.C. Official Code § 2-575(b)(14), and other matters provided in the Act.



Attachment A

CAP Program Outreach Phase II Update

Presentation to the DC Retail Water and
Sewer Rates Committee

November 19, 2019



Phase I Outreach

- Press releases by DC Water and DC Government
- Social media messaging from both DOEE and DC Water
- New dcwater.com/customer-assistance web page
- Bill messages and bill inserts
- Robocalls to customers with past due balances
- Messages posted on listservs and Nextdoor
- Digital advertising campaigns
- Print advertising
- Outreach to ANCs and partner agencies
- In-person customer engagement





Phase I Outreach

Comparison of Potential and Actual Enrollment:

	Potential Participants	Actual Participants
CAP2	13,750	168
CAP3	6,600	22

(As of July 2019)



Phase II Marketing and Outreach Plan

- Presented to Retail Rates Committee in July 2019
- Launched in August 2019
- Timed to coincide with the extension of the expanded CAP programs into FY2020
- **Purpose:** To further publicize and market the expanded customer assistance programs available to DC Water customers and to increase the number of customers applying for assistance.



Phase II Marketing and Outreach Plan

Key Messages:

- DC Water and the District Government are helping more customers pay their water bills.
- Eligible customers can save up to \$800 a year (FY2020).
- Various levels of assistance are available.
- Families with household incomes up to \$121,300 (FY2020) may be eligible for a discount.
- Signing up is easy.



Phase II Marketing and Outreach Plan

Audiences:

- Low-to-moderate income residential customers.
- Seniors on a fixed income.
- Social services organizations, religious institutions, government agencies and other entities that work with residents that might need help paying their water bills.



Phase II Marketing and Outreach Plan

Tactics:

- **Direct Customer Engagement:** Attend meetings and create other opportunities to engage with customers, disseminate information and potentially help customers sign up for the programs.
- **Partnerships:** Use existing and creative new ways to team with outside partners and reach potential new audiences.
- **Media Campaign:** Paid exposure to broader audiences, creating high visibility messaging to customers and stakeholders.
- **Earned Media:** Amplify the marketing collateral, outreach and media campaign with an aggressive effort to garner earned media coverage.



Direct Customer Engagement

Public Pop-ups to engage with customers and disseminate information

10/2 - Walk To School Day at Lincoln Park

10/3 - Columbia Heights Metro

10/15 - Farragut Square

10/17 - Georgia Avenue-Petworth Metro Station

10/23 –Imagine A Day Without Water at Payne Elementary School

10/24 - Navy Yard-Ballpark Metro Station

10/29 - 2100 Martin Luther King, Jr. Avenue SE





Direct Customer Engagement

Senior Wellness Center Visits

- Visited all 7 senior wellness centers in the District.
- Engaged with close to 400 seniors and encouraged 40 to start applications on the spot.
- Provided contact sign-up sheets and signed applications to DOEE.
- Also attended 4th Annual Senior Wellness BBQ hosted by DC Office on Aging, and Arthur Capper & Capitol Quarter Appreciation Day Block Party.





Direct Customer Engagement

Community Outreach

Engaged with customers and promoted CAP programs at all public events DC Water participated in from July to October.





Direct Customer Engagement

New Bill Insert

Distributed with all customer bills beginning in late September.



DC WATER AND YOU Investing in Our Future Together

Like many communities across the country, the District is challenged with older and outdated water and sewer infrastructure. Keeping this vibrant city and its inhabitants thriving requires an ongoing investment in new pipes and pumps and other upgrades. In 2020 we will be:

- replacing five miles of water lines to improve water quality and help reduce the number of water main breaks
- inspecting 30 miles of sewer pipes to prevent failures
- building a new deep tunnel to continue to help dramatically improve the health of the Anacostia River and reduce the flooding risk in Northeast DC
- refurbishing facilities at Blue Plains to ensure we continue to deliver high quality water to the Potomac River and meet our permit requirements; and
- commissioning a large-scale solar power program to generate 4.5 MW, reducing electricity costs and our dependence on the grid

To ensure delivery of critical water and sewer services, our Board of Directors has approved new rates for Fiscal Year 2020. Additionally, the Board approved a shift in the way we fund the Clean Rivers Project. The new rates go into effect October 1, 2019.



APPROVED AVERAGE MONTHLY RESIDENTIAL WATER AND SEWER BILLS FOR FY 2020*

	FY 2020
DC Water Retail Rate ¹	\$76.36
Clean Rivers Impervious Area Charge	\$20.94
DC Water Customer Metering Fee ²	\$3.86
DC Water Water System Replacement Fee ³	\$6.20
Subtotal: DC Water Rates & Charges	\$107.48
Increase Over Prior Year	\$6.05
District of Columbia PILOT Fee ⁴	\$3.56
District of Columbia Right-of-Way Fee ⁵	\$1.58
District of Columbia Stormwater Fee ⁶	\$2.67
Subtotal: District of Columbia Charges	\$7.81
Total Amount Appearing on DC Water Bill	\$114.69
Increase Over Prior Year	\$6.57

* DC Water bills and collects the PILOT, ROW, and Stormwater fees on behalf of the District.
¹ Average average monthly consumption of 10,000 gallons. ² The DC Water Customer Metering Fee varies by meter size. The fee decreases as the meter size and operating as a service. ³ The DC Water System Replacement Fee varies by meter size. The fee goes from \$0 to \$100 based on meter size and operating as a service. ⁴ The DC Water PILOT Fee varies by meter size. ⁵ The DC Water Right-of-Way Fee varies by meter size. ⁶ The DC Water Stormwater Fee varies by meter size.

Rate Shift for the Clean Rivers Impervious Area Charge (CRIAC)

The CRIAC charges on bills will gradually change to provide more relief to DC Water customers who consume less water. The CRIAC fee, which is based on a property's impervious area, will be combined with a volumetric charge for the water used on the property to fund the Clean Rivers Project. Currently, most residential customers pay a CRIAC charge of \$23 per month. Customers with more impervious areas pay more. Under the revision, the CRIAC charge will decline to \$20.94 in FY 2020, while the sewer rate will rise. Many customers will see minimal change in their bills as a result. However, shifting some of the Clean Rivers Project costs to the volumetric rate gives customers more control over the amount they pay towards the project. More info: dcwater.com/rates.

Financial Assistance Programs Extended for Another Year

The expanded financial assistance programs that were introduced this past year are being extended through September 2020. These programs are jointly funded by DC Water and the District Government, under the leadership of Mayor Bowser. It is easy to apply and you could save up to \$800 annually on your water bills.

Residential Programs
 Our original Customer Assistance Program (CAP) provides eligible DC Water customers a discount on the first 400 cubic feet (3,000 gallons) of water and sewer services used each month. Eligible households will receive an additional fifty percent (50%) reduction in the monthly CRIAC and a Water Service Replacement Fee waiver. The annual discount is approximately \$800.

CAP2: Customer Assistance Program II (CAP2) provides eligible DC Water customers a discount on the first 300 cubic feet (2,250 gallons) of water and sewer services used each month (with the exception of PILOT and ROW fees) and a 50% reduction in the monthly CRIAC. The annual discount is approximately \$550.

CAP3: Customer Assistance Program III (CAP3) provides eligible DC Water customers with a discount of 75% off of the monthly CRIAC. The average annual discount is approximately \$188. This Residential CRIAC Relief Program is funded by the District Government.

HOUSEHOLD INCOME LIMITS FOR EXPANSION OF THE CUSTOMER ASSISTANCE PROGRAM (CAP)			
Size	CAP1 Income Limit 60% of AMI ¹	CAP2 Income Limit 80% of AMI ¹	CAP3 Income Limit 100% of AMI ¹
1	\$32,814	\$67,950	\$84,900
2	\$42,911	\$77,650	\$97,050
3	\$53,007	\$87,350	\$109,150
4	\$63,104	\$97,050	\$121,300
5	\$73,201	\$104,850	\$121,300 ²
6	\$83,297	\$112,650	\$121,300 ²
7	\$93,394	\$120,350	\$121,300 ²
8	\$97,094	\$121,300 ²	\$121,300 ²

¹Income is capped based on language from the Budget Support Act. ²Area Median Income. ³Area Median Income.

Customers with household incomes less than \$121,300 are encouraged to see if they qualify. The District Department of Energy and the Environment (DOEE) administers the programs and determines eligibility. PLEASE NOTE: Customers who were enrolled for fiscal year 2019 will need to re-apply and be re-enrolled.

To apply or learn more about these programs, visit dcwater.com/customer-assistance or call 311.

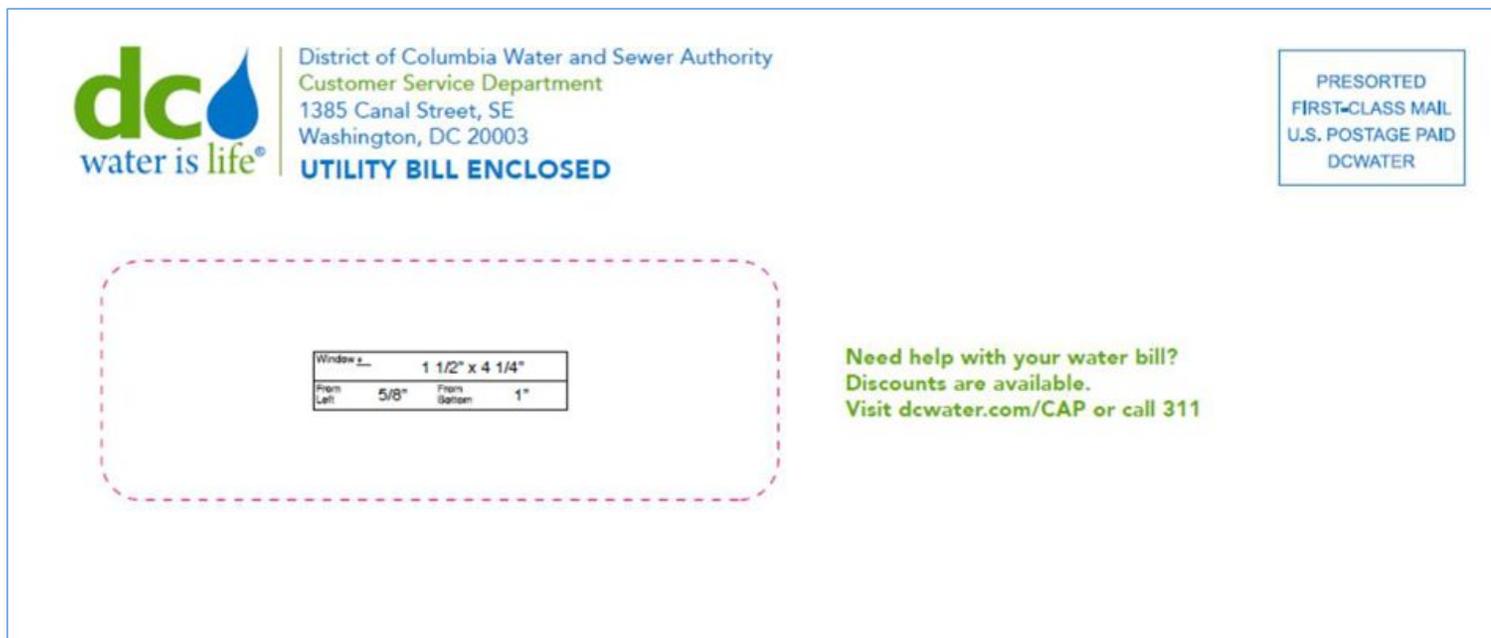
Nonprofit Relief Program
 The District's CRIAC Nonprofit Relief Program assists eligible nonprofit organizations facing financial hardship with the payment of their Clean Rivers Impervious Area Charge (CRIAC). Participating organizations can receive credits of up to 90% of the CRIAC portion of their water bill. For more information, visit doee.dc.gov/service/cricarelief or call 311.





