



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
227^h MEETING OF THE BOARD OF DIRECTORS
Thursday, January 5, 2017
9:30 a.m.
5000 Overlook Avenue, SW
Room 407**

- I. Call to Order (Chairman Matthew Brown)**
- II. Roll Call (Linda Manley, Board Secretary)**
- III. [Approval of December 1, 2016 Minutes](#)**
- IV. Chairman's Overview**
- V. Committee Reports**
 - [1. Finance and Budget Committee \(Timothy Firestine\)](#)
 - [2. Environmental Quality and Sewerage Services Committee \(Chairman Brown\)](#)
 - [3. Water Quality and Water Services Committee \(Rachna Butani\)](#)
- VI. [CEO/General Manager's Report \(CEO/General Manager George Hawkins\)](#)**
- VII. [Summary of Contracts \(FYI\)](#)**
- VIII. Consent Items (Joint Use)**
 - [1. Approval to Execute Final Form of Certain Documents, Authorizing the Sale and Setting Terms and Details of the Series 2017A and Series 2017B Bonds – Resolution No. 17-00 \(Recommended by Finance and Budget Committee 12/14/16\)](#)
 - [2. Approval to Execute Option Year One of Contract No. 15-PR-WWT-53B, PVS Technology – Resolution No. 17-01 \(Recommended by the Environmental Quality and Sewerage Services Committee 12/15/16\)](#)
 - [3. Approval to Execute Option Year One of Contract No. 15-PR-WWT-53A, Carter & Carter Enterprises Inc.– Resolution No. 17-02 \(Recommended by Environmental Quality and Sewerage Services Committee 12/15/16\)](#)
 - [4. Approval to Execute Contract No. DCFA #458-WSA, World Water Works, Inc. – Resolution No. 17-03 \(Recommended by Environmental Quality and Sewerage Services Committee 12/15/16\)](#)
 - [5. Approval to Execute Supplemental Agreement No. 04 of Contract No. DCFA #429-WSA, Arcadis District of Columbia, PC - Resolution No. 17-04 \(Recommended by Environmental Quality and Sewerage Services Committee 12/15/16\)](#)

6. [Approval to Execute Supplemental Agreement No. 05 of Contract No. DCGA #441, PEER Consultants, PC - Resolution No. 17-05](#) (Recommended by Environmental Quality and Sewerage Services Committee 12/15/16)

IX. Consent Items (Non-Joint Use)

1. [Approval to Execute Contract No. 150210, Anchor Construction Corporation – Resolution No. 17-06](#) (Recommended by Environmental Quality and Sewerage Services Committee 12/15/16)
2. [Approval to Execute Contract No. DCFA #478-WSA, Rummel, Klepper & Kahl, LLP – Resolution No. 17- 07](#) (Recommended by Environmental Quality and Sewerage Services Committee 12/15/16)
3. [Approval to Execute Additional Funding to Option Year Four of Contract No. WAS-11-057-AA-SH, Business Promotion Consultants, Inc.\(Neptune Meter Parts\) – Resolution No. 17-08](#) (Recommended by Water Quality and Water Services Committee 12/15/16)
4. [Approval to Execute Option Year Four of Contract No. 12-070-AA-SC, Business Promotion Consultants, Inc. \(Meter Lids\) – Resolution No. 17-09](#) (Recommended by Water Quality and Water Services Committee 12/15/16)
5. [Approval to Execute Contract No. 17-PR-CCO-07, Mueller Systems– Resolution No, 17-10](#) (Recommended by Water Quality and Water Services Committee 12/15/16)

X. Executive Session – To discuss legal, confidential and privileged matters pursuant to Section 2-575(b) of the D.C. Official Code¹

XI. Adjournment

¹ 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)(1); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4); 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); 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.

Upcoming Committee Meetings (5000 Overlook Avenue SW (Blue Plains – 4th Floor)

- Governance Committee - Wednesday, January 11th @ 9:00 a.m.
- Human Resource and Labor Relations Committee/with Union Presidents– Wednesday, January 11th @ 11:00 a.m.
- Environmental Quality and Sewerage Services Committee – Thursday, January 19th @ 9:30 a.m.
- Water Quality and Water Services Committee – Thursday, January 19th @ 11:00 a.m.
- Audit Committee – Thursday, January 25th at 9:30 a.m.



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

Board of Directors

Finance and Budget Committee

Wednesday, December 14, 2016

11:30 a.m.

MEETING MINUTES

Committee Members (via conference call)

Timothy L. Firestine, Committee Chairperson
Matthew Brown, District of Columbia
Sara Motsch, Fairfax County

DC Water Staff

Mark Kim, Chief Financial Officer
George Hawkins, General Manager
Linda Manley, Board Secretary

Other Presenters and Guests

Ryan Callender, Bond Counsel, Squire Patton
Boggs

Call to Order

Chairperson Timothy L. Firestine called the meeting to order at 11:33 am.

November 2016 Financial Report

Mr. Mark Kim, CFO, reported that DC Water's operating revenues and expenses are on track for the period to date. Total revenues are at \$111.5 million or 19 percent, operating expenditures at \$73.6 million or 14.4 percent and capital disbursements at \$92.4 million or 18.2 percent of budget in the respective categories.

He noted that the higher than budgeted year-to-date capital disbursements were for the Clean Rivers project, however it is anticipated that they will come back in line with the budget later in the fiscal year.

Mr. Kim apprised the committee that the financial audit is currently in progress and management expects an opinion from KPMG by December 20, 2016.

FY 2017 Plan of Finance

Mr. Kim reported that management is preparing for the upcoming bond offering of \$300 million with targeted sale date of late January/early February 2017. This bond deal will comprise of \$200 million in traditional debt and \$100 million in green bonds, to finance a portion of the Clean Rivers project. The committee members had a discussion and reviewed the financing terms and documentations, which include the Board Resolution, Preliminary Offering Statement, Twenty-Second Supplemental Indenture and the Bond Purchase Agreement.

Mr. Kim reported that the fixed income markets are extremely volatile and have been since the Presidential election, with increases in overall interest rates up to 100 basis points. The market conditions are being monitored by staff and the finance team expects continued volatility through the Fed's next FOMC meeting in January 2017. The sale will be dependent on market conditions.

Chairperson Firestine asked whether management has considered the possibility of financing the entire deal with a green bond. Mr. Kim replied that it has, but at the current time the Authority has only designated the DC Clean Rivers Project to be a "green" project. In order to extend the designation to other capital projects, it would likely want to hire an independent sustainability consultant to establish the appropriate environmental outcomes and metrics. Mr. Kim stated that the Authority will continue to monitor the green bond market for additional opportunities and noted that both Moody's and S&P have entered the market by offering issuers green bond ratings. The Authority is presently in conversations with both credit rating agencies regarding our proposed green bond and will keep the Committee apprised.

Action Items

The Committee reviewed and recommended the 2017A bond resolution and related documents for the Board's consideration:

1. Board Resolution
2. Preliminary Offering Statement
3. Twenty-Second Supplemental Indenture
4. Bond Purchase Agreement

Agenda for January Committee Meeting

Mr. Kim briefly reviewed the draft agenda for the January committee meeting.

Adjournment

Hearing no further business, Chairperson Firestine adjourned the meeting at 11:43 am.

FOLLOW-UP ITEM:

Provide explanation regarding the nature of the late revenues received in December and if it was from FEMS for the fire hydrants or for something else. **(Chairman Brown)** STATUS: completed immediately following committee meeting via email on 12/14/16.



**District of Columbia
Water and Sewer Authority**

Board of Directors

**Environmental Quality and Sewerage
Services Committee Meeting**

Thursday, December 15, 2016

9:30 a.m.

MEETING MINUTES

Committee Members

Mathew T. Brown, Board Chairman
Howard Gibbs
Adam Ortiz

DC Water Staff Present

Biju George, Chief Operating Officer
Len Benson, Chief Engineer
Linda Manley, Secretary to the Board
Henderson L. Brown, General Counsel

I. Call to Order

Mr. Brown called the meeting to order at 9:37 A.M.

II. AWTP STATUS UPDATES

1. BPAWTP Performance

Mr. Aklile Tesfaye, Assistant General Manager for Wastewater Treatment reported on the performance of the Blue Plains Advanced Wastewater Treatment Plant (AWTP) (by exception). Mr. Tesfaye stated that all performance parameters were excellent and all permit requirements were met.

The Committee inquired as to why Ammonia permit levels varied throughout the year. Mr. Tesfaye replied that permit limits reflect the varying impact of Ammonia Nitrogen on water quality through different season cycles (i.e., summer versus winter months). He noted, however, that the actual discharge limits were consistently and significantly below permit limits throughout the year.

III. DC CLEAN RIVERS GREEN INFRASTRUCTURE CONTRACTS

Mr. Carlton Ray, Director, DC Clean Rivers (DCCR) Project, gave an update on the Rock Creek Project A Design-Build and Construction Management Services (by exception). Mr. Ray asked if there were questions from the Committee on material outlined in the prepared presentation.

The Committee inquired as to how DC Water selected the specific location of the RC-A facilities. Mr. Ray responded by stating it is the desire of DC Water to minimize, to the extent possible, the

relocation of buried utilities and that this factored in the selection of the locations. The Committee also inquired if DC Water would be responsible for maintaining the constructed Green Infrastructure (GI). Mr. Ray responded in the affirmative.

The Committee further inquired as to what percentage of the constructed GI will be on private versus public right-of-way. Mr. Ray replied that currently, all the GI work is being designed for construction on public right-of-ways.

IV. ACTION ITEMS

JOINT USE

1. Contract No. 15-PR-WWT-53A, Carter & Carter Enterprises Inc.
2. Contract No. 15-PR-WWT-53B, PVS Technology.
3. Contract No. DCFA #458-WSA, World Water Works, Inc.
4. Contract No. DCFA #429-WSA, Arcadis District of Columbia, PC.
5. Contract No. DCFA #441-WSA, PEER Consultants, PC.

Mr. John Bosley, Chief of Procurement, DC Water, presented action items 1 and 2. Mr. Len Benson, Chief Engineer, DC Water presented Action Items 3 through 5.

Action Item 1: Request to execute contract to supply and deliver liquid ferric chloride to DC Water's Blue Plains Advanced Wastewater Treatment Facility. Due to its critical importance and to ensure supply security, a contract was awarded to two companies, one of which is Carter & Carter Enterprises Inc.

Action Item 2: Request to execute contract to supply and deliver liquid ferric chloride to DC Water's Blue Plains Advanced Wastewater Treatment Facility. Due to its critical importance and to ensure supply security, a contract was awarded to two companies, one of which is PVS Technology.

Action Item 3: Request to execute an architectural and engineering services contract to provide professional services associated with commissioning, harvesting and supplying annamox seed sludge and for operational support for the Filtrate Treatment Facility (FTF) at DC Water Blue Plains Advanced Wastewater Treatment Plant to treat high-ammonia reject water from the dewatering of digested biosolids. This is a sole-source contract and as such, there are no subcontractors providing support services.

The Committee inquired as to why the contract was sole-sourced. Mr. Benson and Mr. Tesfaye explained that the contractor was the exclusive provider of the DEMON® patented process in North America and therefore, no other companies were able to provide the services needed by DC Water.

Action Item 4: Request to execute a supplemental agreement to provide an extension of construction management services for the Biosolids Management Program to accommodate changes in the sequence and scope of construction. Changes include upgrades to the waste liquor return pump station, existing lime stabilization system enhancements, alterations to the odor control chemical feed system for compatibility with hydrochloric acid and for compatibility with foul air loading.

The Committee inquired if the requested modification will be the final modification and whether all the ongoing projects will be completed by June 2017. Mr. Benson responded in the affirmative.

Action Item 5: Request to execute a supplemental agreement to provide asset management, operations and engineering support to the Department of Wastewater Treatment.

The Committee inquired if this modification was partly the result of new assets being identified and added to DC Water's inventory. Mr. Benson responded in the affirmative. He stated that implementation of DC Water's Asset Management Plan (AMP) occurred after the original contract was awarded. The Committee also inquired if this work would be ongoing as more new assets are being identified and added to DC Water's inventory. Mr. Benson replied in the affirmative and added that the duration of this contract is until December 2019.

NON JOINT USE

1. Contract No. 150210, Anchor Construction Corporation.
2. Contract No. DCFA #478-WSA, Rummel, Klepper & Kahn, LLP

Mr. Len Benson, Chief Engineer, presented Action Items 1 and 2.

Action Item 1: Request to execute a design-build contract to provide final design and construction of Division RC-A-Rock Creek Project A Green Infrastructure (GI) in support of the DC Clean Rivers Project. This work is required by a Consent Decree.

Mr. Benson stated the designation of Anchor as a Certified Business Enterprise (CBE) is missing from the fact sheet and the correction will be included in the final fact sheet.

The Committee inquired if the proceeds from the recent Bond sales were being used to finance this project and whether the performance of the project will be monitored to ensure the requirements stipulated in the finance agreements are met. Mr. Benson and Mr. Ray replied that both of the non-joint use projects being recommended for action are financed via the Bond sale and that their performance will be monitored to ensure compliance with the requirements.

The Committee also inquired if Anchor is a CBE and who, other than Anchor, will perform the additional 45% of the CBE work. Mr. Benson responded that Anchor is a CBE and that as a CBE, it will utilize best efforts to meet or exceed the CBE objectives for the project by involving other CBE firms or self-performing additional portions of the work as final construction needs are identified. The Committee inquired as to how Anchor, a construction firm, will be conducting a design-build project. Mr. Benson and Mr. Ray responded that Anchor has partnered with two design firms and will be utilizing them for the design work. The Committee also inquired if the monitoring of these projects for fulfillment of requirements set in the Bond sale finance agreements will be a separate task. Mr. Benson responded that it will be a smaller, separate project that will be authorized by the General Manager.

Action Item 2: Request to execute an architectural and engineering services contract to provide onsite construction management of Division RC-A – Rock Creek Project A (GI) and Division PR-A1 – Potomac River Project A1 (GI) DC Clean Rivers Project during construction contracts. This work is required by a Consent Decree.

The Committee recommended all action items to the full Board.

V. OTHER BUSINESS/EMERGING ISSUES

None.

VI. ADJOURNMENT

Meeting adjourned at 10:27 a.m.

Follow-up Items

1. Chief Engineer: State in the fact sheet the designation of Anchor Construction as a Certified Business Enterprise (CBE).



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

**BOARD OF DIRECTORS
WATER QUALITY AND WATER SERVICES COMMITTEE**

**MEETING MINUTES
THURSDAY, DECEMBER 17, 2016**

Present Board Members

(By Conference Telephone Call))

Rachna Butani Bhatt
Howard Gibbs
Board Chairman Matthew Brown
Rev. Kendrick Curry

Present D.C. Water Staff

George Hawkins, General Manager
Charles Kiely, Assistant General Manager
for Customer Care and Operations
Linda Manley, Board Secretary

I. Call to Order

Committee Chair Rachna Butani called the meeting to order.

II. Water Quality Monitoring

A. Total Coliform Testing (TCR)

Charles Kiely provided an update on the Total Coliform Testing monitoring for November resulted in two positives at a construction site. This is a non-issue for November since the upstream and downstream samples since they came back negative. Overall the water quality monitoring for total coliform is fine. He stated that they started out with a tough month in December because they had four hits out of the 115 samples. Two were at a primary site at a grocery store approved by EPA and the downstream sample was related. Mr. Kiely stated that the distribution system is fine and all the sample results have been negative after the first positive they had. There is no issue today but the water quality technicians are analyzing that area to determine how this primary site will be treated in the future. There is nothing that suggests there will be another problem in December. Problems of this type do happen but it is usually related to a faucet or something else in the site. Mr. Kiely stated that if they decide that they want to drop the site, they must make a request for EPA approval of a new site.

B. Lead and Copper Rule

For the Lead and Copper Rule compliance sampling, Mr. Kiely reported that they have collected the required samples and they are being analyzed. They are at 3.4 parts per billion but they expect to be under 4 parts per billion when it is completed. The next several weeks will be a huge effort to ensure that all compliance reports are accurate and filed on or before January 10, 2017. Rev. Kendrick wanted to know what the numbers were over the last three to five years. Mr. Kiely replied that ten years ago, they were near the action level of 15 but they have been consistently going down. He stated that they do twice a year sampling voluntarily and have never asked to go back to the regulatory level of once a year. Samples over the last three years have been the lowest. This is a strong indicator that optimum conversion control on water treatment has been achieved. Lead is under control and has been over the last seven or eight years. Rev. Kendrick asked if D.C. Water had reached the bottom or if it could do better. Mr. Kiely stated that everyone would say that no lead is good lead. There is always a chance that something will flake off, show up in a sample and result in an elevated reading. He reported that with respect to the water treatment, the corrosion control, and the film they have built up over the system to prevent the lead from leaching into the drinking water, they are close to the bottom.

Mr. Gibbs asked about something he saw on the television about pharmaceuticals in the drinking water. They showed a guy holding up a sample of D.C. Water and listing the pharmaceuticals it contained. He asked what could be done. Mr. Kiely stated that they are aware of those reports and today they are dealing with the levels. He indicated that not long ago non-detect was at the zero level but with new technologies and testing and improved laboratories and equipment, trace elements are being reported. Mr. Kiely said that they will be talking about some of this at the Strategic Planning meeting because there is a planning initiative, an alternative treatment study that they have talked about with the Committee. There are different treatment options that can address this issue if it becomes more pronounced in the future. If you look at D.C. Water's water quality report, it lists the substances and chemicals found.

III. Fire Hydrant Upgrade Program

David Wall, Manager of Distribution, reported that out of 9,500 public fire hydrants, the number of out of service hydrants in the last month was down. They did see an increase in the defective from 34 last month to 41 this reporting period. There has also been a decrease in other out of service hydrants. Mr. Wall stated that they continue to focus on the hydrants that have been out of service for more than 120 days.

Ms. Butani Bhatt stated that this is the time of the year when it becomes hard to deal with out-of-service hydrants because of the need to focus on water main breaks. She asked Mr. Wall what he expected the numbers to go to. He indicated that he expects the numbers to be kept below 40, the low 30s, if possible. He doubts it will creep up to 50.

Mr. Gibbs asked if they were still replacing old hydrants with new ones. Mr. Wall stated that they are still replacing old ones. Mr. Gibbs requested a reporting at the next meeting of how many hydrants have been replaced on an annual basis. He thinks the number of older hydrants reported is keeping steady. Mr. Gibbs wants to know how many have been replaced and how many more still must be replaced before they complete the task. Mr. Wall agreed to supply that data for next month's meeting.

IV. Non-Joint Use Contracts

Ms. Butani Bhatt asked Mr. Kiely to brief the Committee on the contracts up for Board approval. Mr. Kiely stated that the first contract was for business promotion consultants related to the purchase of meter lids as part of the AMR Project. As part of the AMR technologies, the steel lids they use to use are being replaced because data cannot be transmitted through them. He reported that they use to use a composite concrete lid that was designed for the District. The contract is for the purchase of lids as part of the AMR Project. Chairman Brown asked for a justification of why they would not go out to bid this contract. Dan Bey, Procurement Department, stated that the vendor owns the mold for these lids, so it cannot be outsourced for competitive bidding. Mr. Gibbs asked about how much the lids cost. Mr. Kiely stated that they originally purchased over 100,000 concrete polymer lids as part of the original AMR project and they began to disintegrate after about three years. They received complaints about trips and falls. They are now targeting replacing 83,000 lids in 24 months and that is why the total aggregate sum is high. Mr. Kiely stated that they negotiated a 17 percent per unit reduction in cost.

Mr. Kiely stated that the second contract is to purchase 1 ½ and 2 inch meters under the AMR Replacement Project. D.C.'s standard design is a positive displacement (PD) meter. Most D.C. accounts have 1 inch and under meters, so they went out for a separate bid. The 1 ½ and 2 inch meters are in residential homes that have sprinkler systems or larger services. Not all manufacturers continue to manufacture PD meters that are 1 ½ and 2 inch.

Ms. Butani Bhatt asked if they usually place in the fact sheets what others bid for contracts. Mr. Bey said that it is usually included but they did not in this case. He stated that they can provide the information. Ms. Butani Bhatt said that she wanted to see this for all contracts and the other Committee members agreed. Mr. Kiely said that the information would be forwarded.

Rev. Kendrick asked that they also include the preference price reduction award which is a reduction of \$100,000 for the LSBE. Ms. Butani Bhatt stated that the actual amount is included when they are explaining why a certified business did not get the award. Rev. Kendrick indicated that the preference price reduction award would be helpful to know.

Mr. Kiely reported that the last fact sheet is with BPI and is related to parts. This contract is for the purchase price for parts for upgrading the six inch and larger meters. Because of the location, the meters are not easy to replace and often require bringing in the contractor for excavation, etc. Mr. Kiely stated that D. C. Water staff will gut the meters and then rebuild them. This contract will result in lower costs.

A Committee member requested that they provide the number of 1 ½ and 2 inch meters and 6 inch and larger meters. He wanted an idea of the value versus the number of units that need to be replaced. Mr. Kiely said that they would provide the counts.

Ms. Butani Bhatt asked for further questions or comments and there were none. The contracts were recommended for full Board approval. She then asked for a motion to go into Executive Session and it was so moved and seconded. Ms. Manley conducted a roll call vote and the motion was passed unanimously. The Committee went into Executive Session.

Upon reconvening the public meeting, Ms. Butani Bhatt adjourned the meeting.



CEO and GENERAL MANAGER'S REPORT

George S. Hawkins – January 2017

Table of Contents

Message from the CEO/GMI

Organizational Performance Dashboardi

Financial Highlights1

Financial Performance Summary 1

Revenues and Operating Expenses 2

Capital Spending..... 2

Operating Cash and Receivables 3

Investment Earnings..... 3

Investment Yield..... 4

Customer Care and Operations Highlights.....5

Customer Service 5

Fire Hydrants..... 6

Permit Processing..... 7

Low Income Assistance Program.....8

SPLASH Program..... 8

Customer Assistance Program(CAP) 8

Operational Highlights9

Drinking Water Quality..... 9

Waste Water Treatment 10

Water Distribution Operations..... 11

Water Balance 11

Sewer System Operations 12

Combined Sewer System..... 12

Human Resources 13

Electricity Usage Summary..... 14

Electricity Usage by Service Area 14

Safety 15

Vendor Payments 15

Interpretation of Charts A

Color Key

<p>Red</p> <p>Yellow</p> <p>Green</p> <p>Gray</p> <p><transparent></p>	<p>Did not meet Target</p> <p>Missed Target but within acceptable range</p> <p>Met/Exceeded Target</p> <p>Budget/Target Value</p> <p>Green/Yellow/Red based on comparison</p>
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Message from the CEO/GM

My greetings to the Board for our first meeting in 2017. I believe that building on a tremendously substantive and engaged Board Retreat held in late December, we are poised to build on the hard work and accomplishments that we jointly achieved in 2016. We are gearing up for a great year!

Retreat

The staff of DC Water is very grateful for the time and effort that Board members invested so near to the holiday season to participate in the Board Retreat held, as it has been for many years, at the US Post Office's Bolger Center in Potomac Maryland. On Thursday evening we sought to provide a clear if sobering view of our capital needs. Len Benson, our Chief Engineer, presented information based on our newly developed asset management program – which is delivering valuable information to target our existing capital funding to the projects that can respond to the most important risks (both in terms of likelihood and consequence). The good news is that we have diagnostic tools that are better than even a few years ago and setting the standard for the industry – and that we have suitable funding for most of the highest and high capital needs for Blue Plains and the linear water infrastructure. The sobering news is that we do not currently have funding for even the highest needs for the linear sewer infrastructure, and are not at the optimal long-term replacement level for any of the capital program areas. DC Water is not unlike almost all municipal water utilities in this regard. The “wild card” for the capital program is capital needs for the Washington Aqueduct, which has not engaged in suitable capital planning for years – and projects a major treatment upgrade need in the early 2020s.

Mark Kim, our Chief Financial Officer, highlighted the tremendous improvements we have made to our financial condition – particularly in comparison to the extraordinary capital funding needs we have shouldered over the last seven years. Mark also presented the sobering reality that to fund the additional needs for linear sewer assets would add several percentage points to the rate increases needed over the next ten years – adding to the already planned 5% increases each of the next 10 years. Our conclusion on Thursday evening was that we were going to come back the following day to focus on the two areas that must be developed before any new rate revenue is considered: a) how we maximize the productivity of the funds we already have; and b) how we can generate new revenues from non-ratepayer sources.

Friday morning was jam packed with presentations on how we are carefully stewarding the existing funds we generate and our plans to generate funds from new sources. We highlighted how we plan to modify the manner in which we report on our performance – to embrace new measures designed to measure our productivity. Sarah Neiderer, our Strategic Planning Officer highlighted how we will engage the Board on updating the Blue Horizon 2020 Strategic Plan and AGM Charles Kiely focused on how we are maximizing the efficiency and offering new services through our existing operations. Chief of Staff Mustafa Dozier explained how we are using a maturity model to measure the capabilities of our program offices – and explained how the Human Capital Management and Labor Departments have used the tool to restructure their office and improve their work. Finally, a panel of staff – led by Chief Operating Officer Biju George, Innovations Chief Sudhir Murthy, Chief Marketing Officer Alan Heymann and AGM Aklile Tesfaye, highlighted how rapidly new markets for non-ratepayer revenue are evolving – including maximizing existing resource capacity (mostly at Blue Plains), licensing intellectual

Message from the CEO/GM

property in joint ventures with other firms, developing Blue Drop to provide services to other utilities, and a host of exciting yet daunting potential international markets.

After a speedy lunch, the Board then hosted a first – a Board only meeting that lasted into the afternoon. I will be meeting with Chairman Brown and several Board members after the January Board meeting to discuss follow-up steps from the Retreat – which include issues pertaining to labor negotiations, affordability and oversight of the new revenue opportunities. In my view, this is precisely the outcome I hoped to gain from the Retreat – and hugely look forward to further engagement in the year ahead. I want to particularly thank Board Secretary Linda Manley for once again handling the logistics with her excellent assistant Alphonso Kilgore Stukes. Chief Operating Officer Biju George took the lead in developing the agenda with the Board Chair, ably assisted by Sarah Neiderer and Tera Fong. Most significantly, however, we are thankful for the time, wisdom and effort invested by our volunteer Board members. We honor and respect your commitment to this glorious enterprise.

Trump Transition

One of the greatest accomplishments of human culture – the peaceful transfer of power within the most powerful country in the World – is obviously about to occur in Washington, DC. Along with the throngs that will arrive for the inauguration will come thousands of new government officials and appointees. In preparation for this change, the Trump Transition team has been asking for assistance from subject matter experts on issues of national concern. One area that was highlighted by both parties in the campaign is the need for infrastructure investment. The Trump Transition has highlighted infrastructure as one of its priorities, and highlighted water infrastructure as a need within that context. I have agreed to be part of a small group of experts advising the Trump Transition on how to develop a water infrastructure program. As I am writing this update, I have finished submitting proposals to structure and fund a national lead-in-water program; and to support a public-to-public platform to help improve the update of technology in the water sector I have been calling Blue Wave. I have also written a summary of a program I call LIWAP – or a low income assistance program for water utility bills based on the existing LIHEAP program for heating assistance. In all of these areas, my ideas are founded on the hard-won experience we have gained at DC Water and the ground-breaking efforts that we have developed in concert with the Board. I have set aside my personal misgivings about the electoral results to seek to help an Administration that will be the governing entity for our country for at least the next four years. I will report how these efforts unfold in future GM Reports.

Audit

On December 20th, the Authority completed the independent audit of its FY16 financial statements and received an unmodified or "clean" audit opinion from KPMG. In addition, this is the first Audit with KPMG in which the Authority did not receive any findings in its Report on Internal Controls. Previously, the Authority had been cited by KPMG with 5 significant deficiencies in 2013; 3 significant deficiencies in 2014; and 1 significant deficiency in 2015.

Team FAB is very proud of its continuous improvement in strengthening internal controls and receiving no findings this year marks a significant accomplishment.

Message from the CEO/GM

AMR Replacement Program

Beginning in January 2017, DC Water will begin implementation of the Automated Meter Reading (AMR) Replacement Program. This program includes replacement of approximately 88,000 small diameter meters and MTUs that are at or nearing the end of their useful life. In December, NTP was issued for the installation vendor and webpage for the program was launched. Meter installations are scheduled to start in mid-January 2017 and full-production (5,000 replacements per month) is planned for March 2017.

External Affairs

Website: Session totals for the period of November 16 through December 15, 2015
Total Sessions: 74,970
New Sessions: 40,439

Government Relations

External Affairs continued to coordinate with Councilmember Cheh's office on the passage of the "Nonwoven Disposable Products Act of 2016". The Bill passed its second reading of the Council unanimously.

Press Releases

- Dec 1: [DC Water Expands Program That Provides Assistance to Low Income Customers](#)

Media Coverage:

A sampling of some of the most noteworthy Authority-related news clips during the month:

- [DC Water issues Environmental Impact Bond to fund green infrastructure](#)
(Civil Engineering / December 2016)
- [District identifies site for D.C. Water services, but multiplex near Nats Park faces more hurdles](#)
(Washington Business Journal / November 17, 2016)
- [Water main break leaves residents with sewage in basements, some without heat or hot water](#)
(WJLA-7 / November 23, 2016)
- ["Starving" bacteria to double energy extraction from sewage](#)
(New Atlas / November 26, 2016)
- [All Clogged Up: D.C. Wants To Regulate 'Flushable' Wet Wipes](#)
(WAMU / December 5, 2016)
- [Using data to maximize telematics benefits](#)
(Fleet Equipment Magazine / December 6, 2016)
- [The Story Behind the World's First Environmental Impact Bond](#)
(Living Cities / December 13, 2016)

Meetings/Presentations/Events

- DC Water provided an update on its Saint Elizabeth's Water Storage Tower Project during the November monthly meeting of ANC 8D.
- DC Water attended the November monthly meeting of the Bloomingdale Civic Association to provide updates on its local Small Diameter Water Main Replacement

Message from the CEO/GM

Project. Also, important information was shared pertaining to the Lead Service Replacement program, as part of this ongoing project.

- At his request, DC Water's outreach team welcomed incoming ANC 2E Commissioner Joseph Gibbons to Blue Plains to provide a brief discussion on the various ways in which DC Water works with ANCs on our various construction projects, specifically those projects taking place in and immediately surrounding the Georgetown community.
- DC Water attended the November monthly meeting of ANC 5A to discuss events succeeding the 8-inch water main break which impacted homeowners within the 1200 block of Delafield Place, NE.
- As part of its Speakers Bureau, DC Water attended the monthly meeting of the Hillwood Condominium Association to provide educational materials and information on the following topics: Water Conservation; How to Spot Water Leaks Inside the Home.
- DC Water attended the Mayor's Annual Senior Holiday Celebration, providing its Mobile Water Conservation Unit and a host of educational materials and giveaways.
- In support of its local Small Diameter Water Main Replacement Project in the Bloomingdale neighborhood, DC Water hosted a public meeting to provide important information pertaining to its Lead Service Replacement program, as part of this project.

Drinking Water Marketing and Communications

- External Affairs presented at ANC 2A's monthly meeting about lead in drinking water and minimizing lead exposure on 11/16.
- External Affairs coordinated emergency communications with DC Water's Office of Emergency Management, the Washington Aqueduct, and other regional utilities during the Potomac Spill Event in December.
- External Affairs coordinated with the MWCOG Community Engagement Campaign to run movie theater ads for the Protect Your Pipes campaign during the week of 11/25-12/1.

Customer Newsletter

The December customer newsletter included a cover story on the new meter replacement program, a story on water main break season, a General Manager's message on giving to SPLASH, how to protect your pipes from the cold, the Let's talk About Water program hosted by OEA and an ad for the Pope Branch Park Clean-up event.

Tours

- 25 Engineers from the Department of Defense
- 10 representatives from the DC Sustainable Energy Utility
- 4 Municipal Analysts
- 5 DC Residents
- 20 students from Capitol Hill Day School
- 15 Policy Fellows from American Association for the Advancement of Science
- 35 representatives from the EPA (25 from the Office of Water)
- 18 USAID Engineers
- 10 representatives from WSSC
- 5 Municipal Analysts from T. Rowe Price

Message from the CEO/GM

Social Media



Top Posts By Engagement









ORGANIZATIONAL PERFORMANCE DASHBOARD (NOVEMBER, 2016)

Financial Highlights

Net Operating Cash Actual 36590 Target 13776 (\$ tho)	Operating Revenues Actual 111 Target 99 (\$ mil)	Operating Expenses Actual 76 Target 89 (\$ mil)	Capital Disbursements Actual 92 Target 83 (\$ mil)
Operating Cash Balance Actual 154 Target 126 (\$ mil)	Delinquent Account Receivables Actual 2 Target 3 (%)	Core Investments Yield Actual 1.13 Target 1.1 (%)	Short Term Investment Yield Actual 0.64 Target 0.37 (%)

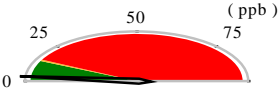
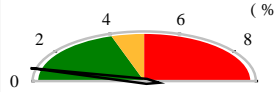
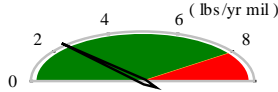
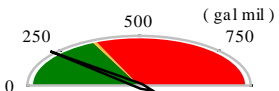
Customer Care and Operations Highlights

Call Center Performance  Nov 71 85 (% of calls rec)	Command Center Performance  Nov 94 85 (% of calls rec)	First Call Resolution  Nov 83 75 (% of calls rec)	Emergency Response Time  Nov 94 90 (% of calls rec)
Fire Hydrants out of Service  Nov 41 96 (count)	Fire Hydrant Insps. and Maint. 1149 (count)	Fire Hydrants Replaced  Nov 12 250 (YTD count)	Permit Processing within SLA 78 (%)