Direct Customer Engagement

Bill Envelopes - 160,000 envelopes ordered printed with message “*Need help with your water bill? Discounts are available. Visit dcwater.com/CAP or call 311.*”

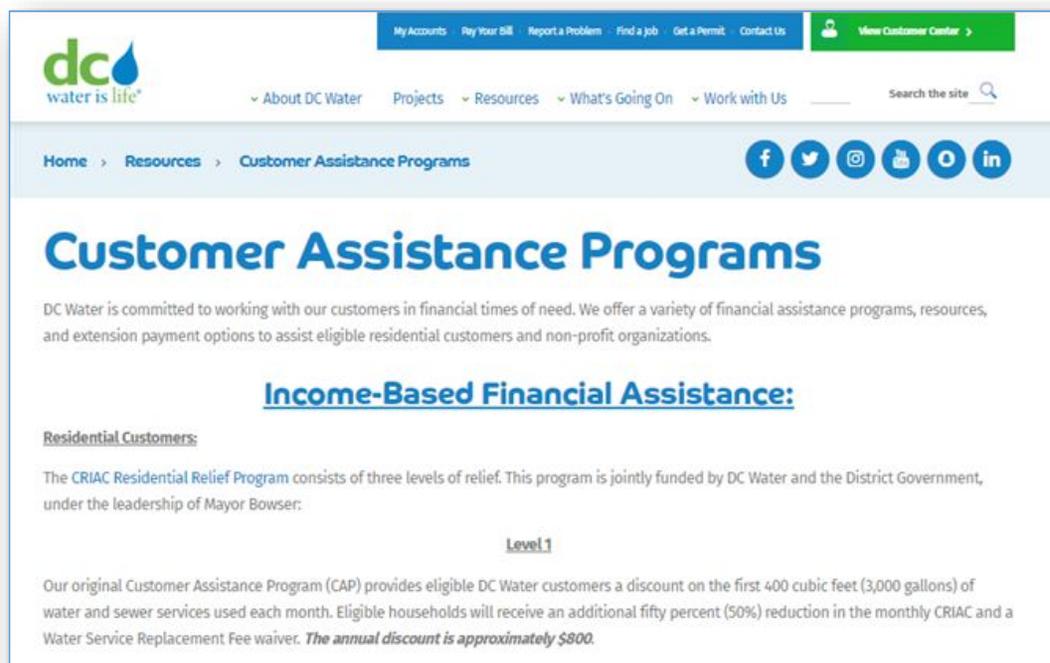




Direct Customer Engagement

Website

- Created a new landing page on dcwater.com to direct customers.
- dcwater.com/CAP went live August 1.
- Has easy to follow instructions and links to DOEE application.
- Allows us to track engagement.

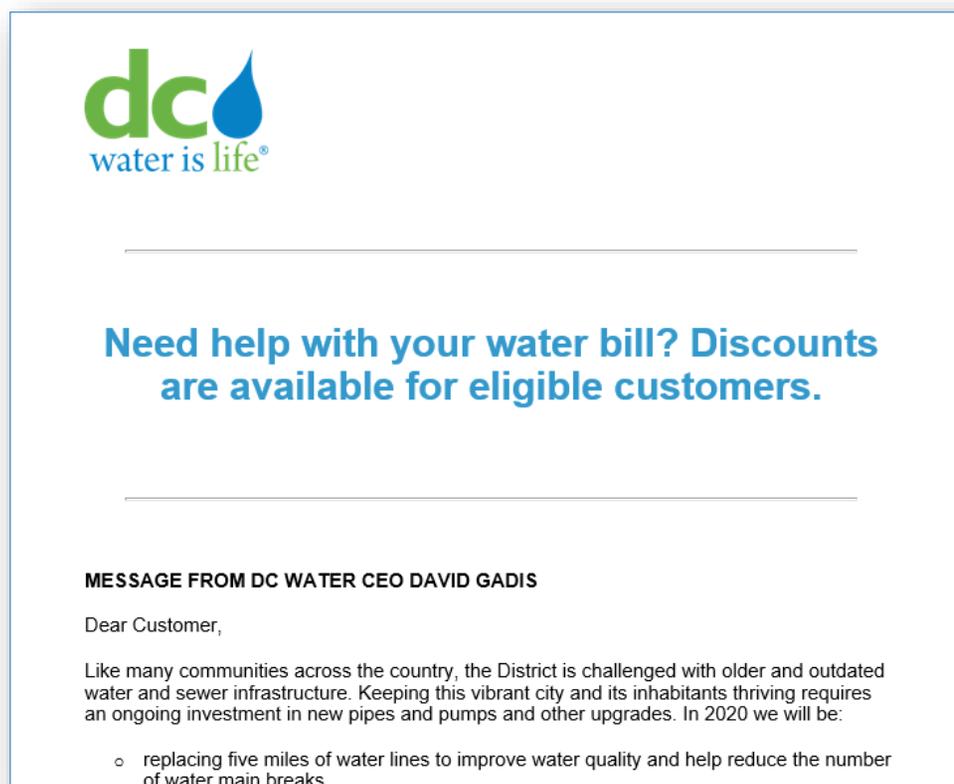




Direct Customer Engagement

Customer Email

- Email message from CEO David Gadis sent to 79,000 customer accounts on September 26 and 27.





Direct Customer Engagement

Customer Email

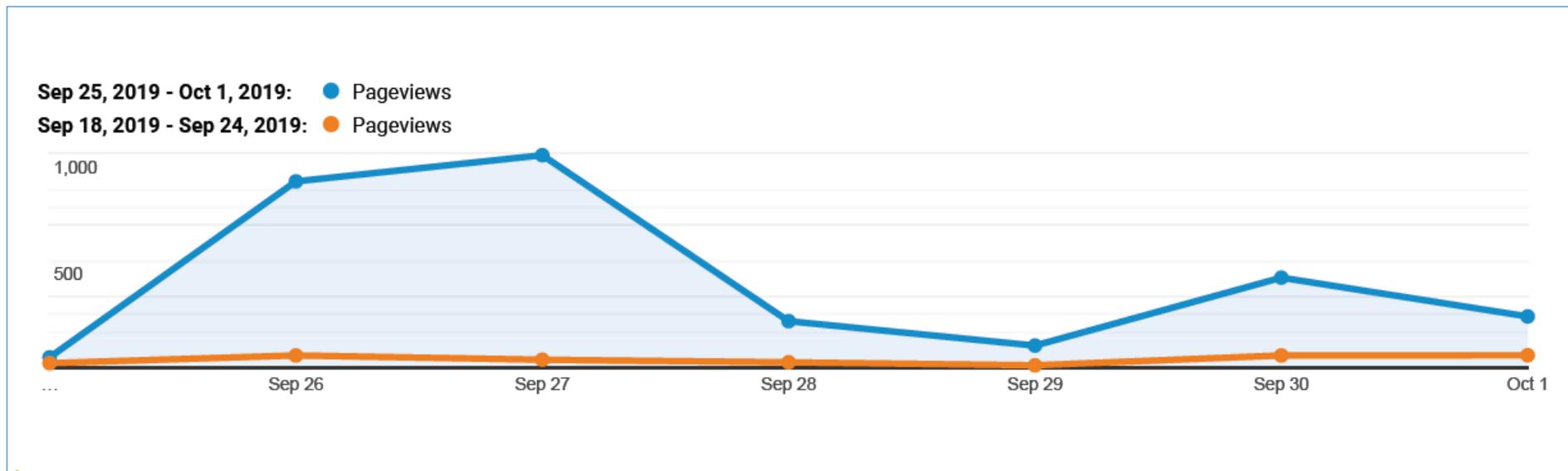
- Email generated an immediate and sharp increase in traffic to our Customer Assistance page, including **870** users on September 26 and **992** on the 27th.
- DOEE also reported a “significant spike” in applications. Between September 26-30, **53** new customers signed up for CAP1, **50** for CAP2 and **16** for CAP3.





Direct Customer Engagement

Customer Email – In all there were 3,874 page views over two week period (9/25-10/9) compared with 425 page views for the prior two weeks.

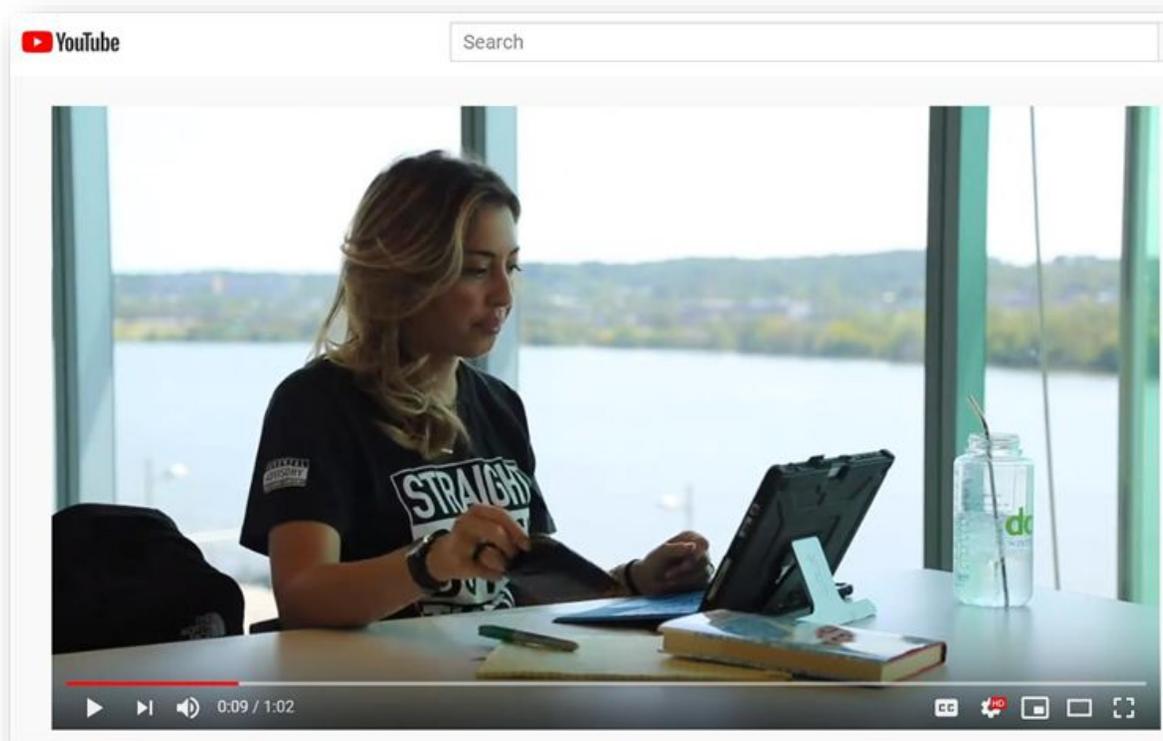




Direct Customer Engagement

New Video

Created a short video in-house to show how easy it is to apply for CAP assistance and now using that video across our website and social media platforms.

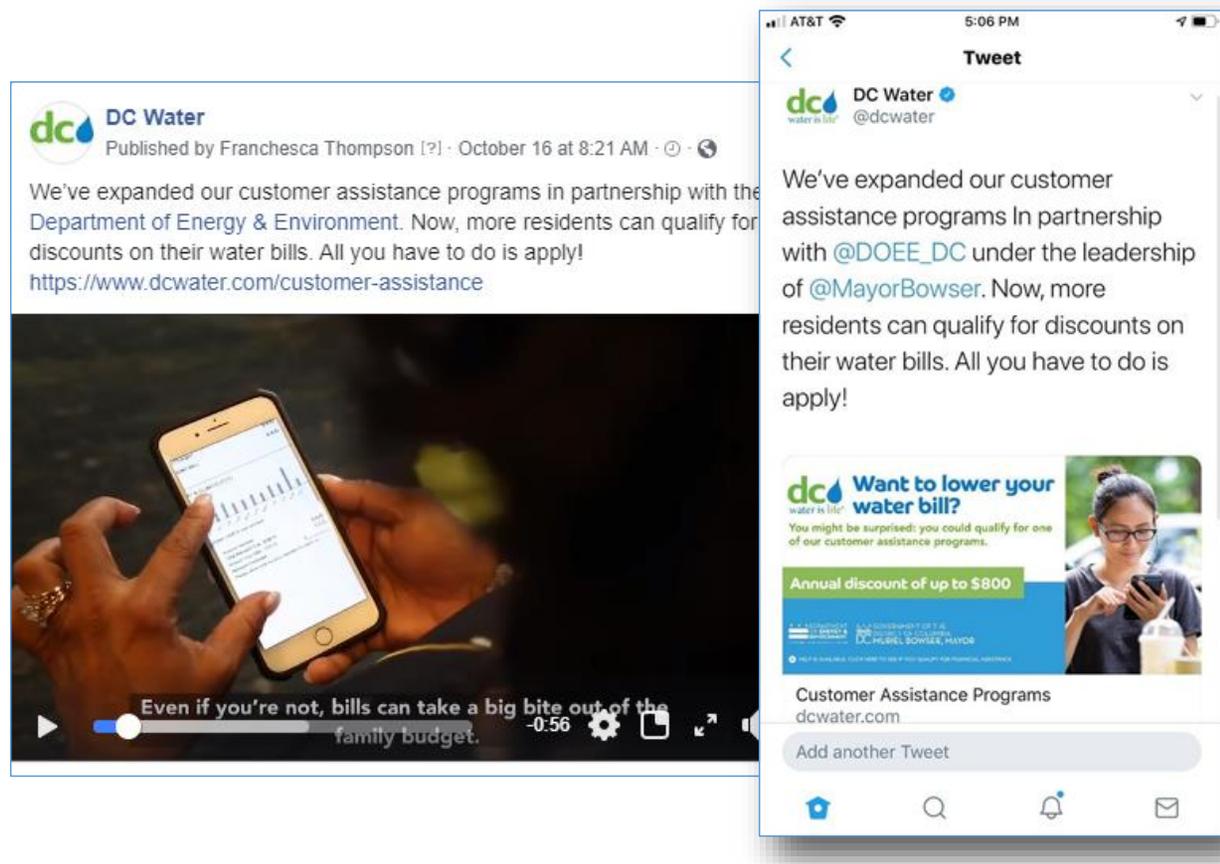




Direct Customer Engagement

Social Media

Continued to create and post content to inform customers about CAP programs and the extension to FY2020.