Low Income Assistance Program

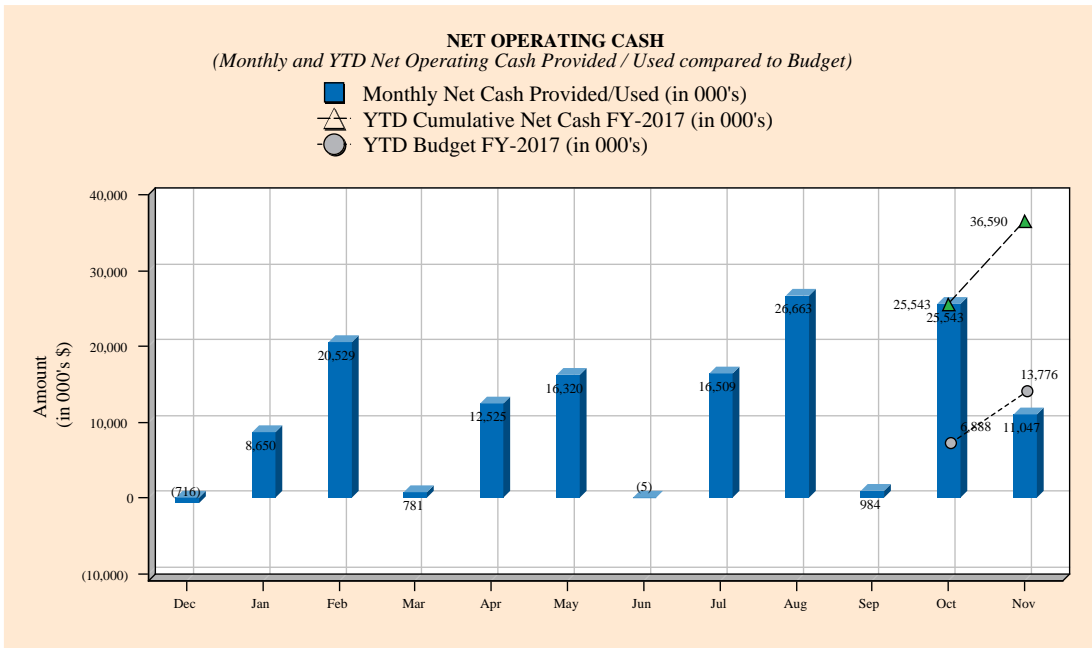
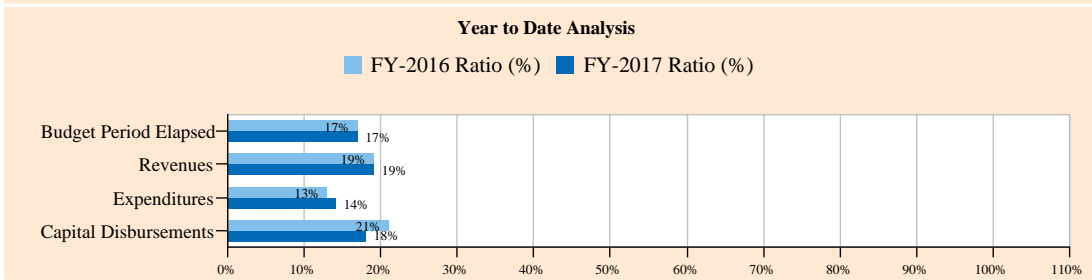
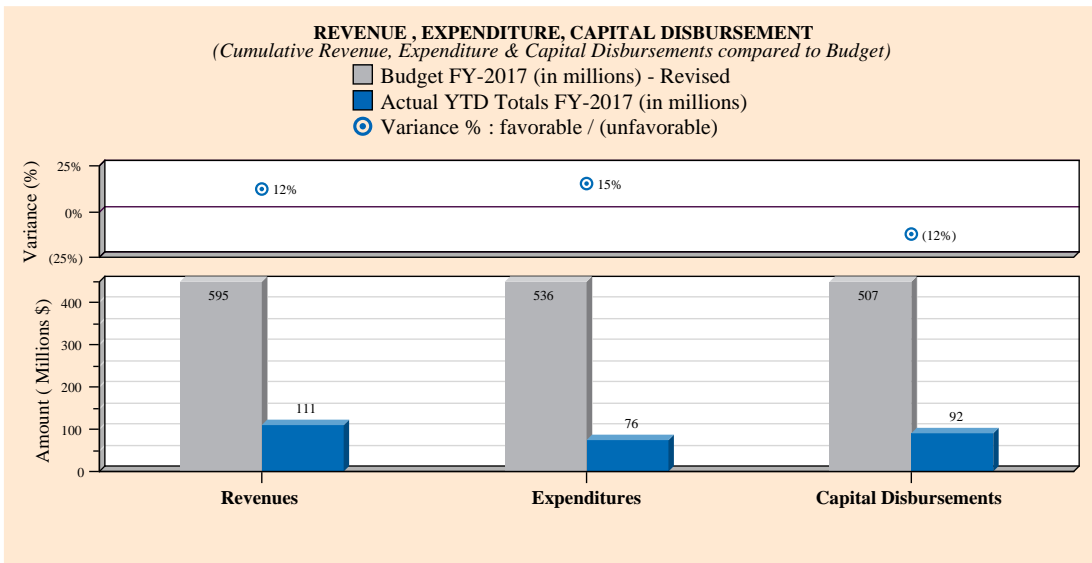
Splash Contributions Actual 17 Target 13 (\$ tho)	Customer Assistance Program Previous 1 Current 45 (\$ tho)
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Operational Highlights

Lead Concentration 0 25 50 75 (ppb) 	Total Coliform Rule 0 2 4 6 8 (%) 	Biosolids Production 450 (wet tons)	Total Nitrogen 0 2 4 6 8 (lbs/yr mil) 
Plant Effluent Flow 0 250 500 750 (gal mil) 	Excess Flow 0 (gal mil)	Water Main Leaks 62 (count)	Water Valve Leaks 1 (count)
Non-Revenue Water Sold 10 Purchased 14 (CCF mil)	Sewer Main Backups 4 (count)	Sewer Lateral Backups 201 (count)	Dry Weather CSO 0 (events)
Recruitment Activity Filled 14 Open 131 (count)	Electricity Usage 15284 (MWh)	Employee Lost Time Accidents 8 (count)	Vendor Payments Actual 98 Target 97 (%)

FINANCIAL HIGHLIGHTS

FINANCIAL PERFORMANCE SUMMARY

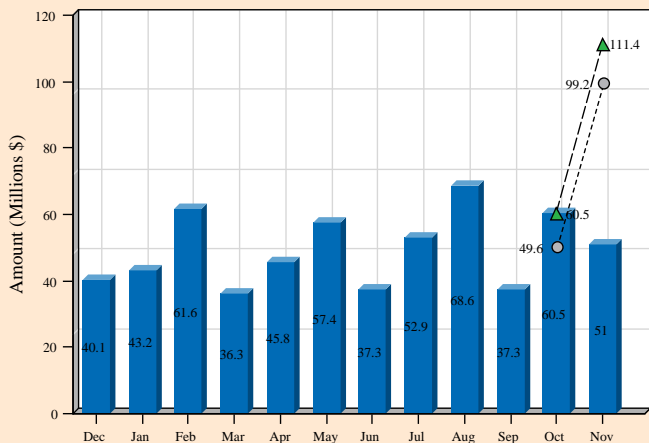


FINANCIAL HIGHLIGHTS

REVENUES AND OPERATING EXPENSES

OPERATING REVENUES
Monthly & Cumulative Revenue compared to YTD Budget

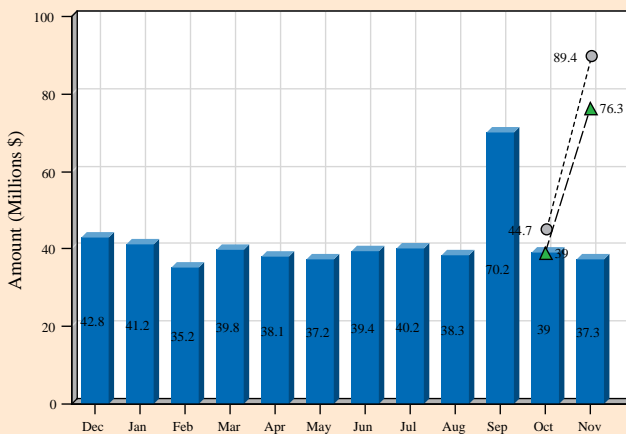
- Actual Monthly Revenue
- △ YTD Cumulative Revenue FY-2017
- YTD Cumulative Budget FY-2017



Revenue to date for November was above Budget by \$12 Million

OPERATING EXPENSES
Monthly & Cumulative Expenditure compared to YTD Budget

- Actual Monthly Expenses
- △ YTD Cumulative Expenditure FY-2017
- YTD Cumulative Budget FY-2017

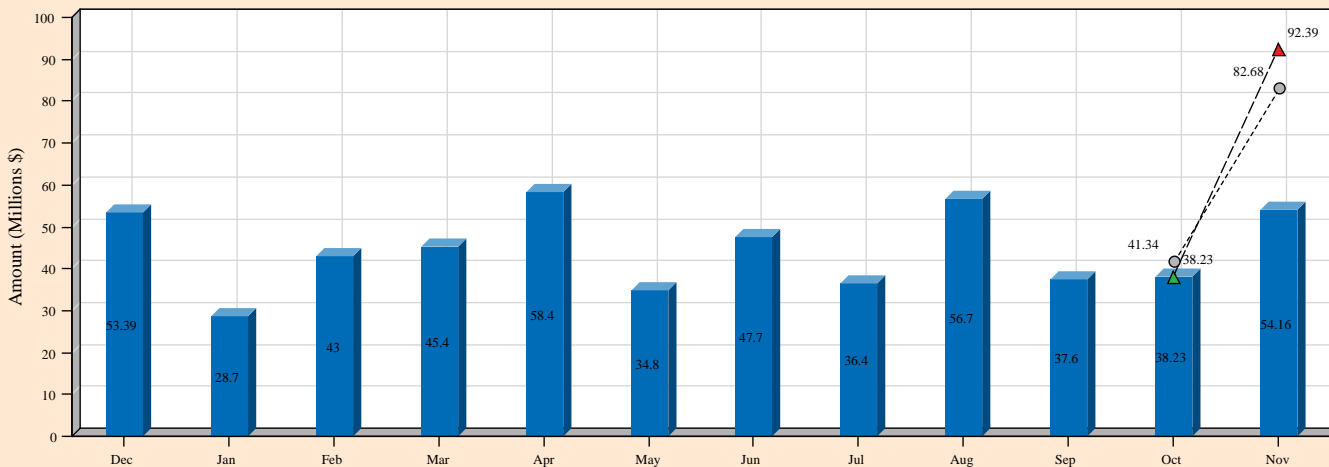


Expenditure to date for November was below budget by \$13 Million

CAPITAL SPENDING

CAPITAL DISBURSEMENTS
Monthly & Cumulative Disbursements compared to YTD Budget

- Actual Monthly Disbursements
- △ YTD Cumulative Disbursements FY-2017
- YTD Cumulative Budget FY-2017



Disbursements to date for November were above budget by \$10 Million

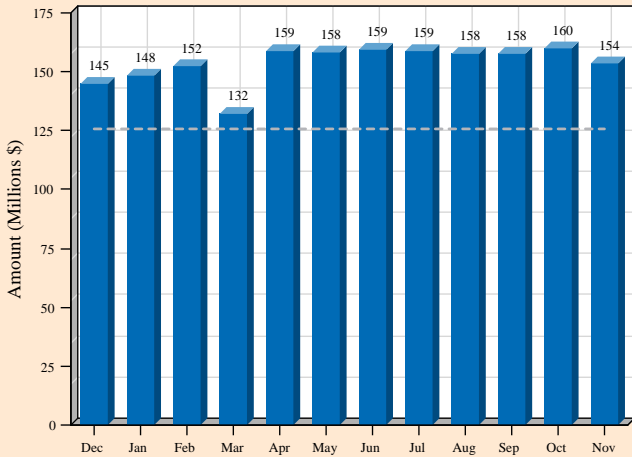
FINANCIAL HIGHLIGHTS

OPERATING CASH AND RECEIVABLES

OPERATING CASH BALANCE

Average Daily Cash Balance compared to Operating Reserve Target

- Actual Cash Balance FY-2017
- - - Operating Reserve Target - (126 Million)

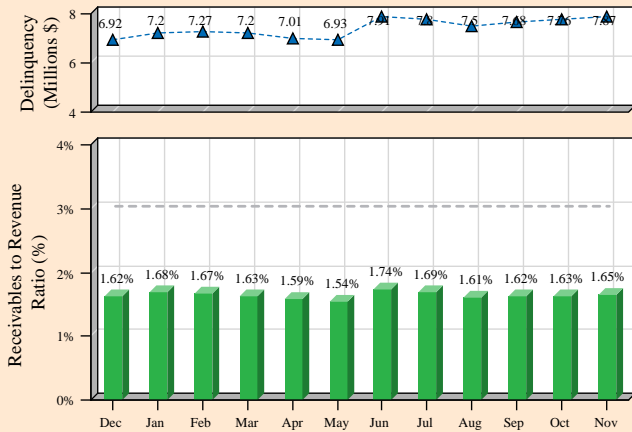


Cash Balance for November was above target by \$ 28 million

DELINQUENT ACCOUNT RECEIVABLES

Delinquency & Receivables to Revenue Ratio compared to Target

- Receivables to Revenue Ratio
- ▲ Delinquencies FY-2017 (in millions)
- - - Target: Receivables to Revenue Ratio (3%)



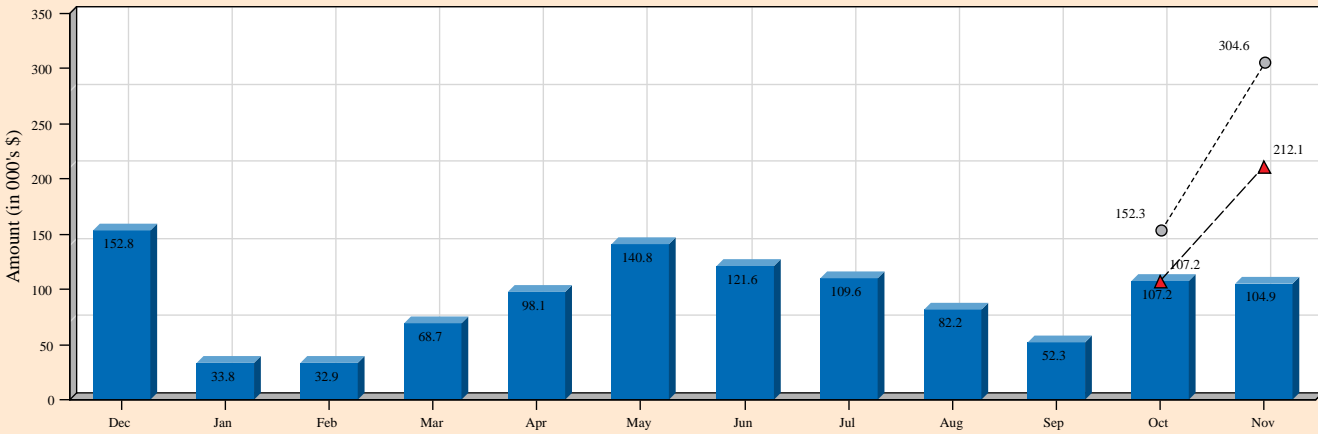
November Receivables to Revenue Ratio 1.7%, Delinquency \$7.9 Million

INVESTMENT EARNINGS

INVESTMENT CASH EARNINGS

Monthly & Cumulative Earnings compared to YTD Budget

- Monthly Earnings (in 000's)
- △ YTD Cumulative Earnings FY-2017 (in 000's)
- YTD Cumulative Earnings Budget FY-2017 (in 000's)



Earnings to date for November were below Projected Budget by \$93,000

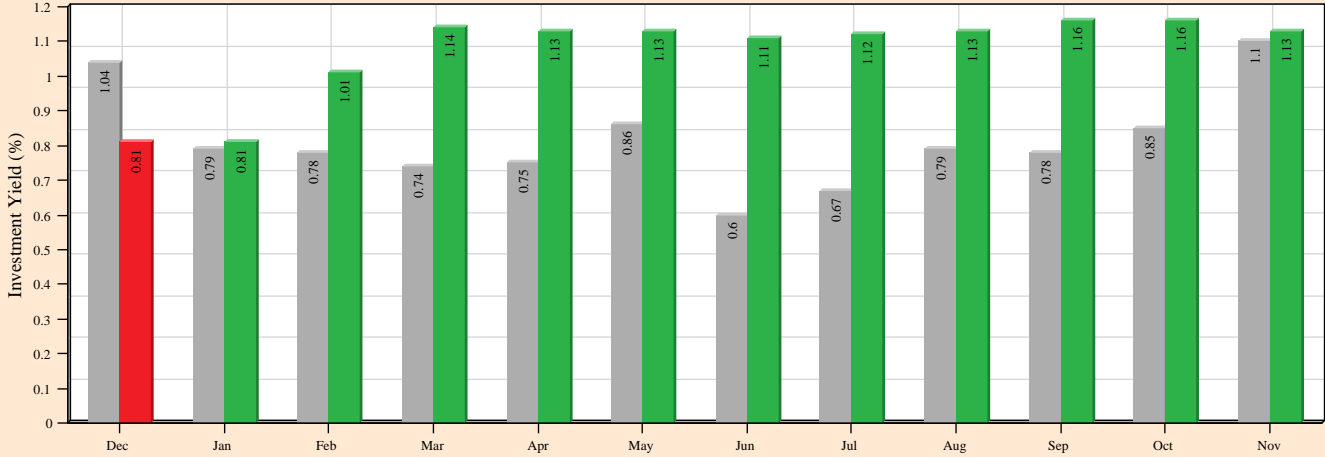
FINANCIAL HIGHLIGHTS

INVESTMENT YIELD

CORE INVESTMENTS YIELD

Monthly Yield compared to Merrill Lynch Benchmark

- Actual Monthly Yield (%)
- Merrill Lynch 1-3 Year Treasury Index - Book Value (%)