Direct Customer Engagement

Community Listservs

- Posted information again on all community listservs DC Water has access to.
- Message about program extension was posted September 18-24.

Need help paying your water bill? DC Water extends financial assistance programs for another year

The expanded financial assistance programs that were introduced this past year are being extended through September 2020. These programs are jointly funded by DC Water and District Government, under the leadership of Mayor Bowser. It is easy to apply, and you could save up to \$800 annually on your water bills.

Residential Programs:

CAP1: Our original Customer Assistance Program provides eligible DC Water customers a discount on the first 400 cubic feet of water and sewer services used each month. The annual discount is approximately \$800.

CAP2: Customer Assistance Program II provides eligible DC Water customers a discount on the first 300 cubic feet of water and sewer services used each month. The annual discount is approximately \$550.

CAP3: Customer Assistance Program III provides eligible DC Water customers with a discount of 75% off of the monthly CRIAC. The average annual discount is approximately \$188.

If your household income is less than \$121,300, you are encouraged to see if you qualify. **To apply or learn more about these programs, visit dcwater.com/customer-assistance or call 311. You must reapply for FY 2020 (begins October 1, 2019) even if you were already receiving Customer Assistance in 2019.**



Partnerships

District Department of Energy and Environment – Customer Service and Communications leadership met with DOEE program and communications staff on August 2 to strategize about how to promote the program.

DC Health Link – Information Sharing call on July 19 with team at DC Health Link to learn more about how they promote the health insurance program.



Partnerships

AARP DC – Great support from local chapter.

- Blog post featured on their website as of September 23.
- Included in monthly email newsletter to 17,000 members on October 28.



DC Water's Expanded Assistance Program is Taking Applications

SEP 13, 2019

DC Water residential customers may save as much as \$800 a year if you qualify for new customer assistance programs. There are different levels of assistance for low to moderate income customers, as well as seniors living on fixed incomes.



Partnerships

AARP DC

- Created video about program and posted to chapter Facebook page on September 25.
- Article scheduled to run in November issue of AARP The Bulletin for mid-Atlantic states.





Partnerships

ANCs and Civic Associations – Currently offering presentations to promote programs, share information and explain the application process.

Meetings completed to date include:

- Marshall Heights Civic Association
- Community meeting hosted by ANC 5D
- Separate community meeting hosted by Single-Member District ANC 5D02
- ANC 4D Fall Harvest Festival

This effort began in and is ongoing.



Partnerships

Faith Community

- Presented at National Capital Baptist Convention of Washington DC and Vicinity.
- Shared information about CAP programs with participating reverends and asked them to share with their respective congregations.
- Planning broad outreach to churches and other faith-based organizations.



**National Capital Baptist Convention
of Washington DC & Vicinity**

57th Annual Session

October 23-25 2019

Wednesday October 23

Rev. Charles W. McNeil, Jr., President

Thursday October 24

9:00 a.m.
Rev. Freddie Davis
Pilgrim Rest Baptist Church
Washington, DC

9:00 a.m.
Rev. Erlo D. Barksdale
St. Charles Baptist Church
Washington DC

9:00 a.m.
Rev. Charles E. Jackson
Pilgrim Baptist Church
Silver Springs, MD

7:00 p.m.
Rev. Frank Kelly
Mt. Calvary Baptist Church
Alexandria, VA

Friday October 25

9:00 a.m.
Dr. Stephen E. Tucker
VP-At-Large, Annual Session Chairperson

5:30 p.m.
**Thursday, October 24
President's Reception**
Homewood Suites | 9103 Basil Ct
Largo, MD 20774

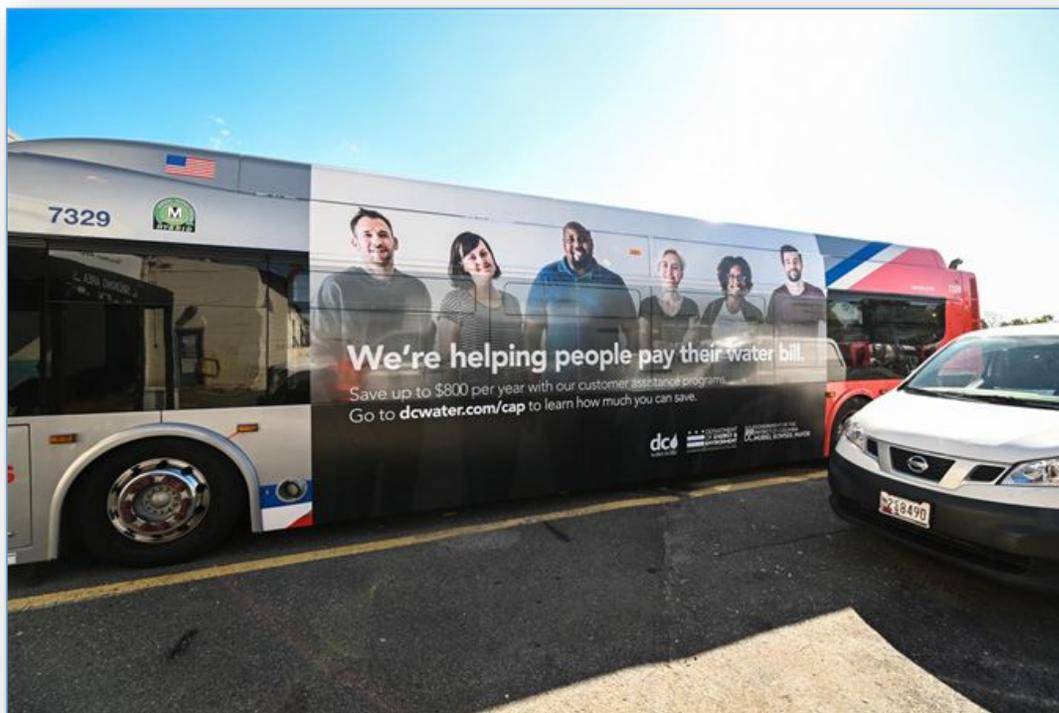
Purity Baptist Church
1325 Maryland Avenue, NE
Washington DC 20002
Rev. Robin Toogood
Host Pastor

BUSINESS EXHIBIT DISPLAYS



Paid Media Campaign

- Paid exposure to broader audiences, creating high visibility messaging to customers and stakeholders
- Print, outdoor and digital advertising
- September - October
- Total Investment: \$65,000





Paid Media Campaign

Print Advertising

- Placed large color and black and white advertisements in local publications including the Washington Post, Hill Rag and Washington Informer Newspapers
- Ads ran in Late September
- Total Audience: 2,918,842**





Paid Media Campaign

Outdoor Advertising

Super Ultra King Bus Ads

Route: Southern Avenue Garage (5 buses)

Circulates Northwest DC including Tenleytown, Woodley Park, Adams Morgan, Glover Park, Foxhall, Palisades and into downtown. Buses also travel through Navy Yard, SE and Southwest, NoMa, H Street, Union Station in Northeast.

Run Dates: October 7 – November 3

Traffic Count (entire campaign): 564,695





Paid Media Campaign

Outdoor Advertising

Placement: Metro Rail 2-Sheet Posters (8 total posters)

- Cleveland Park (1)
- Congress Heights (1)
- Fort Totten (1)
- Friendship (1)
- Metro Center (9th St. exit)
- Navy Yard (2 posters: 1 @ each exit)
- Van Ness (1)

Run Dates: 10/7 – 11/3

Campaign Station Circulation:
4,267,844





Paid Media Campaign

Digital Advertising

The DC Water CAP Campaign launched 9/30/2019 with the goal of driving qualified traffic to the DC Water website.

Flight Dates: September 30 – October 30

Demo Target: Homeowners, Renters

Geo Target: Washington, DC

Tactics: Prospecting, Retargeting, 3rd Party Prospecting

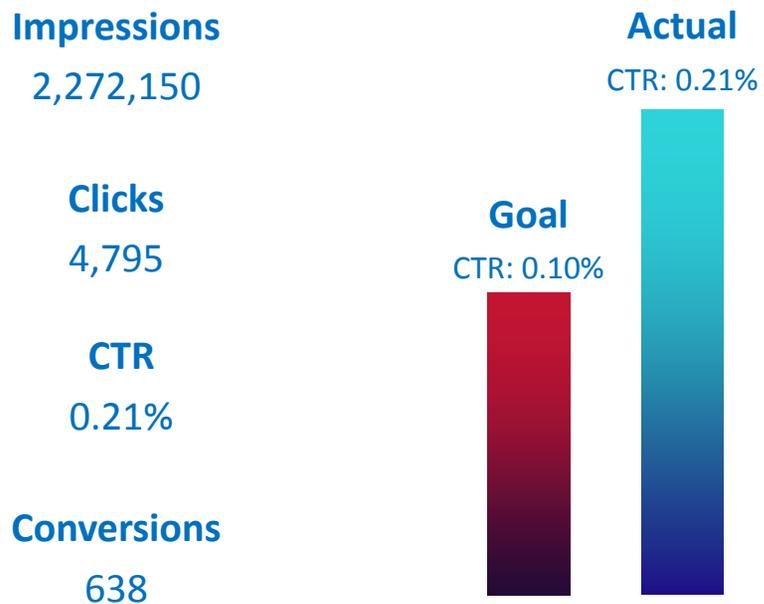
Goal: Drive clicks





Paid Media Campaign

Digital Campaign Performance



The Click-through-rate (CTR) for the digital media buy surpassed the industry average by more than 50%.

Engaging mobile units supported driving high-quality site traffic



Paid Media Campaign

Digital Marketing Overview

Third-Party targeting performed the best delivering the highest impressions and clicks.

	Prospecting	Retargeting	Third-Party
Impressions	26,229	7,717	2,238,134
Clicks	11	18	4,766
CTR	0.04%	0.23%	0.21%

The chart above describes tactics that were used to reach customers in this digital campaign.

KEY:

- **Prospecting** helps attract new audiences who are likely to convert and become customers. By targeting digital profiles similar to those of your existing customers, prospecting automates new customer acquisition.
- **Retargeting** helps you stay in front of bounced traffic after they leave your website. Retargeting is designed to help reach the 98% of users who don't convert right away.
- **Third-party** ad serving is when a website operator or publisher presents content for users and the site also includes advertising delivered by another provider.



Paid Media Campaign

Top Performing Creative

Because of the nature of customer’s lives, we find in most campaigns that mobile sizes perform better, which is evident here with the significant clicks with the 320x50 mobile ad.