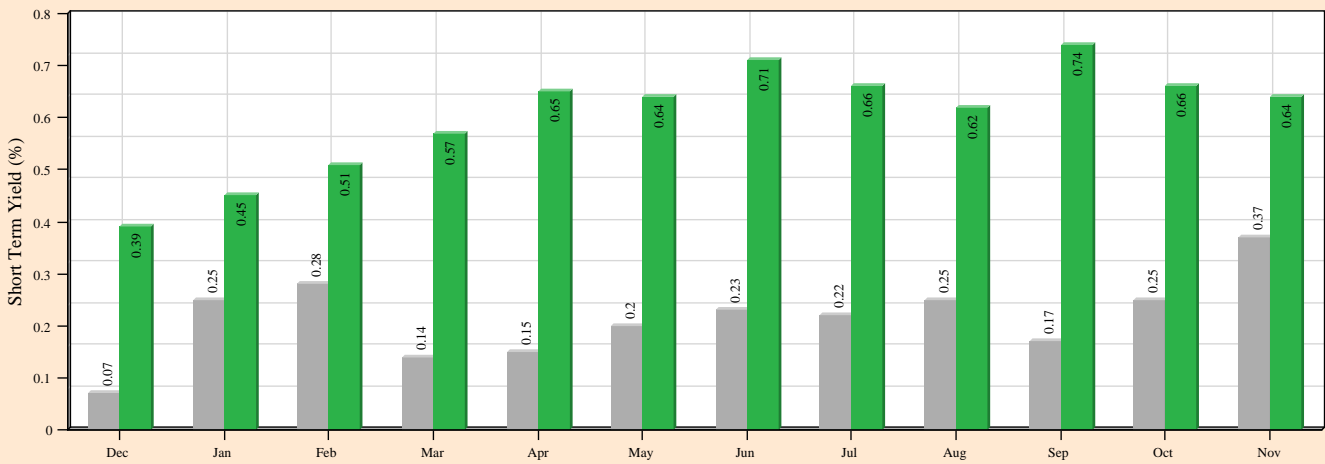


Yield for November was higher than the treasury index by 0.03%

SHORT TERM INVESTMENT YIELD

Short Term Yield compared to Merrill Lynch Benchmark

- Actual Monthly Yield (%)
- Merrill Lynch 3-Month Treasury Index - Book Value (%)



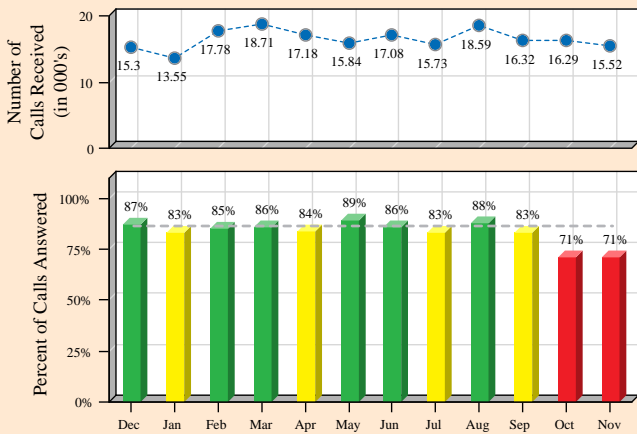
Short Term Yield for November was higher than the Merrill Lynch yield by 0.27%

CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

CUSTOMER SERVICE

CALL CENTER PERFORMANCE
Calls Answered within 40 Seconds compared to Target

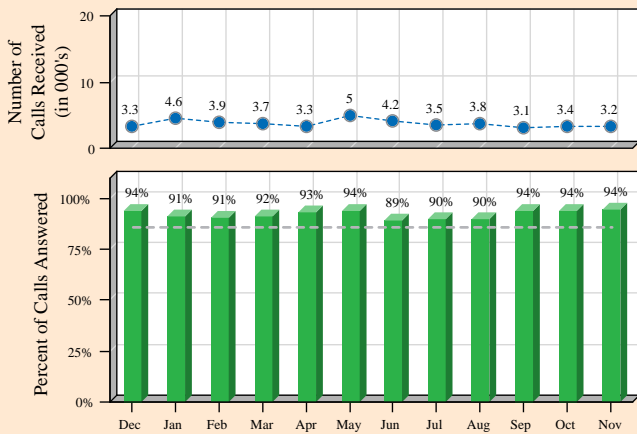
- Call Center: Calls answered (%)
- No of Calls - Call Center (in 000's)
- - - Target -Call Center (85%)



Performance for November was below target by 14%

COMMAND CENTER PERFORMANCE
Calls Answered within 40 Seconds compared to Target

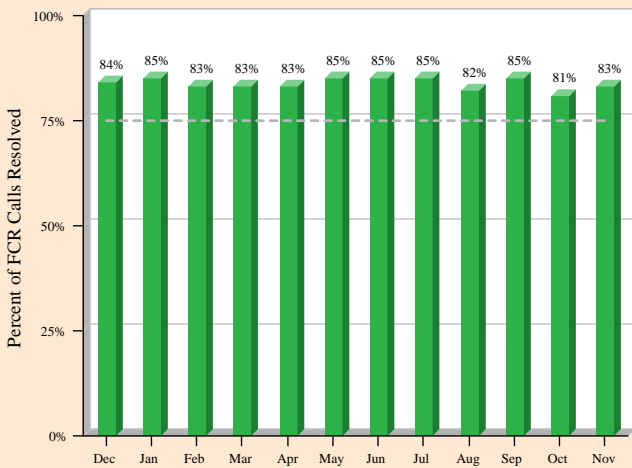
- Command Center: Calls answered (%)
- No of Calls - Command Center (in 000's)
- - - Target -Command Center (85%)



Performance for November was above target by 9%

FIRST CALL RESOLUTION (FCR)
Calls resolved on first contact compared to Target

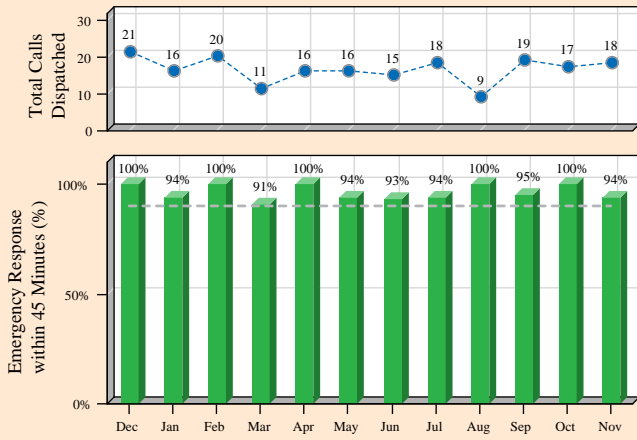
- FCR (%)
- - - FCR Target (75%)



Performance for November was above target by 8%

EMERGENCY RESPONSE TIME
Calls responded to within 45 Minutes compared to Target

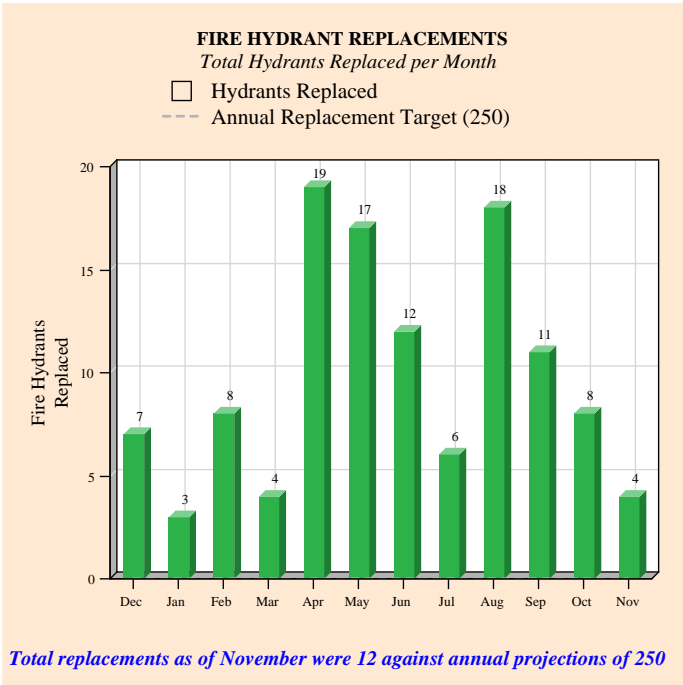
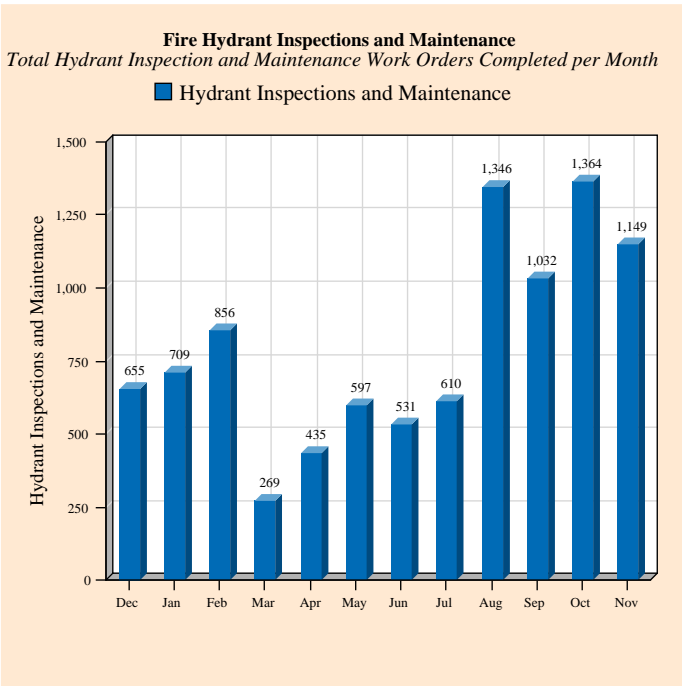
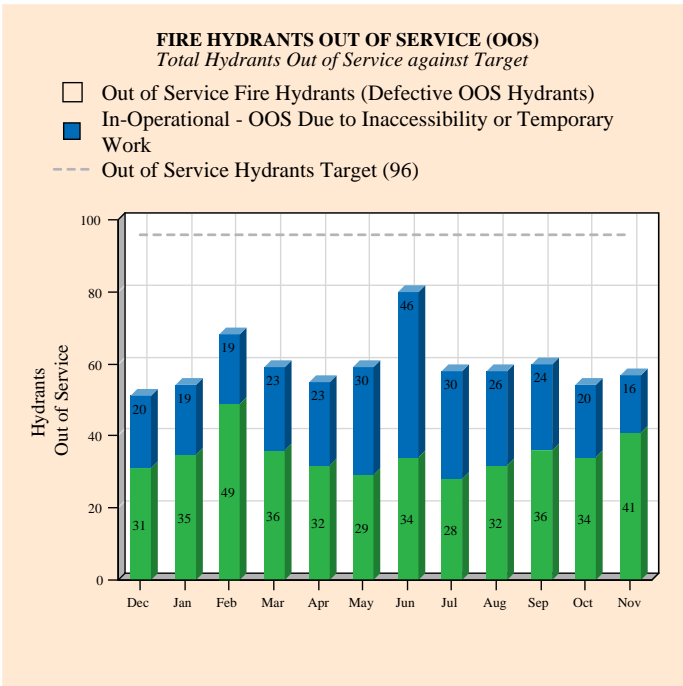
- Response (%) within Target
- Total Emergency Calls Dispatched
- - - Response Target (90%)



Performance for November was above target by 4%

CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

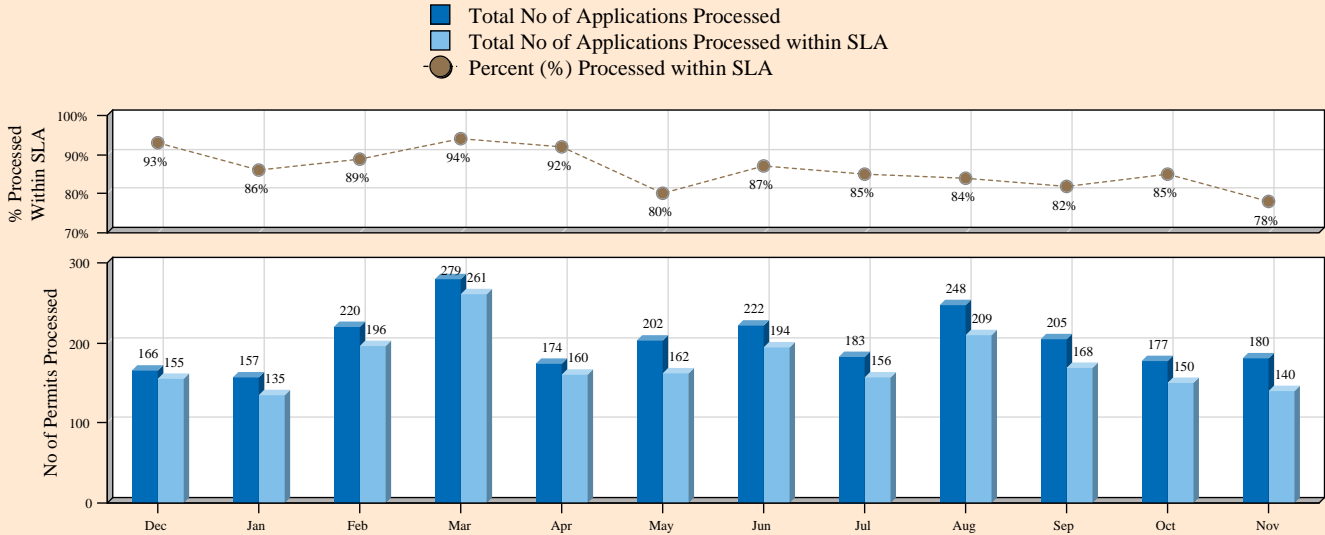
FIRE HYDRANTS



CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

PERMIT PROCESSING

TOTAL APPLICATIONS PROCESSED WITHIN SERVICE LEVEL AGREEMENT (SLA)



SLA Examples: Raze Permit - 14days, Sheeting and Shoring - 14 days, Preliminary Plan Review - 45 days

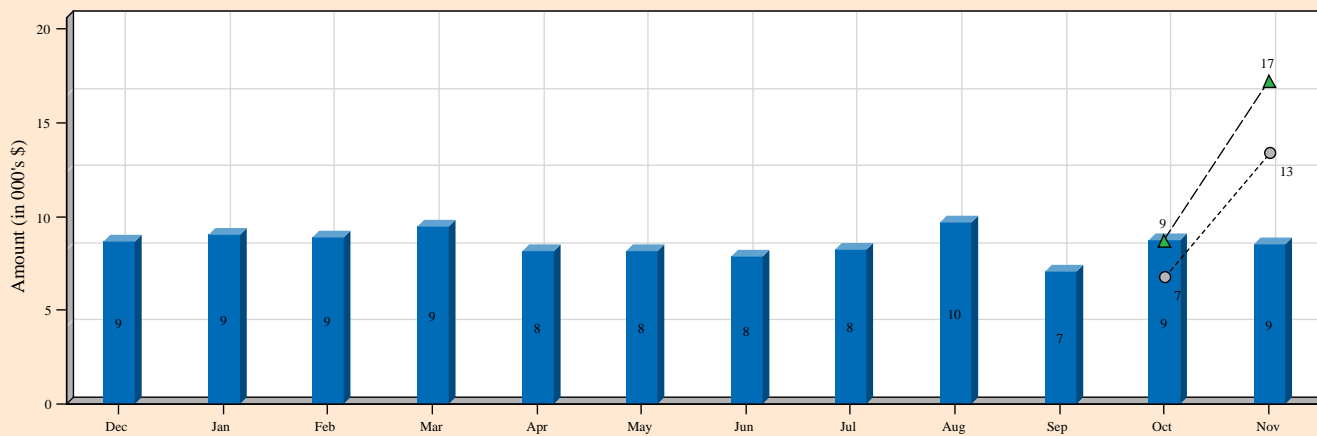
Permits not processed within SLA in November were 22% Note that different SLA's range from 7 days to 45 days

LOW INCOME ASSISTANCE PROGRAM

SPLASH PROGRAM

SPLASH CONTRIBUTIONS
 Monthly and Cumulative Contributions compared to YTD Target

- Monthly Contributions (in 000's)
- △ YTD Cumulative Contributions FY-2017 (in 000's)
- Projected YTD Target FY-2017 (in 000's)

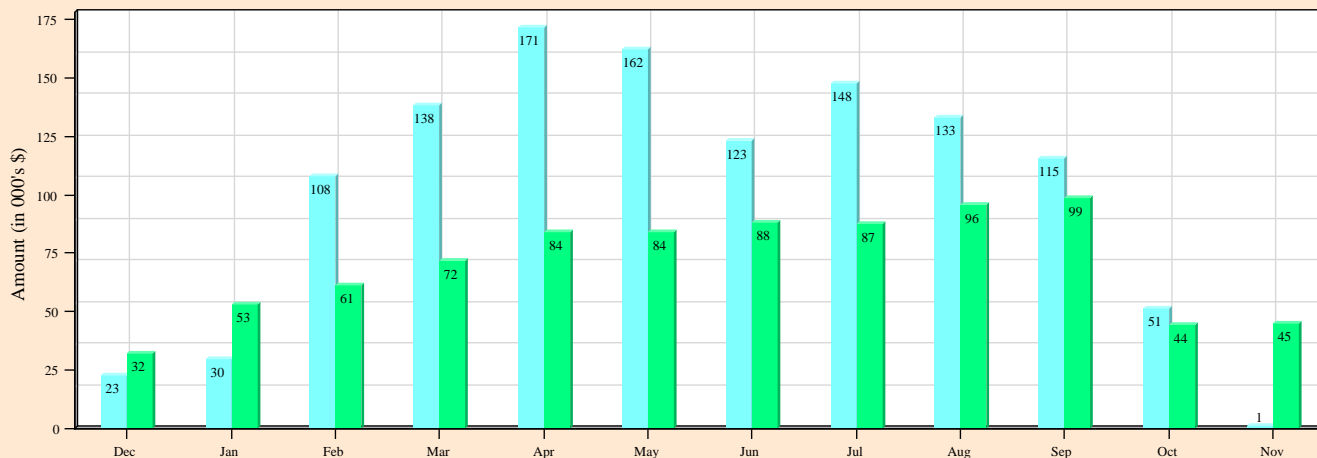


Total SPLASH Contributions to date for November were above target by \$4,000

CUSTOMER ASSISTANCE PROGRAM (CAP)