	320x50	728x90	300x250
Impressions	1,264,835	352,037	486,314
Clicks	3,724	638	267
CTR	0.29%	0.18%	0.05%



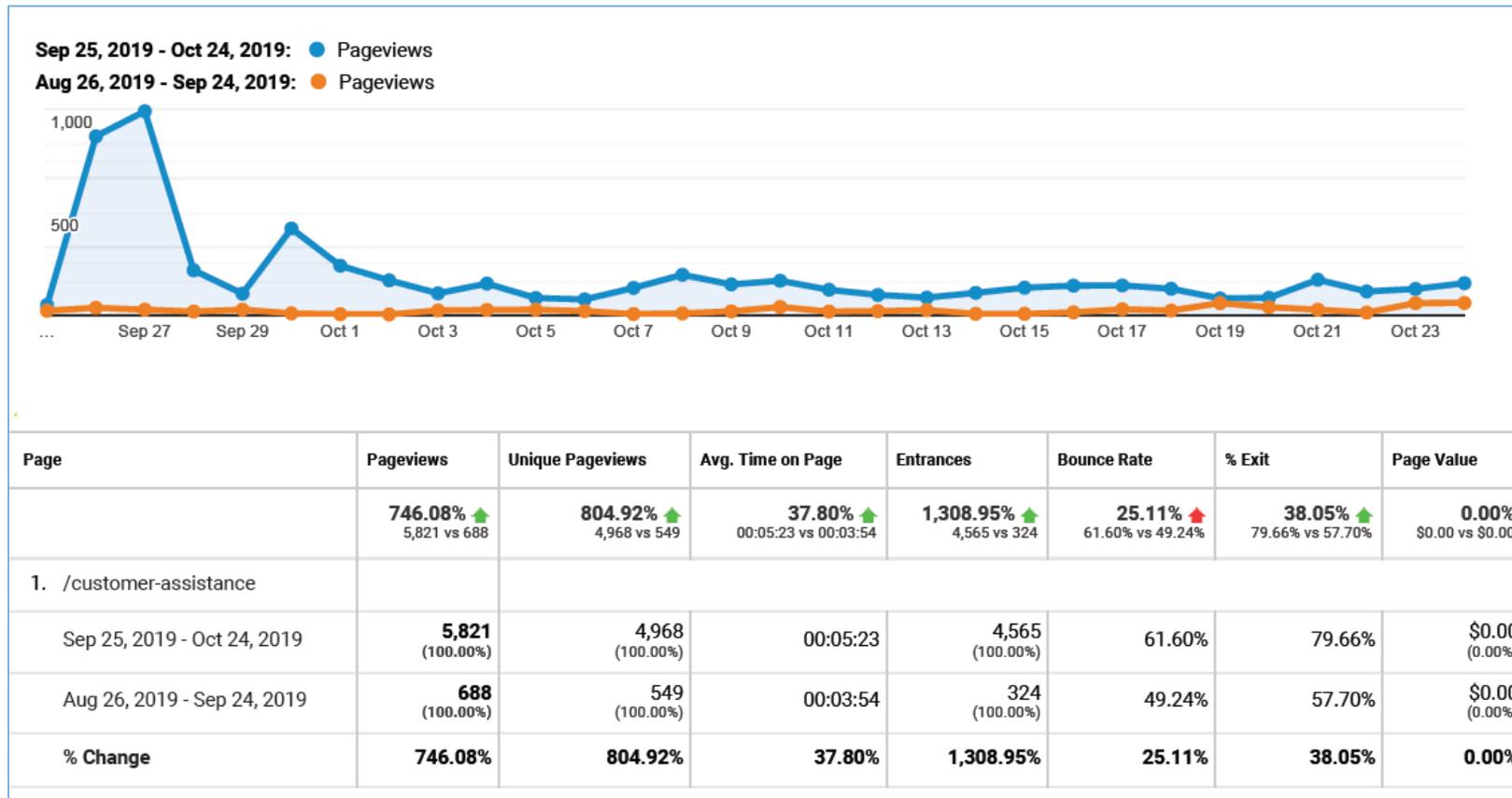
Paid Media Campaign

Campaign Insights

- The use of outdoor and DC Water placed print ads created a great awareness element to the digital campaign to drive overall engagement.
- The digital ads performed best among seniors between the ages of 55 – 64.
- Customers with income levels about \$60,000 were most apt to seek information on this discount.
- Retail purchasers were also the most likely to inquire on cost savings.



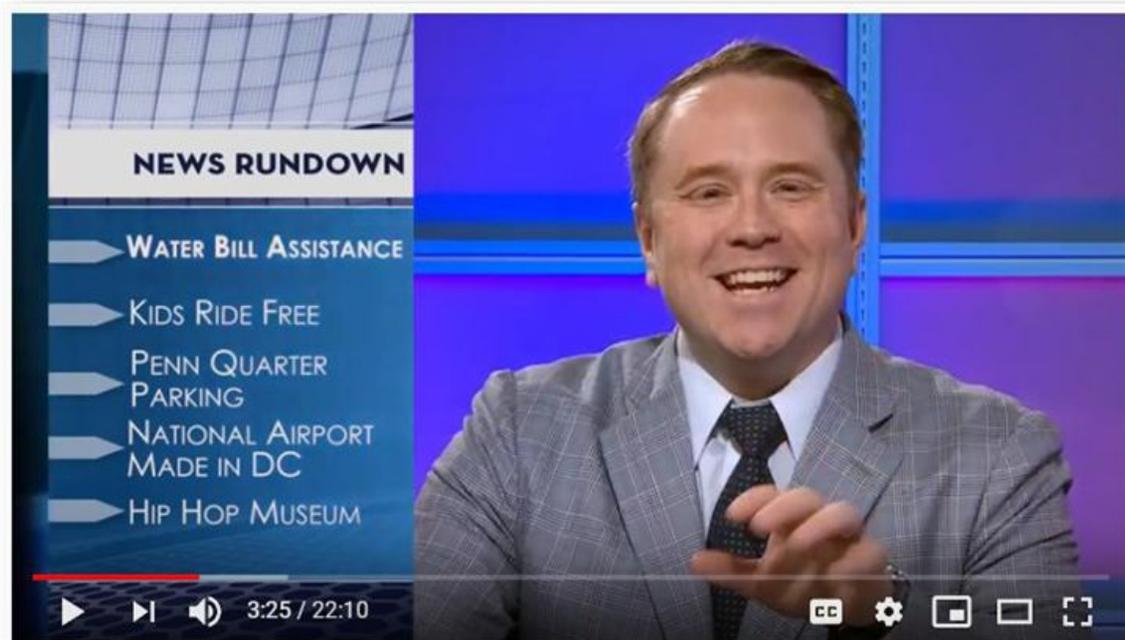
Web Traffic





Earned Media

- District of Columbia Network (DCN) ran story about CAP programs on *We Are Washington* show in August
- Will run four minute segment about NEBT and CAP on November 25 show.
- DCN is also running our CAP video as a public service announcement daily.





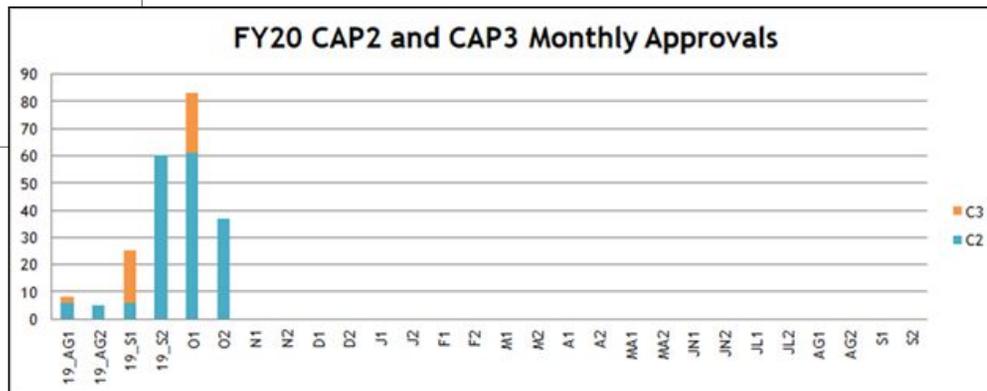
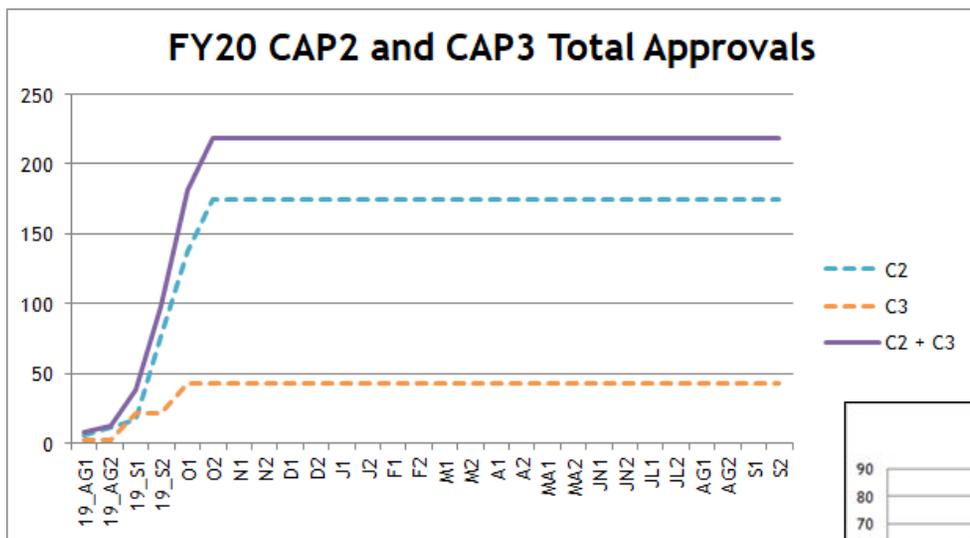
Enrollment

Fiscal Year 2019				
	C1	C2	C3	Total
Enrollments	3,150	260	46	3,456

Fiscal Year 2020				
	C1	C2	C3	Total
Enrollments	663	165	21	849



Enrollment





RAFTELIS

Attachment B

DC WATER

Retail Rates Committee

2021 Cost of Service Study

Draft Results | November 19, 2019

AGENDA

- Background
 - Objectives of the Cost of Service Study
- Revenue Sufficiency Analysis
- Cost of Service Analysis
 - Background
 - Methodology
- Next Steps

Background

Background

DC Water has conducted a Cost of Service (COS) Study every three years, and will now conduct a COS Study every other year to coincide with two-year rates. Raftelis performed prior studies in 2012, 2015, and 2018.

Study Components

1. Revenue Sufficiency Analysis – Do the proposed rates recover adequate revenue to meet expenditures?
2. Cost of Service Analysis / Rate Equity – Are proposed existing rates equitably recovering the costs of providing service?
3. Alternative Rate Structure Analysis – Are there alternative rate structures that may more effectively meet DC Water's highest priority pricing objectives?

DC Water Rate Setting Policies

- Resolution #11-10:
 1. Rates that, together with other revenue sources, **cover current costs** and **meet or exceed all bond** and **other financial requirements** as well as goals set by the Board
 2. Rates that yield a **reliable and predictable** stream of revenues, taking into account trends in costs and in units of service
 3. Rates based on **annually updated forecasts of operating and capital budgets**
 4. Rate structures that are **legally defensible**, based on objective criteria, **and transparently designed**
 5. Rate structures **that customers can understand** and DC Water can **implement efficiently and efficaciously**
 6. Rates increases, if required, are implemented **transparently and predictably**

Revenue Sufficiency Analysis

Revenue requirements are the total cash needs of the utility to fund operating and capital costs including all debt service obligations and reserve fund contributions.

Revenue Sufficiency Process

Raftelis projects revenue based on proposed rates and units of service (number of accounts, billed consumption, and impervious ERUs)

- Will proposed rate increases be sufficient to fund DC Water cash needs in FY 2021 and 2022?
- Will reserve funds be maintained at target levels?
- Is debt service coverage adequate to meet required bond covenants?

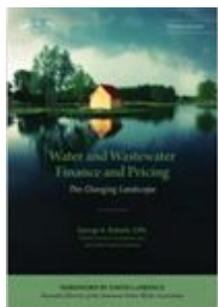
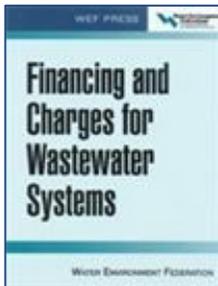
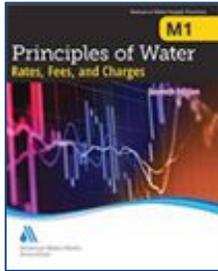
Cost Drivers & Trends

- Capital costs are increasing due to regulatory requirements and infrastructure rehabilitation, particularly for wastewater and CSO mitigation
- Last year's CIP added funding for small diameter water and sewer main replacement
- DC Water continues efforts to lower Operating and Maintenance expense increases to keep rates as low as possible for customers
- Per capita consumption continues to decrease causing overall billable consumption to decline

Cost of Service Process

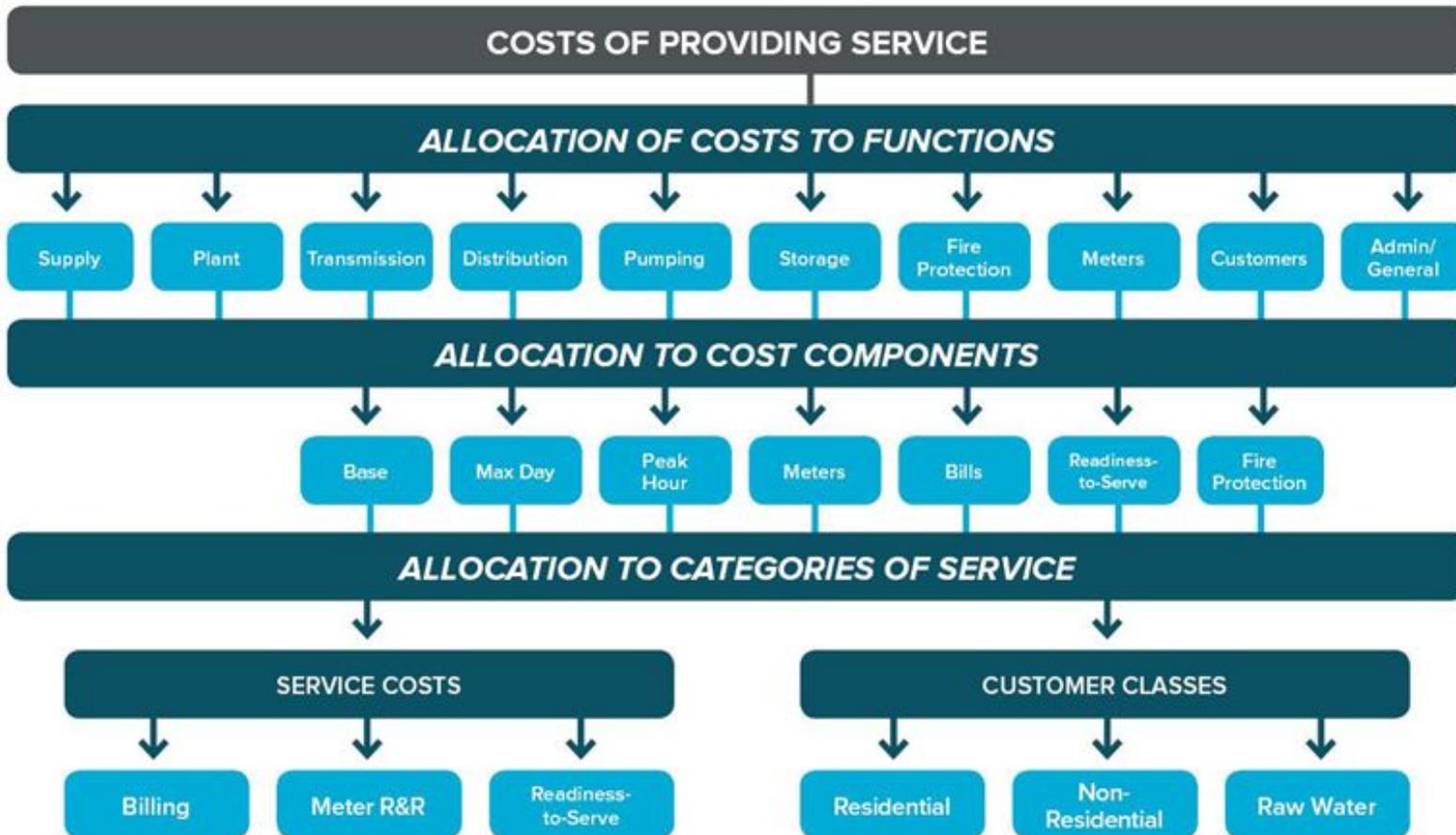
Cost of service analyses apportion the revenue requirements to customers based on the demands they place on the utility system.

Basis for COS Analysis



- Cost of service (COS) analysis is standard across the water and wastewater industry
 - Considered the most rigorous form of rate-setting
- Designed to precisely allocate revenue requirements to each customer class in proportion to the demands that customer class places on utility infrastructure
- The COS process is customized to the circumstances of each utility and its rate structure

Cost of Service Methodology



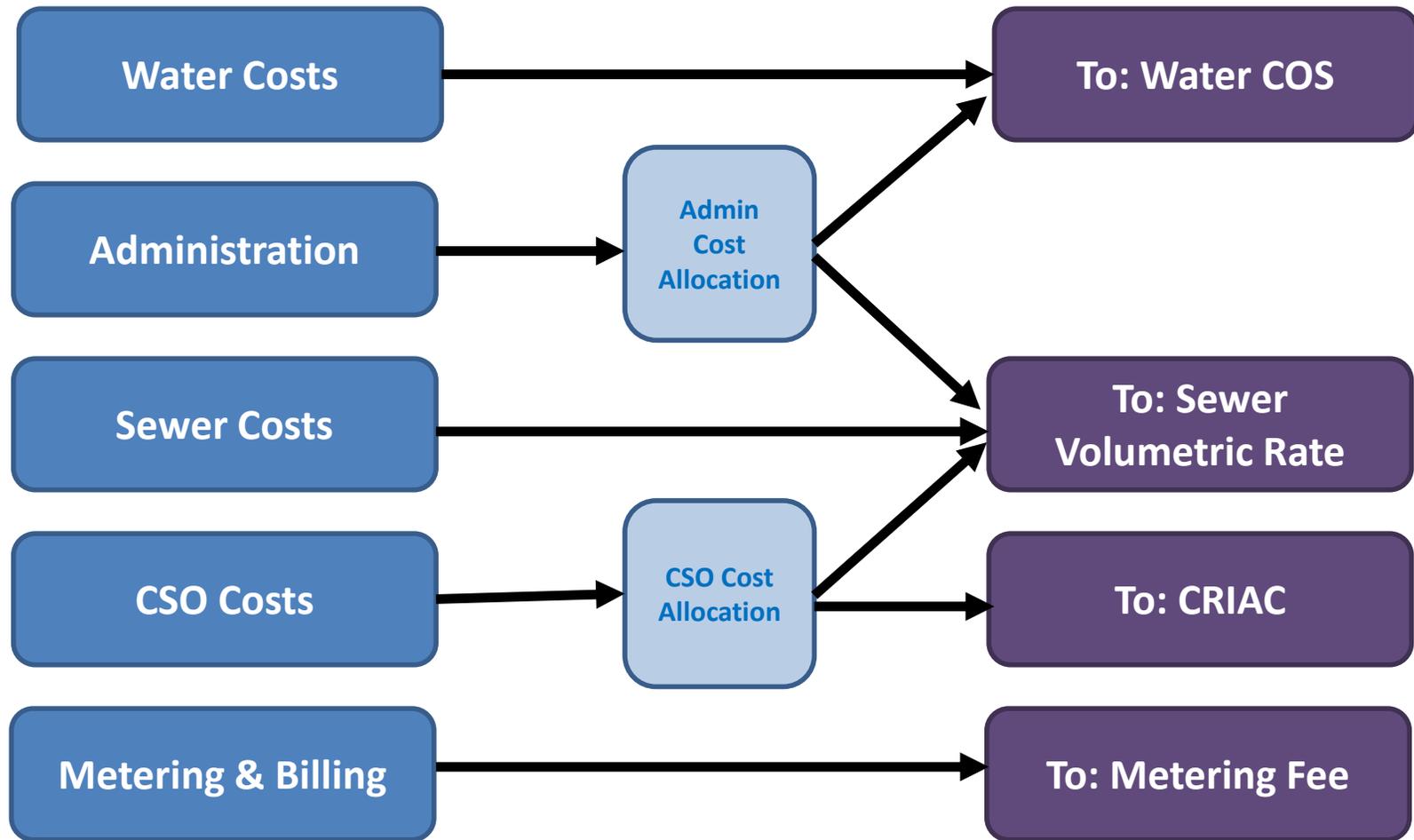
Step 1: Determine Revenue Requirements

Revenue requirements are the annual cash needs of the utility

- **Operations & Maintenance Costs**
 - » Personnel
 - » Contractual Services
 - » Water Purchases
 - » Chemicals and Supplies
 - » Energy and Fuel
 - » Equipment
 - » Biosolids Remediation
 - » Other operating costs
- **Capital Costs**
 - » Existing Debt Service from Outstanding Bonds
 - Long term indebtedness of about \$3.5 billion in FY 2019
 - » New Debt Service from Additional Bonds
 - Issuance of new bonds over the financial planning horizon
 - » Cash Funded Capital
 - Paygo and other cash funded capital covers ongoing investments in equipment, and water main replacement [12](#)

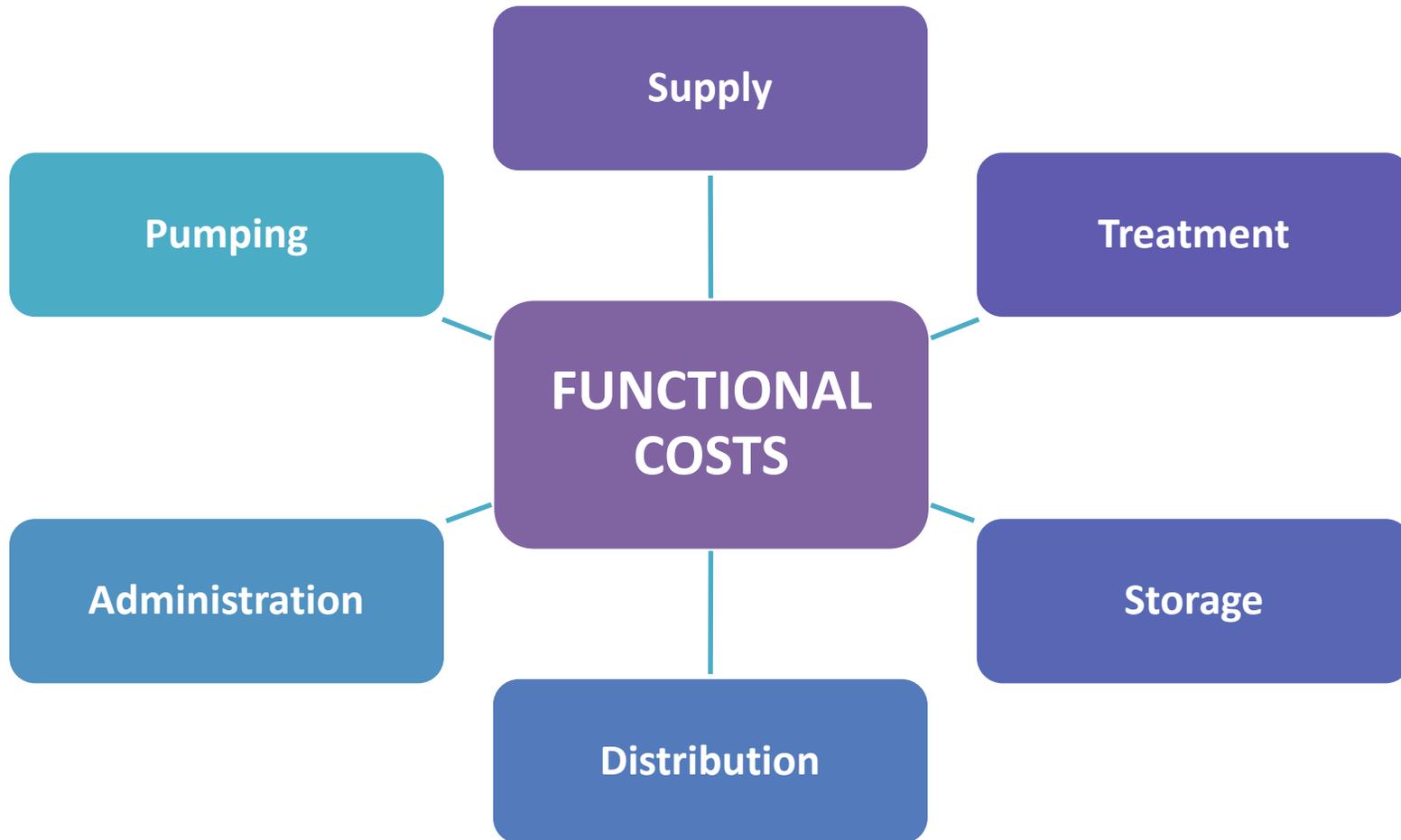
Step 2: Allocate Revenue Requirements to Utilities