CUSTOMER ASSISTANCE PROVIDED
 Monthly Assistance Provided compared to corresponding Previous Year Periods

- Actual Monthly Amount - Previous Year (in 000's)
- Actual Monthly Amount - Current Year (in 000's)

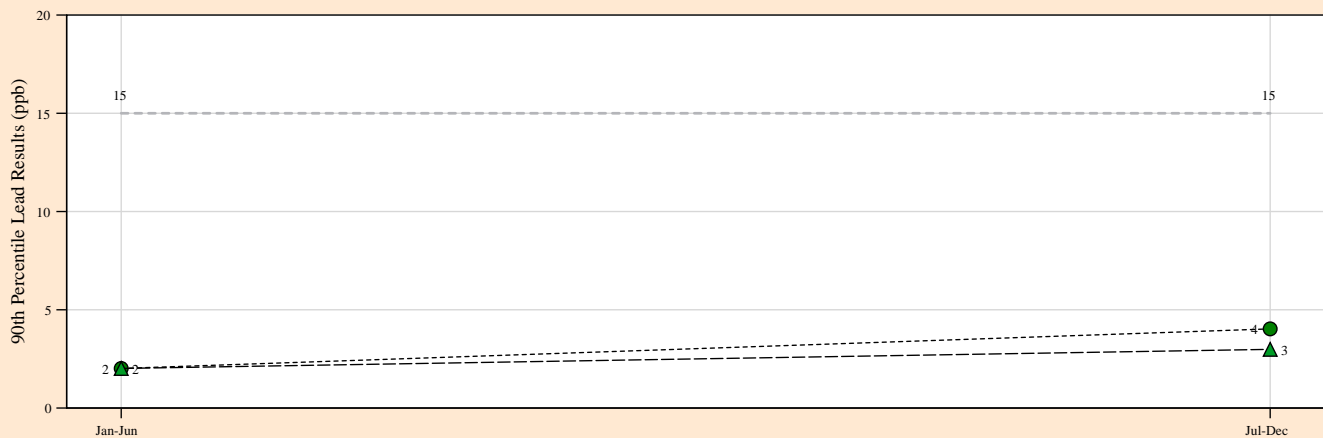


OPERATIONAL HIGHLIGHTS

DRINKING WATER QUALITY

LEAD AND COPPER RULE (LCR) COMPLIANCE
Semi-Annual LCR Monitoring Results

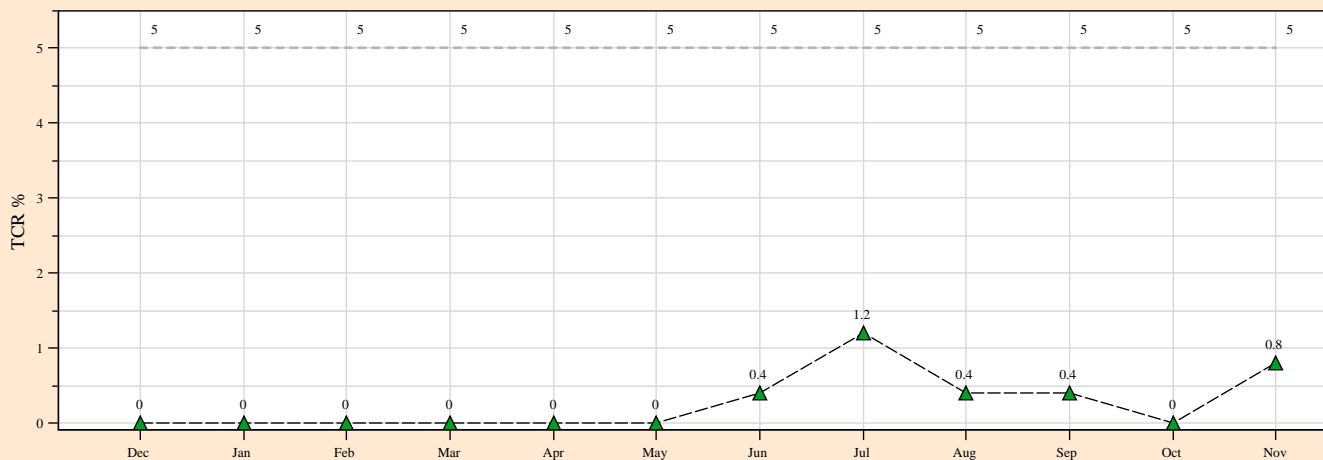
- 2015 LCR Results
- △ 2016 LCR Results
- Action Level : 15 parts per billion (ppb)



Jul-Dec 2016 results to date

TOTAL COLIFORM RULE (TCR)
Total Coliform Positives compared to EPA Maximum Contaminant Level (MCL)

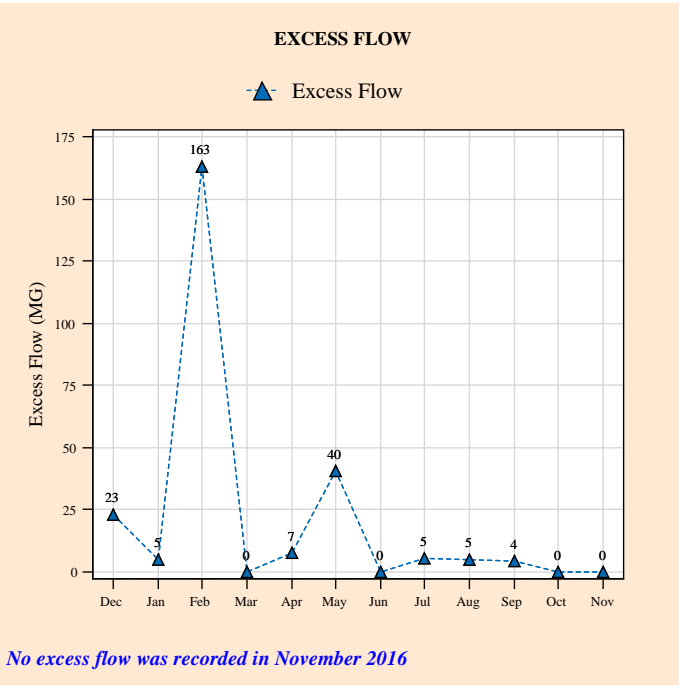
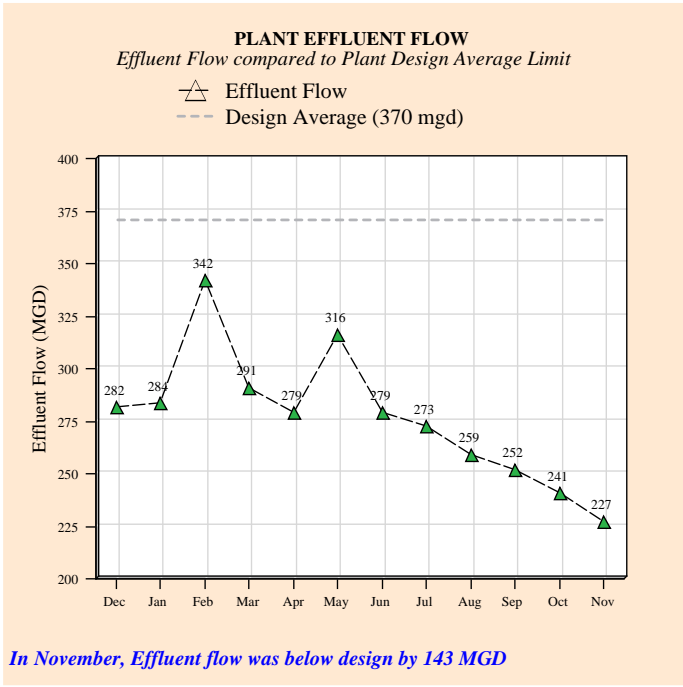
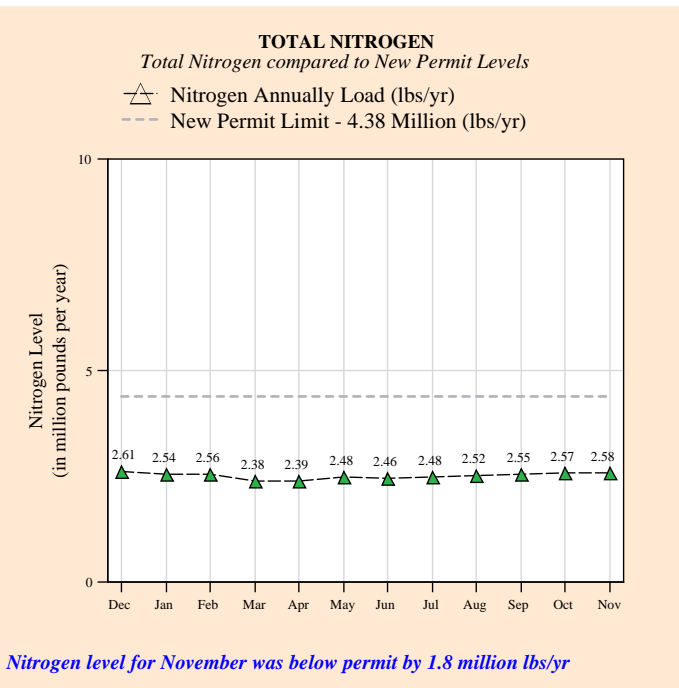
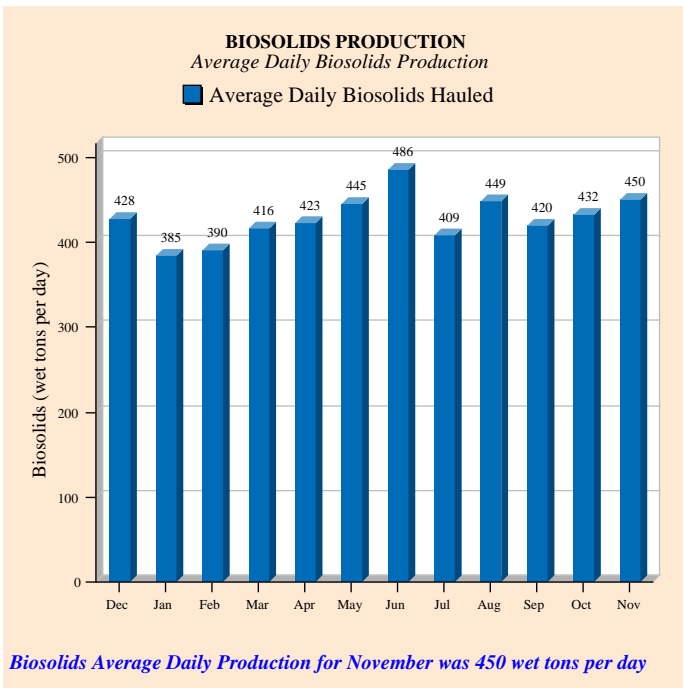
- △ TCR Level
- EPA Maximum Contaminant Level (5%)



Coliform Positives were recorded in November at 0.8%

OPERATIONAL HIGHLIGHTS

WASTEWATER TREATMENT

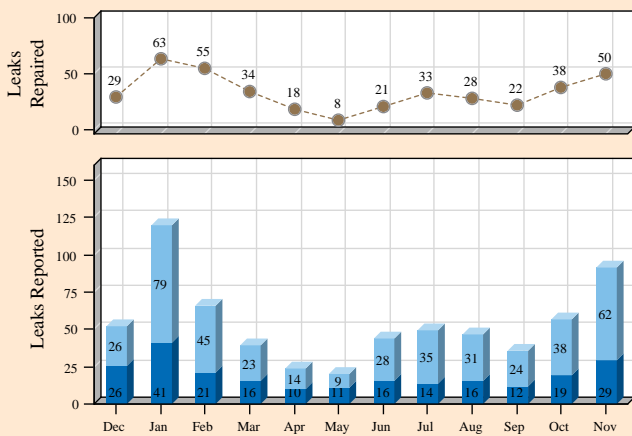


OPERATIONAL HIGHLIGHTS

WATER DISTRIBUTION OPERATIONS

WATER MAIN LEAKS

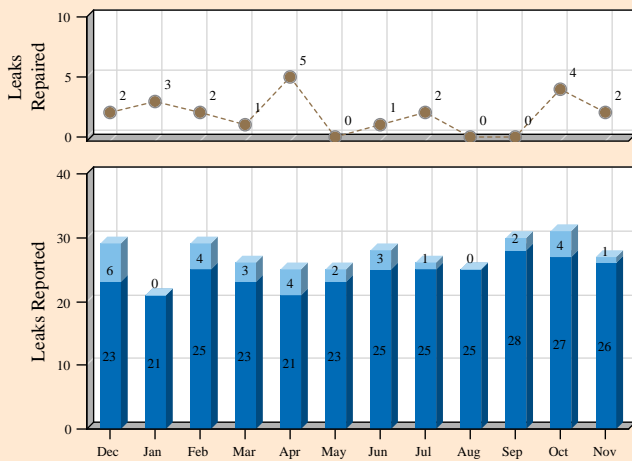
- Pending Main Work Orders
- Water Main Work Orders Reported
- Water Main Work Orders Repaired



There were 62 Water Main Work Orders reported in November

WATER VALVE LEAKS

- Pending Valve Leaks
- Valve Leaks Reported
- Valve Leaks Repaired



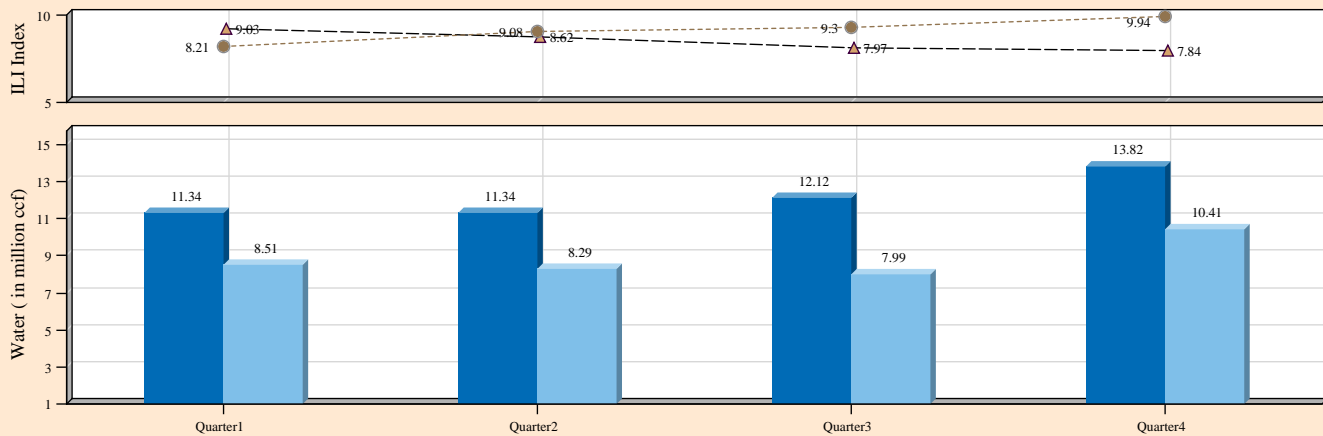
2 leaks were resolved in November

WATER BALANCE

NON-REVENUE WATER

Volume of Water Purchased and Sold per Quarter

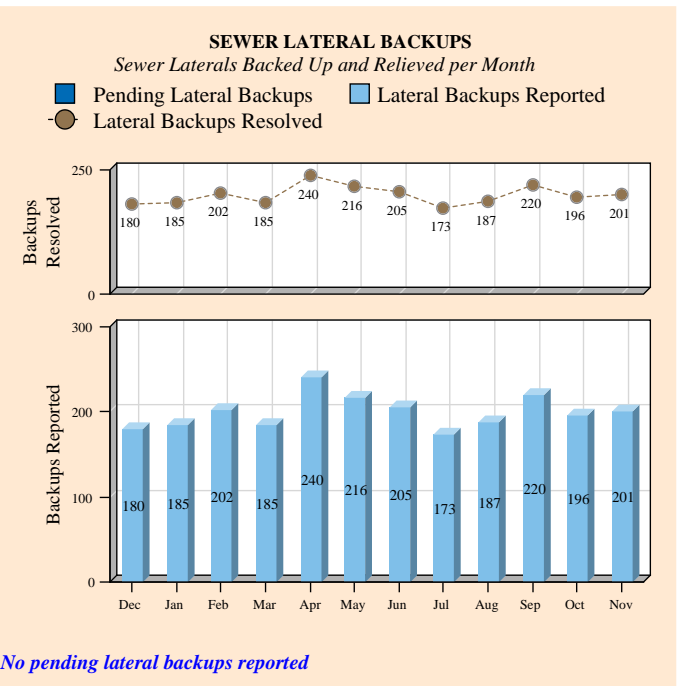
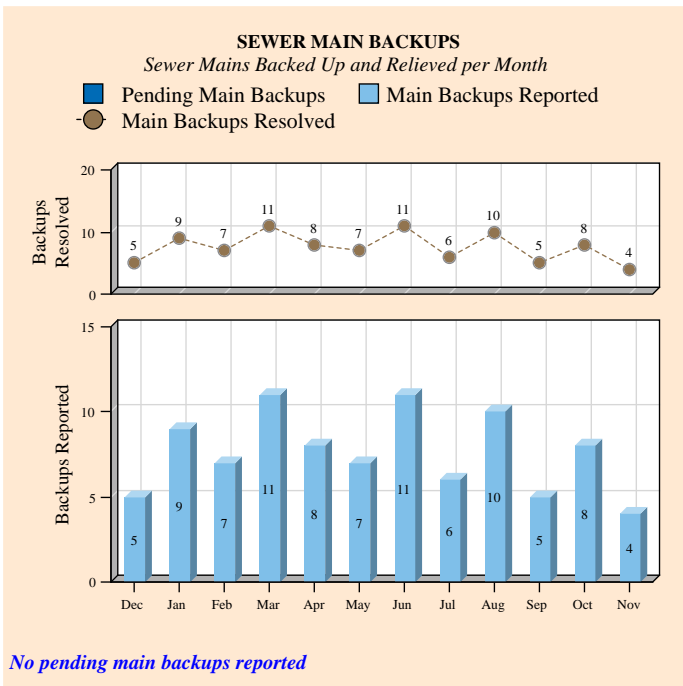
- FY-2016: Water Purchased
- FY-2016: Water Sold
- FY-2015: Infrastructure Leakage Index
- ▲ FY-2016: Infrastructure Leakage Index