COS Allocations are dependent on the utility's rate structure



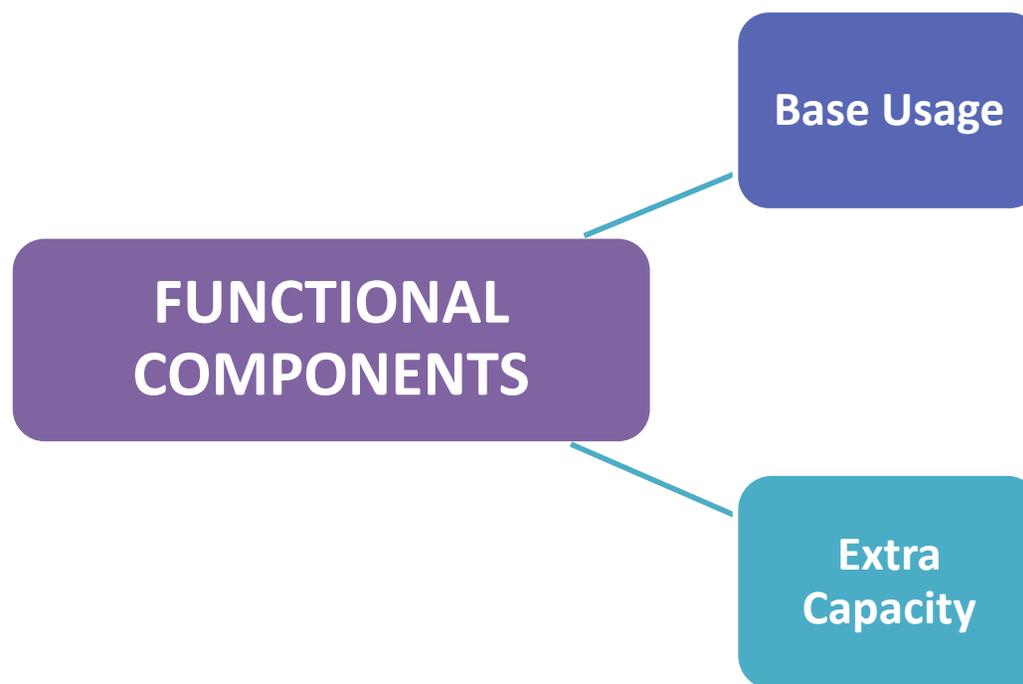
Step 3: Allocate Water Revenue Requirements to Functional Components

Water Cost of Service allocates costs to each utility function



Step 4: Allocate Functional Components to Cost Components

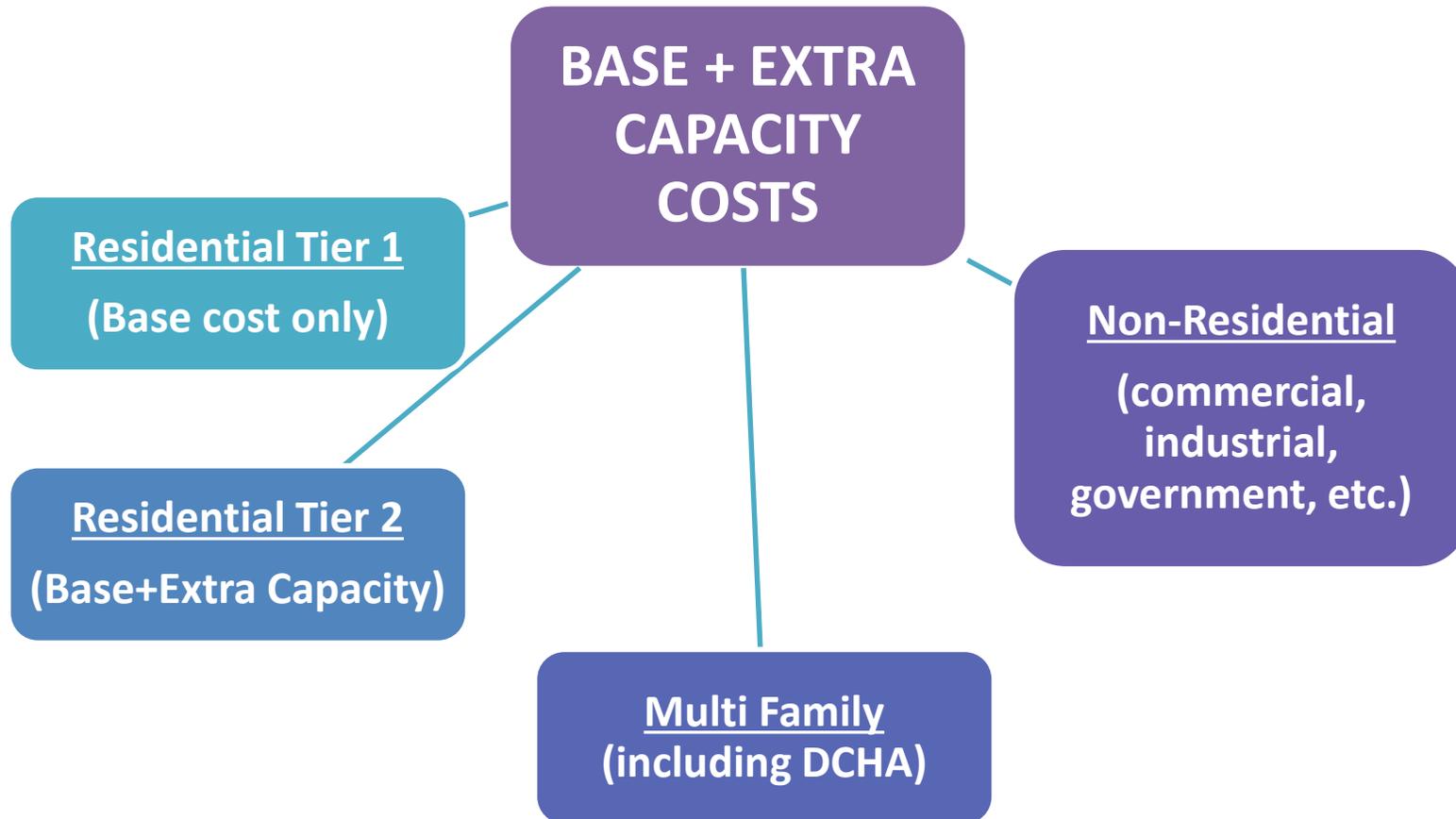
Function costs are split between base and extra capacity usage



- Base usage reflects average day water use
- Extra capacity usage reflects peak usage

Step 5: Calculate New Water Rates

Each customer class is assigned a portion of base and extra capacity costs resulting from their class peaking characteristics



Next Steps

Cost of Service Study Timeline



- Present cost of service methodology - November 19, 2019
- Finalize Operating Budget and CIP, present COS rate recommendations to Board Committees – January 2020
- Authorize publication of rates for public comment – March 2020

THANK YOU

MSRB REGISTERED MUNICIPAL ADVISOR: Raftelis is a Registered Municipal Advisor with the MSRB and SEC under the Dodd-Frank Act and is fully qualified and capable of providing advice related to all aspects of utility financial and capital planning, including the size, timing, and terms of future debt issues. Any opinion, information, or recommendation included in this presentation, related to the size, timing, and terms of a future debt issue may be relied upon only for its intended purpose. This information is not intended as a recommendation to undertake a specific course of action related to the issuance of debt, or to indicate that a particular set of assumptions for the size, timing and terms of issuing debt will be available at the time debt is actually issued.



RAFTELIS



Attachment C

ARCADIS | Design & Consultancy
for natural and
built assets

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

INDEPENDENT REVIEW OF RATE STRUCTURE AND CUSTOMER ASSISTANCE PROGRAMS

November 19, 2019

AGENDA

Scope of Services

Benchmarking

Review of Rates and Rate Structure

Customer Assistance Programs

Conclusions

Arcadis Qualifications



Independence:

Independence is a key aspect of this Review.

- Arcadis has not assisted DC Water in recent years with the development of the current water and wastewater rates and charges, and customer assistance programs.
- The Review was approached with an open mind and Arcadis seeks to offer DC Water professional considerations to improve its rates and customer assistance programs.

Arcadis Expertise:

Arcadis is a leading utilities engineering and consulting firm both in the United States and across the globe.

- Our team consists of approximately 27,000 worldwide and 5,000 U.S. employees.
- Key staff disciplines include engineering, science, planning, architecture, finance, management consulting, and other areas to help our clients solve their most challenging environmental, infrastructure, and business issues.
- Arcadis' Business Advisory unit includes our Financial Advisory Services team, which focuses on water, wastewater, and stormwater industry cost of service, rates and charges, and other financial and management issues faced by utilities such as DC Water.
- Arcadis has performed financial and rate reviews for clients across the U.S., which provides us with unique perspective on industry trends and best practices in the area of rates and charges.

15 November 2019

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Scope of Services



1 Benchmarking

- Initial Screening
- Selection of Eight Benchmark Utilities
- Focus on Rates and Customer Assistance Programs

2 Review of Rates and Rate Structure

- Customer Classes
- Clean Rivers Impervious Area Charge (CRIAC)
- Cost of Service Study Review
- Lifeline Rate Threshold
- Water System Replacement Fee
- Treatment Costs and CRIAC

3 Customer Assistance Programs (CAPs)

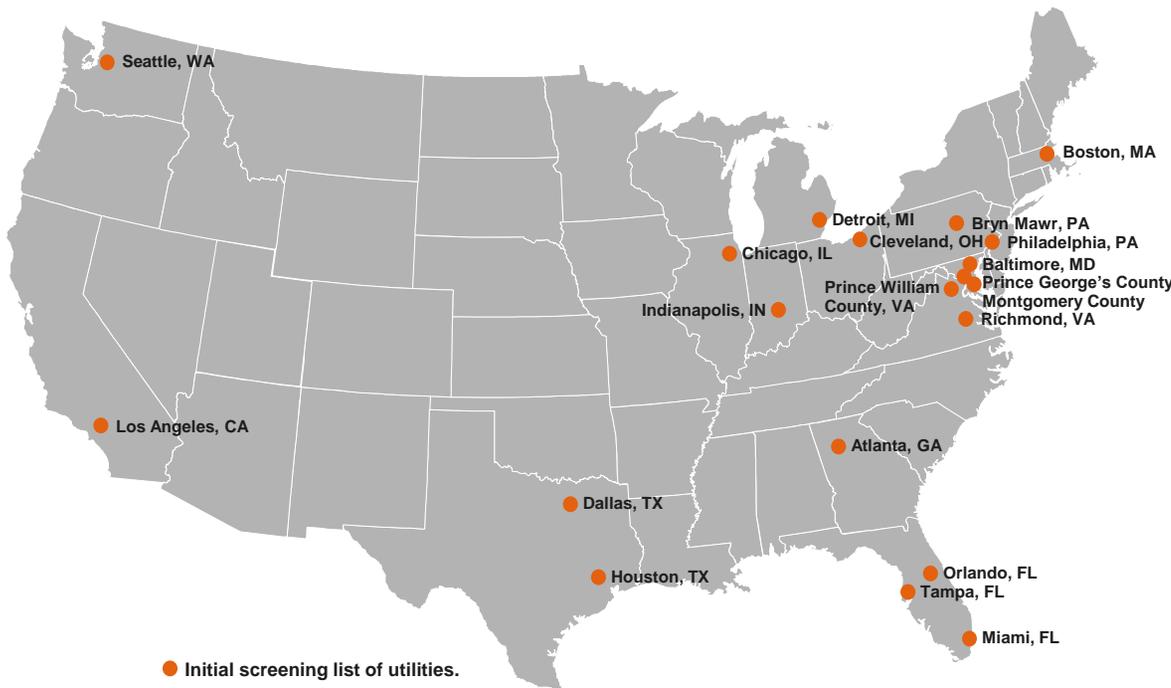
- Effectiveness of CAPs
- Discount Comparison
- Area Median Income as an Affordability Indicator
- CAP Thresholds
- CAP Discount Amounts

4 Conclusions

- Rates and Rate Structure
- Customer Assistance Programs

Independent Review of Rates, Rate Structures, and Customer Assistance Programs.

1 Benchmarking



Selected Benchmark Utilities ¹	Population Served	Rate Review	CAP Review
Atlanta – City of Atlanta Department of Watershed Management	650,000	✓	✓
Baltimore – Baltimore City Department of Public Works	1,600,000	✓	✓
Cleveland – Cleveland Division of Water and North East Ohio Regional Sewer District	1,262,955	✓	✓
Dallas – Dallas Water Utility	1,253,000	✓	✓
Indianapolis – Citizens Energy Group (CEG)	872,680	✓	✓
Philadelphia – Philadelphia Water Department	1,600,000	✓	✓
Prince George's and Montgomery Counties, MD – Washington Suburban Sanitary Commission	1,800,000	✓	✓
Seattle – Seattle Public Utilities	1,400,000	✓	✓
Los Angeles – Los Angeles Department of Water and Power	3,855,879	✗	✓

DC Water – Population served of 617,996

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Screening factors included annual revenue; net O&M; bond ratings; consent decree; impervious area charge; household income and other factors

1 Benchmarking



STATEMENT OF INTEREST:

4 Ccf Lifeline Rate

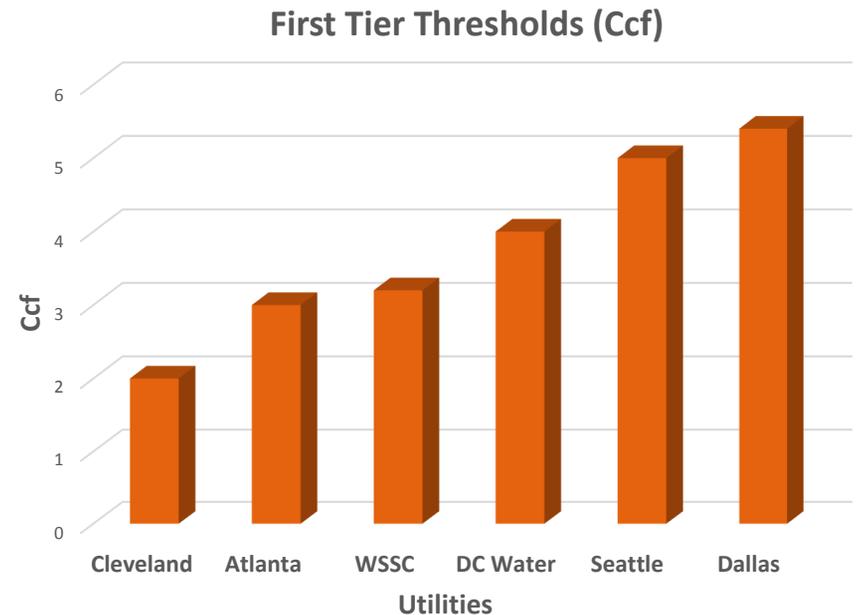
FINDINGS:

DC Water's lifeline rates include the first 4 Ccf of monthly usage.

- Three of the eight benchmark utilities do not have tier rates for water. They charge the same for all usage.
- The remaining five utilities have tiered water rates.

CONCLUSION:

DC Water's monthly first-tier water rate threshold of 4 Ccf is consistent with the benchmark utilities.



Baltimore and Indianapolis do not use tiers; Philadelphia's first tier is 20 Ccf.

1 Benchmarking



STATEMENT OF INTEREST:

Customer Classes

FINDINGS:

DC Water has three customer classes; Residential, Non-Residential, and Multi-Family.

- Three benchmark utilities (Baltimore, Cleveland, WSSC) do not use separate customer classes.
- The most common customer classes are:
 - Residential
 - Non-Residential (Commercial, Industrial)
- One benchmark utility (Citizens Energy Group) includes Multi-Family.

CONCLUSION:

The Residential, Non-Residential, and Multi-Family classes are consistent with classes used by the benchmark utilities.

Utility	Customer Classes
City of Atlanta Department of Watershed Management	Domestic
	Commercial
	Industrial
Baltimore City Department of Public Works	No Classes
Cleveland Water and North East Ohio Regional Sewer District	No Classes
Dallas Water Utilities	Residential
	General Services
	Optional General Services
	Untreated
Citizens Energy Group	Residential - Single Family
	Interruptible Raw Water Service
	Commercial
	Fire Protection
	Industrial
	Irrigation
	Residential - Multi-Family
Sale for Resale	
Philadelphia Department of Water	Residential
	Non-Residential
Washington Suburban Sanitary Commission	No Classes
Seattle Public Utilities	Residential
	Public and Private Fire
	Commercial (Business and Key Accounts)

Bold = Classes common with DC Water

1

Benchmarking



STATEMENT OF INTEREST:

ERU as a basis for CRIAC

FINDINGS:

DC Water uses the Equivalent Residential Unit (ERU) approach for billing the Clean Rivers Impervious Area Charge. An ERU is defined as 1,000 square feet of impervious area.

- Each benchmark utility that employs an impervious area-based charge did so on the basis of ERU.
- The ERU is typically the average or median impervious area of a single-family residential parcel.

CONCLUSION:

The use by DC Water of Equivalent Residential Unit as the basis for recovering Clean Rivers related costs is consistent with the method used by the benchmark utilities.

1 Benchmarking



STATEMENT OF INTEREST:

CRIAC and Clean Rivers

FINDINGS:

DC Water uses the CRIAC to recover costs associated with its consent decree program.

- All of the benchmark utilities have a program to comply with consent decrees or consent agreements.
- Six of the eight benchmark utilities fund their program through regular rates.
- Atlanta uses a 1% sales tax to fund a portion of their program. This approach passes cost to beneficiaries of the Consent Decree that are not customers.
- Citizens Energy Group (Indianapolis) has an Environmental Compliance rate rider to adjust rates for Clean Water Act regulatory compliance costs. It has currently chosen not to utilize this rider.
- Baltimore and WSSC both have infrastructure-related fixed fees charged by meter size.

CONCLUSION:

DC Water's current method for recovering most costs related to the Clean Rivers program is appropriate.

1 Benchmarking



STATEMENT OF INTEREST:

Customer Assistance Programs and CRIAC Non-Profit Relief

FINDINGS:

DC Water has three bill discount programs (CAP, CAP2, and CAP3), a temporary assistance program (SPLASH), a lifeline water rate, offers flexible payment terms, and offers a CRIAC nonprofit relief program.

- Bill discount programs are the most common type of program offered.
- Use of a defined income level, or Federal Poverty Level, is the most common method for determining eligibility for bill discount programs.
- The second most common customer assistance program is temporary assistance.

CONCLUSION:

Bill discount and temporary assistance programs are consistent with those used by benchmark utilities.

DC Water provides assistance to higher income levels via CAP3 program.

Comparable Utilities with Customer Assistance Programs						
City or County	Name of Utility	Program Type				
		Bill Discount	Temporary Assistance	Water Efficiency	Flexible Terms	Lifeline Rates
District of Columbia	DC Water	*	*		*	*
Atlanta	City of Atlanta Department of Watershed Management	*	*	*		
Baltimore	Baltimore City	*			*	
Cleveland	Cleveland Division of Water	*				
Dallas	Dallas Water Utility		*	*		
Indianapolis	Citizens (CEG)		*		*	
Los Angeles	Los Angeles Department of Water & Power	*	*		*	*
Philadelphia	Philadelphia Water Department	*	*	*	*	
Prince George's and Montgomery Counties, MD	Washington Suburban Sanitary Commission	*	*		*	
Seattle	Seattle Public Utilities	*	*			

2

Rate Review



STATEMENT OF INTEREST:

Customer Classes

FINDINGS:

DC Water has three Customer Classes; Residential, Non-Residential, and Multi-Family.

- Institutional customers such as hospitals, schools, or non-profit businesses would tend to exhibit similar service requirements to Non-Residential customers.
- For water and wastewater rate development, customers are categorized into classes that have similar service characteristics.
- The benchmarking study did not find any specific customer class designated as “Institutional.”

CONCLUSION:

Based on Arcadis’ experience, DC Water’s customer classes are appropriate for an urban type community such as the District of Columbia.

Evaluate Institutional demand patterns and compare to other Non-Residential customer types before creating a new customer class.

2

Rate Review



STATEMENT OF INTEREST:

Review the distribution of charges for the CRIAC.

FINDINGS:

DC Water uses the CRIAC to recover costs associated with the Consent Decree program.

- Approximately 26.7% of the ERUs are Residential, 13.7% are Multi-Family (including DC Housing Authority), and 59.6% are Non-Residential
- The DC Water CRIAC model was not reviewed. This may be done in conjunction with an ERU review at a later point.
- Fly over to delineate parcels was conducted in 2014 and implemented in 2016. This did not include a re-assessment of the ERU basis of 1,000 sq. ft.

CONCLUSION:

Given redevelopment in the District, continue to conduct parcel analysis on a regular basis to maintain an up to date and accurate ERU basis.

Confirm the 1,000 sq. ft. basis for ERUs is still valid during next parcel analysis.

2

Rate Review



STATEMENT OF INTEREST:

Cost of Service Study

CONSIDERATIONS:

The following are items for DC Water's consideration in its next cost of service study:

- Fire Protection – A separate cost of service analysis has been performed for fire protection. Consider implementation of charge for private fire customers.
- Metering Fee – Allocate a portion of Administration O&M and debt service coverage revenue requirements to meter functional component
- Water System Replacement Fee (WSRF) – Set initially in 2016 for 10 years. Re-evaluate toward anniversary to understand change and potential impact to rate structure.
- Extra-Capacity Demands – Historical cost of service analysis using peak day and peak hour factors was conducted. Consider updating cost of service analysis with current peak day and hour demands per industry practice.

CONCLUSION:

DC Water's cost of service study is generally consistent with industry practice.

Consider the above items to enhance the alignment of rates and charges to cost of service.

Update Metering Fee to include a portion of Admin. O&M and debt service coverage.

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2

Rate Review

STATEMENT OF INTEREST:

4 Ccf Lifeline Rate

FINDINGS:

DC Water incorporates a lifeline rate for the first 4 Ccf of monthly water usage.

- Given typical indoor water usage (50 gallons per person per day) and average household size for the District (2.18 persons), 4 Ccf of water is consistent with average indoor water use.
- Based on review of DC Water billing data, 50% of Residential customers use 4 Ccf or less a month.
- Data suggests 4 Ccf is consistent with the first tier of water usage for the benchmark utilities.
- CAP program provides the first 4 Ccf of monthly water usage at no charge.

CONCLUSION:

The use of 4 Ccf for the monthly water lifeline rate usage threshold is appropriate.

2

Rate Review



STATEMENT OF INTEREST:

Metering Fee

FINDINGS:

DC Water has a Metering Fee that recovers the costs for installing, operating, and maintaining customer meters.

- DC Water has other customer-related fixed costs for customer service, billing, or service lines.
- Including other fixed costs in a fixed meter charge is common in the industry.

CONCLUSION:

Consider recovering additional fixed cost elements via Metering Fee.



2

Rate Review



STATEMENT OF INTEREST:

Water System Replacement Fee (WSRF)

FINDINGS:

DC Water maintains a WSRF that was established to recover the cost of renewal and replacement of 1.0% of the water system annually.

- Based on study conducted in 2016.
- Graduated by meter size and associated volume by size
- Approved at current level for 10-year period.

CONCLUSION:

Other utilities employ similar fixed charges by meter size.

As anniversary of 10-year approval approaches, conduct updated cost of service analysis to understand any change to WSRF and potential impact on water rate structure.

2

Rate Review



STATEMENT OF INTEREST:

CRIAC

FINDINGS:

The CRIAC recovers capital related costs associated with the Clean Rivers project.

- Clean Rivers project tunnels are designed to handle wet weather flows when it is determined that peak flows will exceed the treatment capacity of the Blue Plains treatment plant.
- The primary wastewater system assets and associated costs related to wet weather runoff from impervious areas are from the wastewater system tunnels, and not the treatment plant.

All wastewater systems recover costs related to collecting, conveying and treating I/I regardless of whether from combined or separate sanitary sewers.