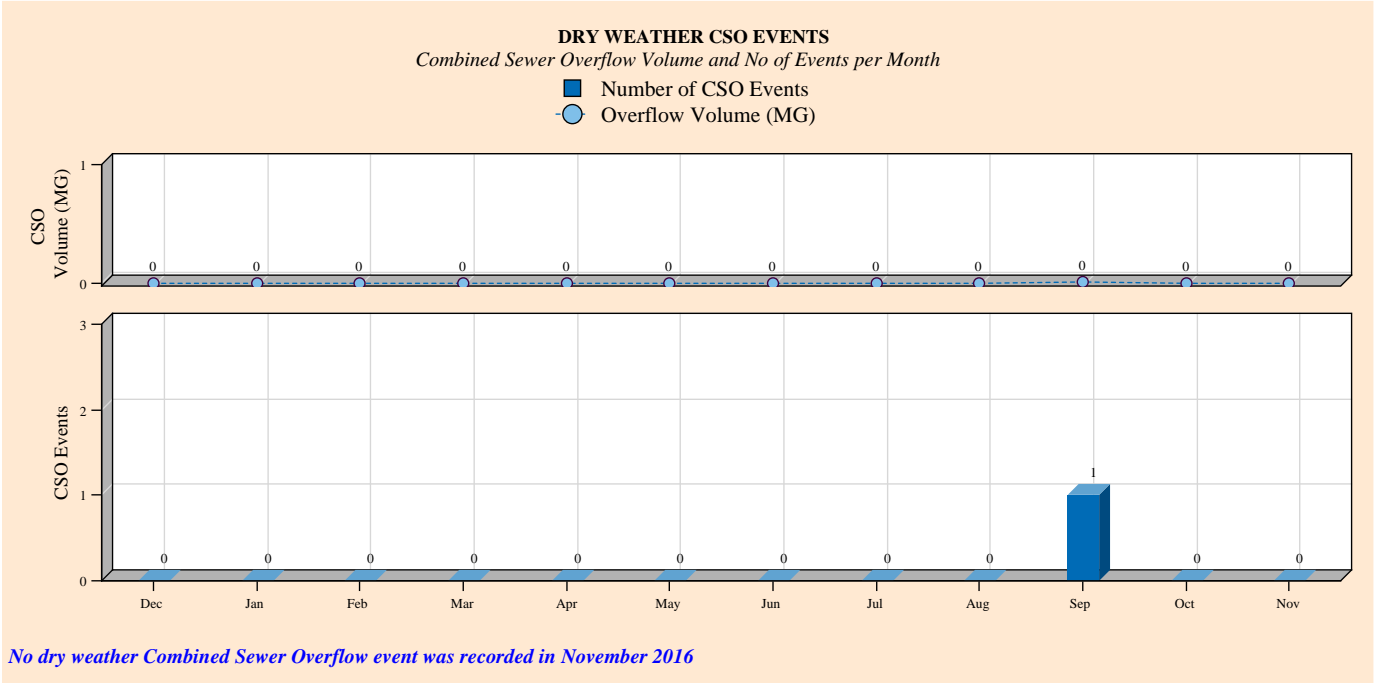
In the 4th quarter 10.4 out of 13.8 million cubic feet of water was sold

OPERATIONAL HIGHLIGHTS

SEWER SYSTEM OPERATIONS



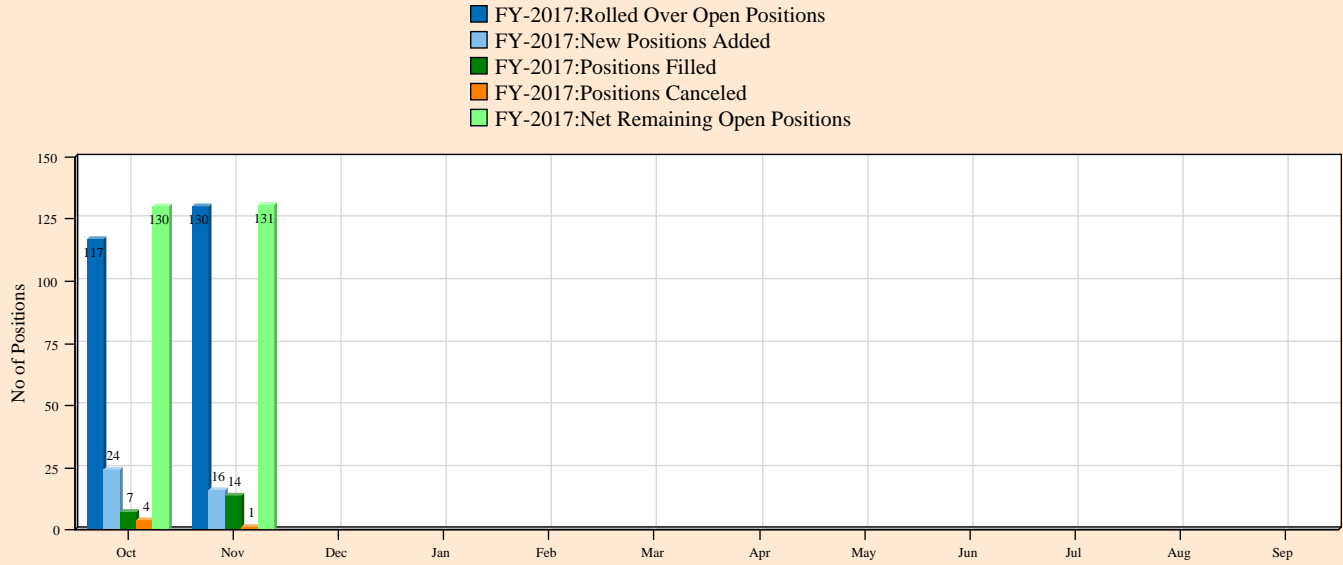
COMBINED SEWER SYSTEM



OPERATIONAL HIGHLIGHTS

HUMAN RESOURCES

RECRUITMENT ACTIVITY



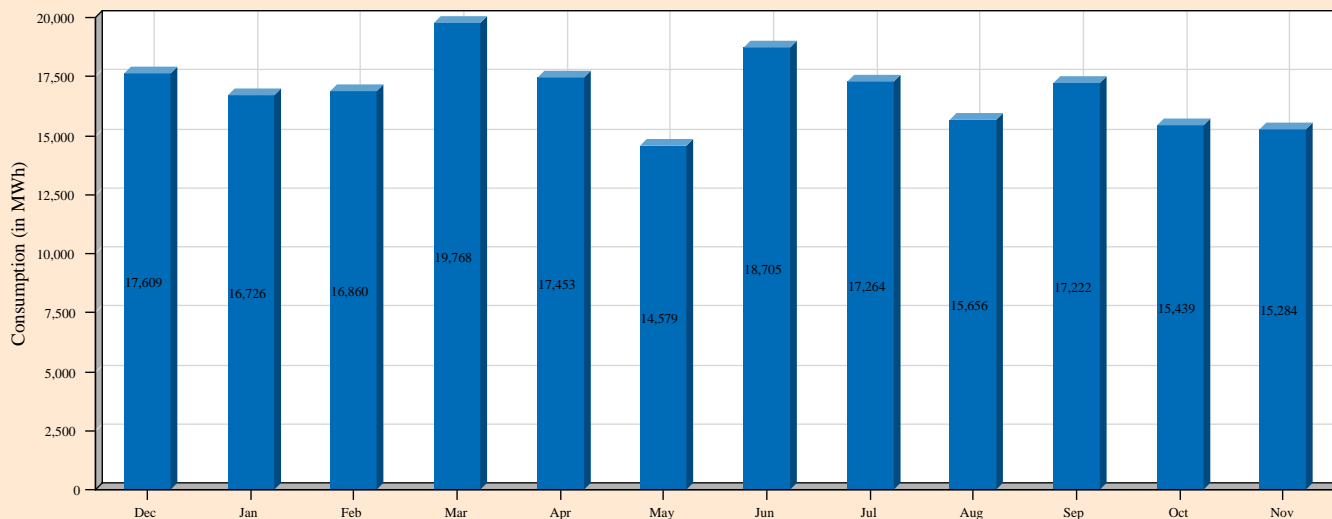
In November we began the month with 130 positions, received 16 new positions, filled 14, 1 cancellation and ended the month with 131 positions

OPERATIONAL HIGHLIGHTS

ENERGY

ELECTRICITY USAGE SUMMARY

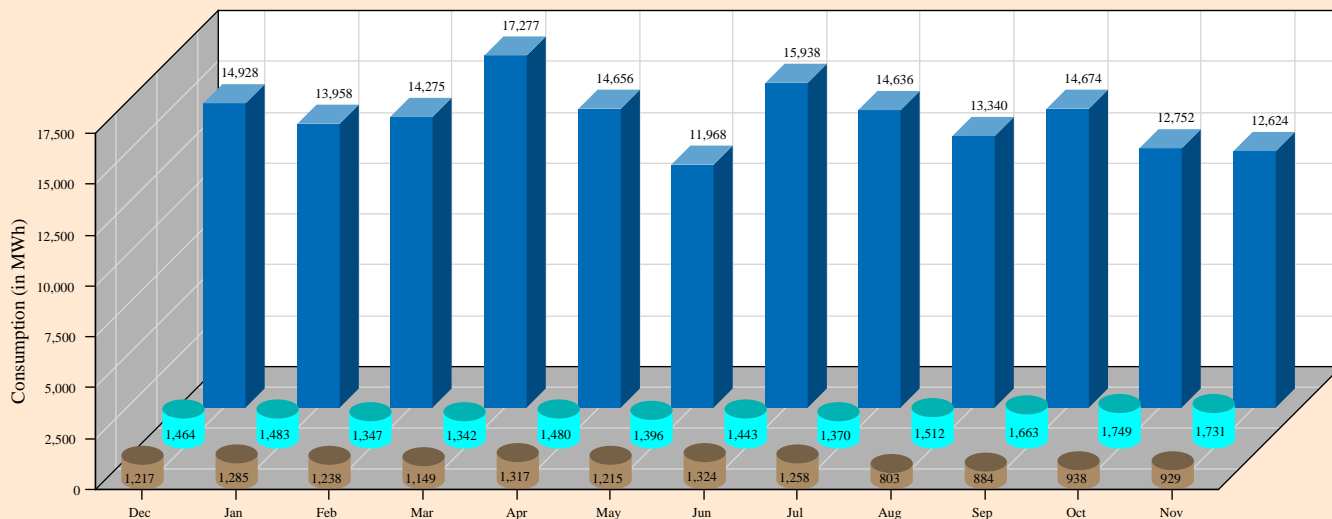
■ Total Consumption (MWh)



Electricity Consumption in November was 15,284 MWh

ELECTRICITY USAGE BY SERVICE AREA

■ Sewer Pumping ■ Water Pumping ■ Waste Water Treatment



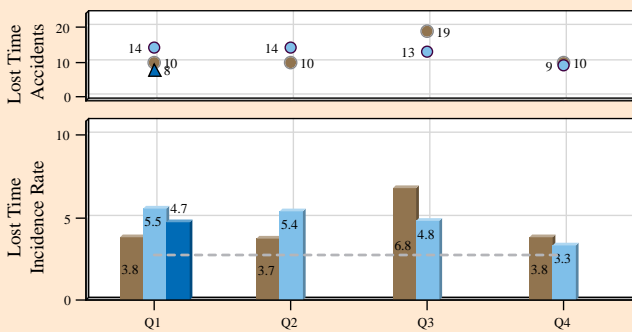
Wastewater treatment had the highest electricity consumption in November at 12,624 MWh

OPERATIONAL HIGHLIGHTS

SAFETY

EMPLOYEE LOST TIME INCIDENCE RATE

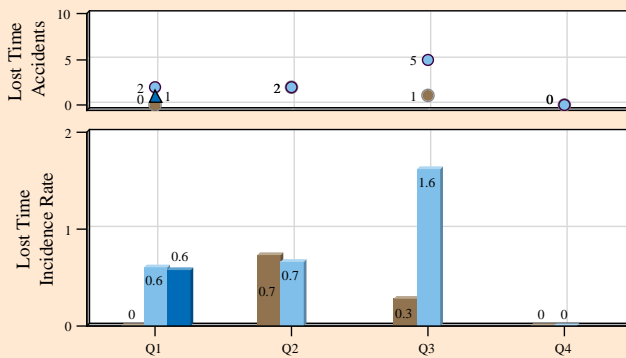
- FY-2015: LT Incidence Rate
- FY-2016: LT Incidence Rate
- FY-2017: LT Incidence Rate
- FY-2015: No of LT Accidents
- FY-2016: No of LT Accidents
- ▲ FY-2017: No of LT Accidents
- Target/National: LT Incidence Rate



Thru the 2nd Month of 1st quarter, 8 lost time accidents were reported

CONTRACTOR LOST TIME INCIDENCE RATE

- FY-2015: LT Incidence Rate
- FY-2016: LT Incidence Rate
- FY-2017: LT Incidence Rate
- FY-2015: No of LT Accidents
- FY-2016: No of LT Accidents
- ▲ FY-2017: No of LT Accidents

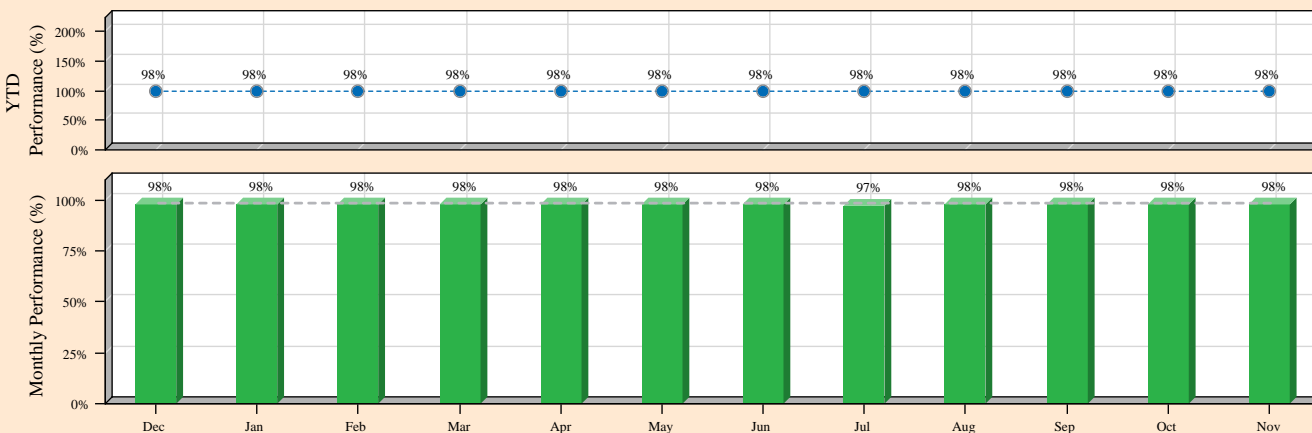


Thru the 2nd Month of 1st quarter, 1 lost time accident was reported

VENDOR PAYMENTS

VENDOR PAYMENT PERFORMANCE
Percentage of Invoices Paid within 30 days

- Monthly Performance (%)
- YTD Performance (%)
- Monthly Target - (97%)



Monthly performance for November was above Budget by 1%

INTERPRETATION OF CHARTS:

FINANCIAL HIGHLIGHTS

Revenue, Expenditure, Capital Disbursement

- Bulls eye shows the variance for YTD budget against actual for revenues, expenditures and capital disbursements
- Bar graph shows **total** for the fiscal year budgeted(grey)-revenues, expenditures and capital disbursements against YTD actual(blue)
- Horizontal line graph shows a YTD progress analysis as compared to the previous year

Net Operating Cash

- Bar graph shows monthly net operating cash provided/used
- Line graph denoted by (Δ) compares YTD actual against budget (O). This element is dynamically color coded*

Operating Revenues

- Bar graph shows monthly operating revenues
- Line graph denoted by (Δ) compares YTD revenue against budget (O). This element is dynamically color coded*

Operating Expenses

- Bar graph shows monthly operating expenses
- Line graph denoted by (Δ) compares YTD expenditure against budget (O). This element is dynamically color coded**

Capital Disbursements

- Bar graph shows monthly capital disbursements
- Line graph denoted by (Δ) compares YTD disbursements against budget (O). This element is dynamically color coded**

Operating Cash Balance

- Bar graph shows monthly average cash balance compared to the target of \$125 million; indicated by grey dotted line

Delinquent Account Receivables

- Bar graph shows monthly Receivables to Revenue ratio against target of 3%; indicated by grey dotted line. This element is dynamically color coded**
- Line graph denoted by (Δ) shows delinquency in actual dollars

Investment Cash Earnings

- Bar graph shows monthly investment cash earnings
- Line graph denoted by (Δ) compares the YTD earnings against budget (O). This element is dynamically color coded*

Core Investments Yield

- Bar graph shows the monthly investment yield compared to the monthly target (grey) benchmark as set by the US Treasury Bill. This element is dynamically color coded*

Short Term Investment Yield

- Bar graph shows the monthly short term investment yield compared to the monthly short term target (grey) benchmark as set by the US Treasury Bill. This element is dynamically color coded*

Dynamic Color Coding Legend

*	**
<p>Red - when the actual is lower than 3% of budget or target</p> <p>Yellow - when the actual is within 3% of budget or target</p> <p>Green - when the actual is equal to or higher than budget or target</p>	<p>Red - when the actual is higher than 3% of budget or target</p> <p>Yellow - when the actual is within 3% of budget or target</p> <p>Green - when the actual is equal to or lower than budget or target</p>

Symbols where the color code applies- (Δ, □)

A

CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

Call Center Performance

- Bar graph shows monthly percentage of calls answered within 40 seconds against target of 85%; indicated by grey dotted line. This element is dynamically color coded***
- Line graph denoted by (O) shows the number of calls received by the call center every month

Command Center Performance

- Bar graph shows monthly percentage of calls answered within 40 seconds against target of 85%; indicated by grey dotted line. This element is dynamically color coded***
- Line graph denoted by (O) shows the number of calls received by the command center every month

First Call Resolution (FCR)

- Bar graph shows monthly percentage of calls resolved on first contact against target of 75%; indicated by grey dotted line. This element is color dynamically coded***

Emergency Response Time

- Bar graph shows the percentage of emergency calls responded to within 45 minutes against target of 90%; indicated by grey dotted line. This element is dynamically color coded***
- Line graph denoted by (O) shows the total calls dispatched per month

Fire Hydrants Out of Service (OOS)

- Bar graph shows total hydrants not available for use against target of 91; indicated by grey dotted line. This element is dynamically color coded****
- The bar graph is stacked (blue) to show hydrants that are inaccessible. Inaccessible hydrants are not measured against the target of 91

Fire Hydrant Inspections and Maintenance

- Bar graph shows the total number of fire hydrants repaired per month

Fire Hydrant Replacements

- Bar graph shows the total number of hydrants replaced per month against target of 21; indicated by grey dotted line. This element is dynamically color coded***

Total Applications Processed within Service Level Agreement (SLA)

- Bar graph shows
 - the number of permits processed per month(dark blue)
 - the number of permits processed within SLA per month(light blue)
- Line graph denoted by (O) shows the percentage of permits processed vs. processed within SLA

Dynamic Color Coding Legend

***	****
Red- when the actual is lower than 5% of budget or target Yellow- when the actual is within 5% of budget or target Green- when the actual is equal to or higher than budget or target	Red- when the actual is higher than 5% of budget or target Yellow- when the actual is within 5% of budget or target Green- when the actual is equal to or lower than budget or target

Symbols where the color code applies- (Δ, □)

LOW INCOME ASSISTANCE PROGRAM

SPLASH Contributions

- Bar graph shows monthly SPLASH contributions
- Line graph denoted by (Δ) shows the YTD contributions against target (O). This element is color coded***

Customer Assistance Program (CAP)

- Bar graph shows monthly CAP assistance
- Line graph denoted by (Δ) shows the YTD contributions against budget (O). This element is color coded***

OPERATIONAL HIGHLIGHTS

Lead and Copper Rule (LCR) Compliance

- Line graph denoted by (Δ, O) shows semi-annual LCR monitoring results against target of 15ppb; indicated by grey dotted line. This element is color coded****

Total Coliform Rule (TCR)

- Line graph denoted by (Δ) shows total coliform positives against the EPA maximum contaminant level of 5%. This element is color coded****

Biosolids Production

- Bar graph shows monthly average daily biosolids production

Total Nitrogen

- Line graph denoted by (Δ) shows monthly total nitrogen level against the current permit (dark grey) and 2015 permit (light grey) levels. This element is color coded****

Plant Effluent Flow

- Line graph denoted by (Δ) shows monthly influent flow against the plant design average limit of 370MGD. This element is color coded****

Excess Flow

- Line graph denoted by (Δ) shows monthly excess flow

Water Main Leaks

- Bar graph shows the water main leaks reported
- The bar graph is stacked(dark blue) to show the pending leaks carried over from the previous month if any; bar graph(light blue) shows new water main leaks reported for the given month
- Line graph denoted by (O) shows the number of main leaks repaired per month

Water Valve Leaks

- Bar graph shows the water valve leaks reported
- The bar graph is stacked(dark blue) to show the pending leaks carried over from the previous month if any; bar graph(light blue) shows new water valve leaks reported for the given month
- Line graph denoted by (O) shows the number of valve leaks repaired per month

Dynamic Color Coding Legend

***	****
Red- when the actual is lower than 5% of budget or target Yellow- when the actual is within 5% of budget or target Green- when the actual is equal to or higher than budget or target	Red- when the actual is higher than 5% of budget or target Yellow- when the actual is within 5% of budget or target Green- when the actual is equal to or lower than budget or target

Symbols where the color code applies- (Δ, □)

Non Revenue Water

- Bar graph shows the volume of water purchased(dark blue) and water sold(light blue) per quarter
- Line graph denoted by (Δ, O) shows the Infrastructure Leakage Index(ILI) for the current and previous year

Sewer Main Backups

- Bar graph shows the sewer main backups reported
- The bar graph is stacked(dark blue) to show the pending backups carried over from the previous month if any; bar graph(light blue) shows new sewer main backups reported for the given month
- Line graph denoted by (O) shows the number of main backups resolved per month

Sewer Lateral Backups

- Bar graph shows the sewer lateral backups reported
- The bar graph is stacked(dark blue) to show the pending backups carried over from the previous month if any; bar graph(light blue) shows new sewer laterals backups reported for the given month
- Line graph denoted by (O) shows the number of lateral backups resolved per month

Combined Sewer dry weather Overflow (CSO) Events

- Bar graph shows dry weather CSO events per month
- Line graph denoted by (O) shows the volume in Million Gallons(MG) per dry weather CSO event

Open Positions

- Bar graph (dark blue) shows open positions carried over from the previous month.
- Bar graph (light blue) shows new positions added in the given month.
- Bar graph (olive green) shows positions filled in the given month.
- Bar graph (orange) shows positions cancelled in the given month.
- Bar graph (light green) shows net remaining open positions at the end of the given month.

Electricity Usage Summary

- Bar graph shows total electricity consumption per month

Electricity Usage by Service Area

- Shows a monthly breakdown by service area of electricity usage
- Dark blue shows for Waste Water Treatment Service Area
- Light blue shows Water Pumping Service Area
- Brown shows Sewer Pumping Service Area

Employee Lost Time Incidence Rate

- Bar graph shows quarterly Employee Lost Time (LT) incidence rate as compared to the National average LT rate of 2.0; indicated by grey dotted line. Light blue represents the previous year, brown represents the year before previous and dark blue the current fiscal year.
- Scatter graph denoted by (Δ, O) shows the number of Lost Time accidents and comparison is also made between the current year and the previous years.

Contractor Lost Time Incidence Rate

- Bar graph shows quarterly Contractor Lost Time (LT) incidence rate. Light blue represents the previous year, brown represents the year before previous and dark blue the current fiscal year.
- Scatter graph denoted by (Δ, O) shows the number of Lost Time accidents and comparison is also made between the current year and the previous years.

Dynamic Color Coding Legend

***	****
Red- when the actual is lower than 5% of budget or target Yellow- when the actual is within 5% of budget or target Green- when the actual is equal to or higher than budget or target	Red- when the actual is higher than 5% of budget or target Yellow- when the actual is within 5% of budget or target Green- when the actual is equal to or lower than budget or target

Symbols where the color code applies- (Δ, □)

Vendor Payment Performance

- Bar graph shows monthly Vendor Payment Performance percentage against monthly target of 97%; indicated by grey dotted line. This element is dynamically color coded**
- Line graph denoted by (O) shows the YTD vendor payment performance %.

Dynamic Color Coding Legend

***	****
<p>Red- when the actual is lower than 5% of budget or target</p> <p>Yellow- when the actual is within 5% of budget or target</p> <p>Green- when the actual is equal to or higher than budget or target</p>	<p>Red- when the actual is higher than 5% of budget or target</p> <p>Yellow- when the actual is within 5% of budget or target</p> <p>Green- when the actual is equal to or lower than budget or target</p>

Symbols where the color code applies- (Δ, □)

E



**Summary of Contracts on Consent Agenda
227th Meeting of the DC Water Board of Directors
Thursday, January 5, 2017**

Joint-Use Contracts

- 1. Resolution No. 17-01 - Execute Option Year One of Contract No. 15-PR-WWT-53B, PVS Technology. The purpose of the option is to supply and deliver liquid ferric chloride to DC Water's Blue Plains Advanced Wastewater Treatment Facility. The option amount is \$1,443,487.50 (Recommended by Environmental Quality and Sewerage Services Committee 12/15/16)**

- 2. Resolution No. 17-02 - Execute Option Year One of Contract No. 15-PR-WWT-53A, Carter & Carter Enterprises Inc. The purpose of the option is to supply and deliver liquid ferric chloride to DC Water's Blue Plains Advanced Wastewater Treatment Facility. The option amount is \$3,281,775. (Recommended by Environmental Quality and Sewerage Services Committee 12/15/16)**

- 3. Resolution No 17-03 - Execute Contract No. DCFA #458-WSA, World Water Works, Inc. The purpose of the contract is to provide professional services associated with commissioning, harvesting and providing anammox seed sludge and provisions for operational support for the Filtrate Treatment Facility at Blue Plains. The contract amount is \$1,395,150. (Recommended by Environmental Quality and Sewerage Services Committee 12/15/16)**

- 4. Resolution No. 17-04 - The Board of Directors hereby authorizes the General Manager to execute Contract No. DCFA #429-WSA, Arcadis District of Columbia PC. The purpose of the contract is to provide onsite Construction Management Services for the Biosolids Management Program. The supplemental agreement amount is \$1,297,015. (Recommended by Environmental Quality and Sewerage Services Committee 12/15/16)**

5. **Resolution No. 17-05 - Execute Supplemental Agreement No. 05 of Contract No. DCFA #441, PEER Consultants, PC. The purpose of the supplemental agreement is to provide start-up, operations and maintenance engineering services. The work will be assigned as task orders on an as needed basis. The supplemental agreement amount is \$7,962,816.44. (Recommended by Environmental Quality and Sewerage Services Committee 12/15/16)**

Non-Joint Use Contracts

1. **Resolution No. 17-06 - Execute Contract No. 150210, Anchor Construction Corporation. The purpose of the contract is to provide the final design and construction of Division RC-A-Rock Creek Project A Green Infrastructure in support of the DC Clean Rivers Project. This work is required by a Consent Decree. The contract amount is \$26,841,393.50. (Recommended by Environmental Quality and Sewerage Services Committee 12/15/16)**
2. **Resolution No. 17-07 - Execute Contract No. DCFA #478-WSA, Rummel, Klepper & Kahl, LLP. The purpose of the contract is to provide onsite construction management of Division RC-A-Rock Creek Project A (GI) and Division PR-A1-Potomac River Project A1(GI) DC Clean Rivers Project during construction contracts. The contract amount is \$3,467,419. (Recommended by Environmental Quality and Sewerage Services Committee 12/15/16)**
3. **Resolution No. 17-08 - Execute additional funding of Contract No. WAS-11-057-AA-SH, Business Promotion Consultants, Inc. The purpose of the contract is to supply parts for water meters manufactured by Neptune and purchased through Business Process Consultants. The additional funding amount is \$300,000. (Recommended by Water Quality and Water Services Committee 12/15/16)**
4. **Resolution No. 17-09 - Execute Option Year Four of Contract No., WAS-12-070-AA-SC, Business Promotion Consultants, Inc. The purpose of the contract is to provide meter lids for daily operations and to support DC Water's Automated Meter Reading (AMR) Replacement Program. The option amount is \$1,300,000. (Water Quality and Water Services Committee 12/15/16)**
5. **Resolution No. 17-10 - Execute Contract No. 17-PR-CCO-07, Mueller Systems. The purpose of the contract is to provide 1.5-inch and 2-inch**

positive displacement meters to fulfill a requirement of their Automated Meter Reading (AMR) program. This program is to upgrade meter equipment to be compatible with DC Water's new Advanced Meter Infrastructure (AMI) system. The contract amount is \$1,700,000. (Recommended by Water Quality and Water Services Committee 12/15/16)

Presented and Adopted: January 5, 2017
Subject: Approving the Final Form of Certain Documents,
Authorizing the Sale and Setting Terms and Details
of the Series 2017A and Series 2017B Bonds

#17-00
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors (“Board”) of the District of Columbia Water and Sewer Authority (“Authority”), at its meeting on January 5, 2017, by a vote of _____ (___) in favor and _____ (___) opposed, decided to approve the following:

WHEREAS, the Authority is authorized pursuant to the *Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996*, as amended, D.C. Code Section 34-2201.01 et seq. (the “WASA Act”), and the *District of Columbia Water and Sewer Authority Act of 1996*, Public Law 104-184; 110 Stat. 1696, to issue revenue bonds for undertakings authorized by the WASA Act, including to finance or refinance any cost, as defined in the WASA Act, D.C. Code Section 34-2202.01(2); and

WHEREAS, in accordance with the WASA Act, the Authority and Wells Fargo Bank, National Association, as trustee (the “Trustee”) (its predecessors in that capacity having been Norwest Bank Minnesota, N.A. and Wells Fargo Bank Minnesota, N.A.), entered into the Master Indenture of Trust, dated as of April 1, 1998 (the “Master Indenture” and, as supplemented and amended, the “Indenture”), to provide for financing or refinancing the acquisition, construction, operation, maintenance and extension of the System (as defined in the Master Indenture) by the issuance of bonds, notes and other obligations payable solely from Net Revenues (as such terms are defined in the Master Indenture); and

WHEREAS, the Authority has heretofore entered into twenty-one (21) supplemental indentures of trust with the Trustee in connection with the issuance of Senior Debt and Subordinate Debt (both as defined in the Indenture) or to amend and clarify the Master Indenture; and

WHEREAS, the Authority now intends (i) to issue Public Utility Senior Lien Revenue Bonds, Series 2017A (Green Bonds) (the “Series 2017A Bonds”) to (a) finance a portion of the costs of the Authority’s DC Clean Rivers Project (as defined in the preliminary Official Statement, dated January [____], 2017, for the Series 2017A/B Bonds); (b) fund a Series 2017A Debt Service Reserve Requirement, (as defined herein), if determined necessary; and (c) pay certain costs of issuance; (ii) to issue Public Utility

Senior Lien Revenue Bonds, Series 2017B (the “Series 2017B Bonds” and, together with the Series 2017A Bonds, the “Series 2017A/B Bonds”) to (a) finance certain Costs of the System; (b) fund a Series 2017B Debt Service Reserve Requirement, (as defined herein), if determined necessary; and (c) pay certain costs of issuance; (iii) to designate the Series 2017A/B Bonds as Senior Debt for purposes of the Indenture; and (iv) to secure the Series 2017A/B Bonds by a pledge of Net Revenues on a parity with the pledge of Net Revenues that secures other Senior Debt, including, without limitation, other Senior Debt that the Authority may issue from time to time in the future; and

WHEREAS, the CEO and General Manager, the Chief Financial Officer, the Chief Engineer and the General Counsel of the Authority have informed the Board that their offices have established “due diligence” procedures for reviewing the documents authorized by this Resolution with the Authority’s bond counsel, disclosure counsel, financial advisors, underwriters, underwriters’ counsel and other consultants and advisors, with a view to ensuring the accuracy of disclosure; and

WHEREAS, the Finance and Budget Committee met on December 14, 2016, to review the issuance of the Series 2017A/B Bonds and has recommended approval of this Resolution by the Board;

NOW, THEREFORE, BE IT RESOLVED, that:

Section 1. Definitions and Interpretations. Unless otherwise defined herein and unless the context indicates otherwise, the terms used herein and defined in the Indenture (including the Twenty-Second Supplemental Indenture as hereby approved) shall have the meanings assigned to them therein. In addition, the following terms used as defined terms in this Resolution shall have the meaning assigned to them in this Section:

“Authorized Officials” means the Chairman and Vice Chairman of the Board and the CEO and General Manager, Chief Financial Officer, Controller, Budget Director, Finance Director and Rates and Revenue Director of the Authority, provided that any official other than the Chairman shall be designated by the Chairman as his designee for the purpose of executing and delivering any document authorized hereunder.

“Bond Purchase Agreement” means the Bond Purchase Agreement between the Authority and the Series 2017A/B Original Purchasers, dated as of the same date as the Certificate of Award.

“Certificate of Award” means the certificate of an Authorized Official awarding the Series 2017A/B Bonds to the Series 2017A/B Original Purchasers and specifying terms of the Series 2017A/B Bonds, as provided for in Section 4 of this Resolution.

“Continuing Disclosure Agreement” means the Continuing Disclosure Agreement executed by the Authority and the Trustee, dated as of the same date as the

date of issuance and delivery of the Series 2017A/B Bonds, as originally executed and as it may be amended from time to time in accordance with its terms.

“Financial Advisor” means, collectively, Public Financial Management, Inc. and G~Entry Principle, P.C.

“Interest Payment Dates” means for the Series 2017A/B Bonds, each April 1 and October 1, commencing on the April 1 or October 1 specified in the Certificate of Award as the first Interest Payment Date, and thereafter during the time the Series 2017A/B Bonds are Outstanding.

“Series 2017A Debt Service Reserve Requirement” means, if determined in the Certificate of Award to be necessary, a required fund balance in the Series 2017A Debt Service Reserve Account or Accounts established under the Twenty-Second Supplemental Indenture, the amount of which shall be specified in the Certificate of Award, but which shall not exceed the maximum amount permitted to constitute a “reasonably required reserve or replacement fund” under the size limitation set forth in Section 1.148-2(f)(2) of the Treasury Regulations promulgated under the Code (taking into account any moneys in any other fund or account that may be required to be included in such computation) unless the Authority furnishes to the Trustee an opinion of nationally recognized bond counsel to the effect that the existence of a balance in the Series 2017A Debt Service Reserve Account in the amount of the specified required fund balance will not cause the interest on any Series 2017A Bonds intended to be excluded from gross income for federal income tax purposes not to be so excluded.