CONCLUSION:

Continue to utilize the CRIAC to recover Clean Rivers project capital costs as is current practice.

It is common practice in the industry to recover system costs, including I/I costs, via wastewater rates and charges as is DC Water's current practice.

2

Rate Review

STATEMENT OF INTEREST:

Clean Rivers

FINDINGS:

DC Water currently allocates 7.1% of combined sewer overflow capital costs to suburban customers.

- The 7.1% suburban share was jointly developed between DC Water and suburban customers.
- The allocation is based on the difference in annual volume exceeding treatment capacity in an average year of rainfall with and without suburban customers as part of the system.

CONCLUSION:

The current approach used for the allocation provides an appropriate technical basis for the allocation.

Consider performing a system-wide wastewater cost of service assessment using WEF guidelines to better understand cost recovery between District and suburban customers.

3

Customer Assistance Programs



STATEMENT OF INTEREST:

CAP Effectiveness

FINDINGS:

DC Water has three customer assistance programs that provide bill discounts (CAP, CAP2, and CAP3).

- The water industry generally uses a threshold that combined water, sewer, and stormwater bills over 4.5% of Median Household Income (MHI) are unaffordable.
- DC Water uses State Median Income and Area Median Income (AMI), both similar to MHI, to identify eligibility in CAP programs.
- For customers eligible for participation in the CAPs, the resulting average bill amount, after program discounts, are less than 4.5% of income.

CONCLUSION:

DC Water's CAP programs are effective in providing affordable bills to average water use residential customers.

3

Customer Assistance Programs



STATEMENT OF INTEREST:

CAP Programs

FINDINGS:

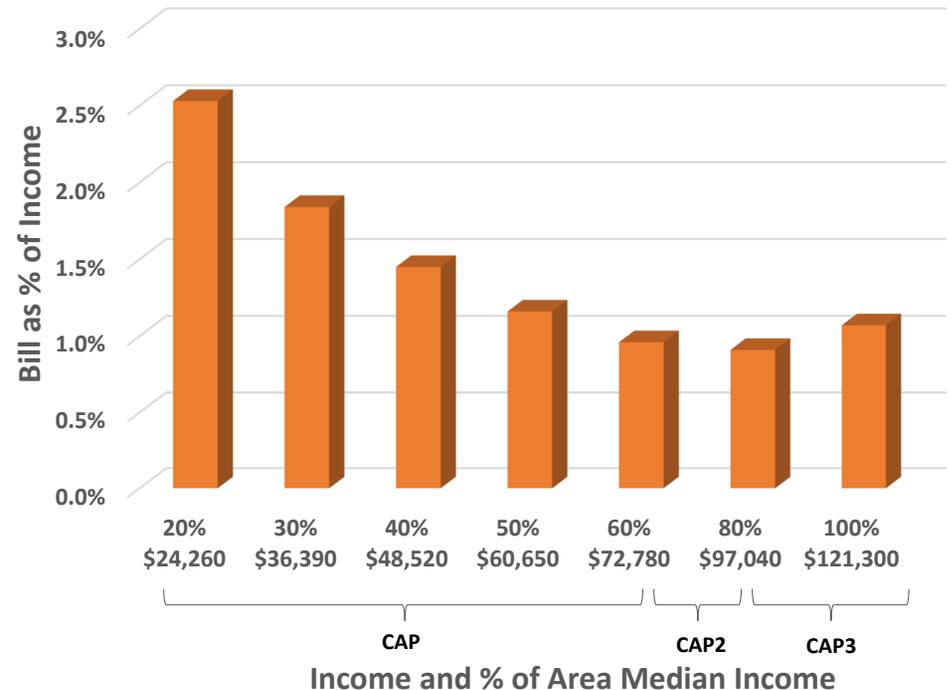
DC Water’s three customer assistance programs offer increasing discounts to customers as income declines.

- Discounted bills are generally consistent between CAP2 and CAP3.
- Lower-income customers eligible for CAP do have the highest bills as a percentage of income, after discounts, compared to other customers.

CONCLUSION:

Consider modifications to the CAP program to provide greater discounts to customers with income in the Lowest Quintile.

Annual Bill as a % of Income (with CAP Discount)



3

Customer Assistance Programs



STATEMENT OF INTEREST:

AMI for CAP2 and CAP3

FINDINGS:

DC Water's three customer assistance programs offer discounts to customers with income up to 100% of AMI (\$121,300).

- Several water industry associations have established criteria providing thresholds for “low-income.” Using these criteria, income levels associated with CAP3 would not qualify as low-income.
- Only 27 customers have participated in the CAP3 program.
- Lower-income customers eligible for CAP do have the highest bills as a percentage of income, after discounts, when compared to customers at higher income levels.

CONCLUSION:

Consider eliminating the CAP3 program and enhancing the CAP program for the Lowest Quintile income customers.

3

Customer Assistance Programs



STATEMENT OF INTEREST:

CAP Income Thresholds

FINDINGS:

DC Water uses SMI as the eligibility threshold to determine participation in CAP and AMI as the eligibility threshold to determine participation in CAP2 and CAP3.

- Use of AMI is a generally accepted approach; however, industry opponents of AMI argue that the metric has little relationship to poverty or other measures of economic need within a community.
- SMI is used by the Department of Energy and Environment's as criteria for participation in the Low Income Home Energy Assistance Program
- AMI is the basis used in District of Columbia Municipal Regulations to define Low Income customers.

CONCLUSION:

Using a percentage of SMI and AMI as the basis to determine CAP eligibility is a reasonable method for determining participation in customer assistance programs.

3

Customer Assistance Programs



STATEMENT OF INTEREST:

CAP Discounts

FINDINGS:

DC Water has three customer assistance programs that provide Bill Discounts (CAP, CAP2, and CAP3).

- The CAP program offers a 100% discount on the first 4 Ccf of water and sewer service, the PILOT and ROW fees, 100% of the WSRF, and 50% of the CRIAC.
- The CAP2 offers program offers a 100% discount on the first 3 Ccf of water and sewer service and 50% of the CRIAC.
- The CAP3 offers program offers a 75% discount of the CRIAC.
- The benchmark utilities determine discount amounts in a variety of ways, including bill percentage discount, flat monthly dollar discount, and discounts based on a percentage of a customer's income.

CONCLUSION:

Consider alternative methods to determining the bill discount amounts. The alternatives could provide a simplified approach to customer discount amounts.

4

Conclusions Summary



Rates and Rate Structure

- The current customer classes are appropriate and consistently seen in the industry.
- The 4 Ccf monthly water lifeline threshold is appropriate and consistent with benchmarked utilities.
- The cost of service study is generally consistent with industry standards for rate making. Consider identified items to enhance alignment between rates and cost of service.
- The current Metering Fee could be expanded to recover a greater amount of fixed operating and capital costs.
- As 10-year anniversary approaches, update WSRF cost of service to understand change and potential impact to water rate structure.
- Use of the CRIAC to recover consent decree-related capital costs is appropriate.
- Use of ERU as the basis for recovering the CRIAC is appropriate.
- Given redevelopment in the District, continue to conduct parcel analysis on a regular basis. The analysis should include an evaluation of the appropriateness of 1,000 sq. ft. as the basis for the ERU for residential parcels.
- The current cost elements recovered via the CRIAC are appropriate and should not include wastewater treatment costs.
- Recover system costs, including I/I costs, via wastewater rates and charges as is DC Water's current practice.
- The approach used to determine the suburban cost allocation for Clean Rivers (7.1%) provides a technical basis for allocating these costs.

4 Conclusions Summary



Customer Assistance Programs

- DC Water's customer assistance programs are effective in providing affordable bills to average water use customers.
- Due to limited participation and a higher income level associated with the CAP3 program, consideration could be given to eliminating this program.
- Customers at the lowest quintile of income (lowest 20%) accrue bills at a higher proportion of their income. Consider CAP program adjustments to provide a higher discount to these customers.
- Use of State Median Income and Area Median Income to establish CAP eligibility is appropriate.
- The three CAP programs provide bill discounts by reducing different elements of the bill. Alternative methods to determine CAP reductions, such as flat bill discounts or percent of bill discounts, could be considered.
- The lifeline rate provides a discount for the first 4 Ccf of water use. The CAP program provides a 100% discount for this same level of water use. As such, the need for the lifeline rate could be reevaluated.

Questions and Discussion



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Attachment D

FY 2020 Proposed RRC Committee Workplan			
Objective/Activities/Task	Date of Activity	Completed	Responsible Department
1. Propose and Establish Retail Rates for FY 2021 & FY 2022			
a. Present FY 21 & FY 22 Budget to Board	January 2, 2020		EVP F&P
b. Present FY 21 & FY 22 Proposed Rates, Charges & Fees to RRC	January 28, 2020		Rates and Revenue
c. RRC recommendation on Proposed FY 21 & FY 22 Rates, etc.	February 25, 2020		Rates and Revenue
d. Board approves Notice of Proposed Rulemaking (NOPR) for Proposed FY 21 & FY 22 Rates, etc.	March 5, 2020		Legal Affairs
e. Publish NOPR in D.C. Register for Proposed Rates, etc.	March 20, 2020		
f. Outreach and Public Comment Period	March 20 – June 13, 2020		Marketing & Comm.
g. Public Hearing	June 10, 2020		Board of Directors
h. Public Hearing Record Closes	June 13, 2020		Board Secretary
i. Present final FY 21 & FY 22 Rates, etc. to RRC for recommendation to Board	June 23, 2020		Rates and Revenue
j. Board approves Notice of Final Rulemaking (NOFR) for FY 21 & FY 22 Rates, Charges & Fees	July 2, 2020		
k. Publish NOFR in D.C. Register for Amended Rates, etc.	July 17, 2020		Legal Affairs
l. Amended Rates, etc. Go-Live	October 1, 2020 (FY 2021) October 1, 2021 (FY 2022)		Rates and Revenue
2. 2020 Cost of Service Study (COS) for Water, Sewer and CRIAC			
a. Present COS to RRC	November 19, 2019	√	Rates and Revenue
b. Present final COS to Board	December 5, 2019		
3. Review of Rate Structure, FY 2021 Proposed Rates and Customer Assistance Programs (CAP)			
a. Present to Review of Rate Structure, FY 2021 Proposed Rates, etc. and Customer Assistance Programs (CAP) to RRC	November 19, 2019	√	Rates and Revenue
b. Present final Review of Rate Structure, FY 2021 Proposed Rates and CAP to Board	December 5, 2019		

Attachment D

FY 2020 Proposed RRC Committee Workplan

Objective/Activities/Task	Date of Activity	Completed	Responsible Department
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4. Amendment to Miscellaneous Fees and Charges			
a. Present COS Update and Recommendation on Proposed Amendment to Miscellaneous Fees & Charges to RRC	October 22, 2019	√	Rates & Revenue
b. Board Approval of Notice of Proposed Rulemaking (NOPR) to amend Miscellaneous Fees & Charges	November 7, 2019	√	
c. Publish NOPR in D.C. Register	November 22, 2019		Legal Affairs
d. Public Comment Period	November 23 – December 23, 2019		Board Secretary
e. RRC Final Recommendation to Approve Amendment for Miscellaneous Fees & Charges	January 28, 2020		Rates & Revenue
f. Board Approval of Notice of Final Rulemaking (NOFR)	February 6, 2020		
g. Publish NOFR in D.C. Register	February 21, 2020		Legal Affairs
h. Miscellaneous Fees & Charges Go-Live	March 2, 2020		Rates and Revenue

5. CAP2 Outreach Plan Update			
a. CAP2 Outreach Plan Update	Monthly, as needed		Office of Marketing and Communications (OMAC)

6. Delinquent Accounts			
a. Soldiers Home Negotiations	Monthly, as needed		Legal Affairs

7. Rate Stabilization Fund			
a. Rate Stabilization Fund	Monthly, as needed		Rates & Revenue

* Dates subject to change



Attachment E

**D.C. WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS
SPECIAL RETAIL WATER & SEWER RATES
COMMITTEE MEETING**

**Tuesday, January 28, 2020; 9:30 a.m.
AGENDA**

Call to Order	Committee Chairman
Monthly Updates	Chief Financial Officer
Committee Workplan	Chief Financial Officer
Agenda for February 25, 2020 Committee Meeting	Committee Chairman
Other Business	Chief Financial Officer
Adjournment	

*Detailed agenda can be found on DC Water's website at www.dewater.com/about/board_agendas.cfm