“Series 2017A/B Original Purchasers” for the Series 2017A/B Bonds means the purchasers identified as such in the Bond Purchase Agreement for the Series 2017A/B Bonds.

“Series 2017B Debt Service Reserve Requirement” means, if determined in the Certificate of Award to be necessary, a required fund balance in the Series 2017B Debt Service Reserve Account or Accounts established under the Twenty-Second Supplemental Indenture, the amount of which shall be specified in the Certificate of Award, but which shall not exceed the maximum amount permitted to constitute a “reasonably required reserve or replacement fund” under the size limitation set forth in Section 1.148-2(f)(2) of the Treasury Regulations promulgated under the Code (taking into account any moneys in any other fund or account that may be required to be included in such computation) unless the Authority furnishes to the Trustee an opinion of nationally recognized bond counsel to the effect that the existence of a balance in the Series 2017B Debt Service Reserve Account in the amount of the specified required fund balance will not cause the interest on any Series 2017B Bonds intended to be excluded from gross income for federal income tax purposes not to be so excluded.

“Twenty-Second Supplemental Indenture” means the Twenty-Second Supplemental Indenture of Trust by and between the Authority and the Trustee, dated as of the same date as and relating to the Series 2017A/B Bonds.

Any reference to the Authority or the Board, or to their members or officers, or to other public officers, boards, commissions, departments, institutions, agencies, bodies or entities, shall include those who or which succeed to their functions, duties or responsibilities by operation of law and also those who or which at the time may legally act in their place.

Section 2. Authorization, Designation and Purposes of Series 2017A/B Bonds. The Authority is authorized to issue, sell and deliver, as provided in this Resolution and the Certificate of Award, not to exceed (except as provided below) Three Hundred Fifty Million Dollars (\$350,000,000) aggregate principal amount of Series 2017A/B Bonds which aggregate amount shall be allocated between the Series 2017A Bonds and the Series 2017B Bonds in the Certificate of Award as is determined by the Chief Financial Officer as presenting the then optimal financing structure for the Authority. The Series 2017A Bonds shall be designated "Public Utility Senior Lien Revenue Bonds, Series 2017A (Green Bonds)" and shall constitute Senior Debt for purposes of the Indenture, for the purpose of: (a) financing a portion of the costs of the Authority's DC Clean Rivers Project, (b) funding a Series 2017A Debt Service Reserve Requirement, if determined necessary in the Certificate of Award; and (c) paying issuance costs of the Series 2017A Bonds. The Series 2017B Bonds shall be designated "Public Utility Senior Lien Revenue Bonds, Series 2017B" and shall constitute Senior Debt for purposes of the Indenture, for the purpose of: (a) financing certain Costs of the System; (b) funding a Series 2017B Debt Service Reserve Requirement, if determined necessary in the Certificate of Award; and (c) paying issuance costs of the Series 2017B Bonds. For those purposes the proceeds from the sale of the Series 2017A/B Bonds shall be allocated and deposited, as provided in the Twenty-Second Supplemental Indenture. If and to the extent that any Series 2017A/B Bonds are issued for the purpose of funding a Series 2017A Debt Service Reserve Requirement and/or a Series 2017B Debt Service Reserve Requirement, then the aggregate principal amount of Series 2017A/B Bonds hereby authorized may exceed \$350,000,000 by the aggregate principal amount of the Series 2017A/B Bonds to be issued for that purpose. Any designation of bonds authorized above may be revised or clarified in the Certificate of Award.

Section 3. Terms and Provisions Applicable to the Series 2017A/B Bonds.

(a) Form, Transfer and Exchange. The Series 2017A/B Bonds: (i) shall initially be issued only in fully registered form and substantially in the forms attached as Exhibits to the Twenty-Second Supplemental Indenture; (ii) shall initially be issued only to a Depository for holding in a book entry system, and shall be registered in the name of the Depository or its nominee, as Holder, and immobilized in the custody of the Depository, and (iii) shall not be transferable or exchangeable except as provided in the Twenty-Second Supplemental Indenture.

(b) Denominations and Dates. The Series 2017A/B Bonds shall be dated as of the date of issuance and delivery, but in no event later than December 31, 2017, and there shall be a single Series 2017A/B Bond representing each interest rate

for each maturity of the Series 2017A/B Bonds bearing the same series or subseries designation.

(c) Interest Rates and Principal Maturities. The Series 2017A/B Bonds shall bear interest on their unpaid principal amount payable on each Interest Payment Date, commencing on the first Interest Payment Date specified in the Certificate of Award, at such fixed rates per annum as set forth in the Certificate of Award as provided in Section 4(c) hereof, provided however, that the “true interest cost” (i.e., interest cost on bonds defined as the rate, compounded semiannually, necessary to discount the amounts payable on the respective interest and principal payment dates to the purchase price received for the bonds) on the Series 2017A/B Bonds shall not exceed five and one half percent (5.50%) per annum. The principal of the Series 2017A/B Bonds shall be paid in such amounts on each principal retirement date (whether at stated maturity date or a mandatory redemption date) as set forth in the Certificate of Award, provided that the final principal retirement date shall be no later than December 31, 2056.

(d) Optional and Mandatory Redemption.

(i) *Optional* - The Series 2017A/B Bonds maturing on or before any date specified in the Certificate of Award as the Earliest Optional Redemption Date (which shall be no later than October 1, 2027) are not subject to prior optional redemption. Any Series 2017A/B Bond maturing after the Earliest Optional Redemption Date shall be subject to redemption at the option of the Authority, prior to their stated maturities on or after the Earliest Optional Redemption Date in whole or in part (in whole multiples of \$5,000) on any date, at redemption prices specified in the Certificate of Award, provided that no such redemption price (not including accrued interest) shall exceed 102% of the principal amount of the Series 2017A/B Bonds to be redeemed.

(ii) *Mandatory Sinking Fund Redemption* - Any Series 2017A/B Bonds may be designated in the Certificate of Award as Term Bonds and be subject to mandatory sinking fund redemption by lot on specified principal retirement dates at a price equal to 100% of the principal amount to be redeemed, plus accrued interest to the date of redemption.

(e) Redemption Provisions. Redemption of Series 2017A/B Bonds shall be effected in accordance with Article IV of the Master Indenture; provided, however, that notices of redemption of the Series 2017A/B Bonds sent pursuant to Section 402 of the Master Indenture may specify that the redemption is conditional upon the Authority’s depositing the funds needed to effect that redemption prior to the specified redemption date.

(f) Places and Manner of Payment. The principal of and the interest and any redemption premium on the Series 2017A/B Bonds shall be payable at the places and in the manner specified in the Twenty-Second Supplemental Indenture.

(g) Execution. The Authorized Officials are, and each of them is, authorized and directed to execute the Series 2017A/B Bonds, and the Secretary of the Board is authorized and directed to affix the seal of the Authority to the Series 2017A/B Bonds and to deliver them to the Trustee for authentication in accordance with the Indenture.

Section 4. Sale of Series 2017A/B Bonds.

(a) General. The Series 2017A/B Bonds shall be awarded and sold to the Series 2017A/B Original Purchasers in accordance with the Bond Purchase Agreement and the Certificate of Award, at a purchase price of not less than ninety-five percent (95%) of the aggregate of the products from multiplying the principal amount of each Series 2017A/B Bonds times the percentage of such principal amount at which such Series 2017A/B Bond shall be initially offered to the public, after subtracting from the aggregate of such products the premium payable for any municipal bond insurance policy applicable to the Series 2017A/B Bonds.

(b) Bond Purchase Agreement. The Authorized Officials are, and each of them is, authorized and directed to execute and deliver the Bond Purchase Agreement between the Authority and the Series 2017A/B Original Purchasers, substantially in the form presented to this Authority, but with such changes not inconsistent with the Indenture and this Resolution and not substantially adverse to the Authority as may be approved by the Authorized Official executing the same on behalf of the Authority. The approval of any such changes by such Authorized Official and the determination by such Authorized Official that no such change is substantially adverse to the Authority shall be conclusively evidenced by the execution of the Bond Purchase Agreement by such Authorized Official. The price for and terms of the Series 2017A/B Bonds and the sale thereof, all as provided in this Resolution, the Bond Purchase Agreement, the Certificate of Award, and the Twenty-Second Supplemental Indenture, are hereby approved and determined to be in the best interests of the Authority.

(c) Certificate of Award. Such sale and award shall be further evidenced by the Certificate of Award executed by an Authorized Official. The terms of the Series 2017A/B Bonds approved in the Certificate of Award shall be incorporated into the Twenty-Second Supplemental Indenture. The Certificate of Award, subject to the restrictions set forth herein, shall: (i) with respect to each series or subseries of the Series 2017A/B Bonds, specify the aggregate principal amount, the purchase price, the first Interest Payment Dates, the interest rate or rates, the principal retirement dates, the mandatory sinking fund requirements (if any), the redemption dates, and the redemption prices thereof; (ii) specify whether a municipal bond insurance policy, letter of credit, or other credit or liquidity facility shall be obtained with respect to the Series 2017A/B Bonds and, if so, from whom and on what terms; (iii) specify the amount, if any, of the Series 2017A Debt Service Reserve Requirement and the Series 2017B Debt Service Reserve Requirement and determine whether it shall be met entirely with (A) cash and Permitted Investments (as defined in the Indenture); (B) a Qualified Reserve Credit Facility (as defined in the Indenture); or (C) a specified combination of (A) and (B); and (iv) include

any additional information that may be required or permitted to be stated therein by the terms of this Resolution and the Bond Purchase Agreement.

(d) Authorization of Bond Insurance and Qualified Reserve Credit Facilities. The submission of any applications to: (i) recognized providers of municipal bond insurance requesting the issuance of one or more municipal bond insurance policies to insure the Authority's obligation to make payments of principal of and interest on the Series 2017A/B Bonds, and (ii) potential providers of Qualified Reserve Credit Facilities, is hereby ratified and approved. The Authorized Officials are, and each of them is, hereby authorized to specify in the Certificate of Award that the Authority shall accept one or more commitments for insurance from such providers, and one or more commitments for a Qualified Reserve Credit Facility. There is hereby authorized to be paid from the moneys deposited in the Series 2017A Costs of Issuance Subaccount such amount as is required to pay the premium and expenses for such insurance policies and Qualified Reserve Credit Facilities relating to the Series 2017A Bonds. There is hereby authorized to be paid from the moneys deposited in the Series 2017B Costs of Issuance Subaccount such amount as is required to pay the premium and expenses for such insurance policies and Qualified Reserve Credit Facilities relating to the Series 2017B Bonds. The Authorized Officials are, and each of them is, hereby further authorized to enter into a reimbursement agreement with the provider of any Qualified Reserve Credit Facility to provide for the Authority's reimbursement of the provider for any amounts drawn under the Qualified Reserve Credit Facility in a manner consistent with the Indenture. Any determination of the Authorized Officials under this paragraph shall be based on the written advice of the Financial Advisor.

(e) Certificates. The Authorized Officials are, and each of them is, authorized and directed, in their official capacities, to execute and deliver to the Series 2017A/B Original Purchasers the certificates required by the Bond Purchase Agreement to be executed on behalf of the Authority.

(f) Delivery of Bonds. The Authorized Officials are, and each of them is, authorized and directed to make the necessary arrangements with the Series 2017A/B Original Purchasers to establish the date, location, procedure and conditions for the delivery of the Series 2017A/B Bonds to the Series 2017A/B Original Purchasers. The Authorized Officials are, and each of them is, further authorized and directed to make the necessary arrangements for the printing of the Series 2017A/B Bonds, and the execution, authentication and delivery of the Series 2017A/B Bonds to DTC for the accounts of the Series 2017A/B Original Purchasers in accordance with this Resolution and the Indenture, and upon the receipt of payment of the purchase price, to cause such amount to be applied in accordance with the terms and provisions of this Resolution and the Indenture.

Section 5. Allocation of Proceeds of the Series 2017A/B Bonds; Tax Covenants.

(a) Allocation of Proceeds of the Series 2017A/B Bonds. The proceeds from the sale of the Series 2017A/B Bonds shall be allocated, deposited and credited for

the purposes approved in this Resolution and as specified in the Twenty-Second Supplemental Indenture.

(b) Tax Covenants. The Board authorizes the Authorized Officials to approve the tax covenants, authorizations and agreements necessary to achieve and maintain the tax-exempt status of the Series 2017A/B Bonds.

Section 6. Twenty-Second Supplemental Indenture and Other Documents. The Authorized Officials are, and each of them is, authorized in connection with the issuance of the Series 2017A/B Bonds, to execute, acknowledge and deliver in the name of and on behalf of the Authority, the Twenty-Second Supplemental Indenture, substantially in the form thereof submitted to the Authority at or prior to this meeting, but with such changes therein as may be permitted by the Indenture and this Resolution and approved by the Authorized Officer executing the document on behalf of the Authority. The approval of those changes shall be conclusively evidenced by the execution of the document by an Authorized Official.

The Authorized Officials and any other member, officer or employee of the Authority are each authorized to execute and deliver, on behalf of the Authority, such other certificates, documents and instruments related to the Series 2017A/B Bonds as are necessary in connection with the transactions authorized in this Resolution, and to do all other things required of them or the Authority pursuant to the Indenture, the Twenty-Second Supplemental Indenture, the Bond Purchase Agreement and this Resolution.

No covenant, agreement or obligation contained herein shall be deemed to be a covenant, agreement or obligation of any present or future member of the Board or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board nor any officer of the Authority executing the Series 2017A/B Bonds shall be liable personally thereon or be subject to any personal liability or accountability by reason of the issuance thereof. No member of the Board or officer, employee, agent or advisor of the Authority shall incur any personal liability with respect to any other action taken by him pursuant to this Resolution or the Indenture or any other document authorized by this Resolution, provided such member, officer, employee, agent or advisor acts in good faith.

Section 7. Official Statement; Continuing Disclosure. The Authorized Officials shall cause to be prepared and issued on behalf of the Authority, an official statement (the "Official Statement") relating to the original issuance of the Series 2017A/B Bonds. The Authorized Officials are, and each of them is, authorized to execute the Official Statement on behalf of the Authority, which shall be in substantially the form of the Official Statement submitted to the Authority at this meeting, with such changes as the Authorized Official who executes it may approve, the execution thereof on behalf of the Authority by an Authorized Official to be conclusive evidence of such authorization and approval (including approval of any such changes), and copies thereof are hereby authorized to be prepared and furnished to the Series 2017A/B Original Purchasers for distribution to prospective purchasers of the Series 2017A/B Bonds and other interested persons. The preliminary Official Statement, shall be "deemed substantially final" by the

Authority within the meaning of Rule 15c2-12 of the Securities Exchange Commission, subject to completion as provided below.

The distribution by the Authority and by the Series 2017A/B Original Purchasers of the preliminary Official Statement and the Official Statement, in such form and with any changes as may be approved in writing by an Authorized Official, is hereby authorized and approved.

The Authority shall make sufficient copies of the Official Statement, with any supplements, available to the Series 2017A/B Original Purchasers to sell book entry interests in the Series 2017A/B Bonds, and will provide copies as appropriate to the Municipal Securities Rulemaking Board through its Electronic Municipal Market Access website at www.emma.msrb.org.

The Authorized Officials are each hereby authorized to furnish such information, to execute such instruments and to take such other action in cooperation with the Series 2017A/B Original Purchasers as may be reasonably requested to qualify the Series 2017A/B Bonds for offer and sale under the Blue Sky or other securities laws and regulations and to determine their eligibility for investment under the laws and regulations of such states and other jurisdictions of the United States of America as may be designated by the Series 2017A/B Original Purchasers; provided, however, that the Authority shall not be required to register as a dealer or broker in any such state or jurisdiction or become subject to the service of process in any jurisdiction in which the Authority is not now subject to such service.

The Authorized Officials are each hereby further authorized: (i) to supplement and complete the "deemed substantially final" preliminary Official Statement by affixing thereto or inserting therein information to identify the Series 2017A/B Original Purchasers and to specify the final principal amount, interest rates and redemption provisions of the Series 2017A/B Bonds, the price of the Series 2017A/B Bonds to the general public, any credit enhancement provisions with respect to the Series 2017A/B Bonds and any change in ratings of the Series 2017A/B Bonds resulting from such credit enhancement, and such other information as is necessary to supplement and complete the Official Statement with the approved and agreed upon terms of Series 2017A/B Bonds, and (ii) to make such other changes to the preliminary Official Statement or the Official Statement as are, in the judgment of an Authorized Official, necessary and appropriate in order to make the preliminary Official Statement or the Official Statement not materially misleading and to comply with applicable securities laws or otherwise to enable the Authority to fulfill its obligations regarding the preliminary Official Statement or the Official Statement under the Bond Purchase Agreement.

The Authority hereby covenants and agrees that it will comply with and carry out all of the provisions of the Continuing Disclosure Agreement. Notwithstanding any other provision of this Resolution or the Indenture, failure of the Authority to comply with the Continuing Disclosure Agreement shall not be considered an Event of Default; however, any Holder of Series 2017A/B Bonds may, and the Trustee may (and, at the request of the Holders of at least 25% in aggregate principal amount of Outstanding

Series 2017A/B Bonds, shall) take such actions as may be necessary and appropriate, including seeking mandamus or specific performance by court order, to cause the Authority to comply with its obligations under this paragraph. The Authorized Officials are, and each of them is, hereby authorized and directed to execute and deliver the Continuing Disclosure Agreement in substantially the form submitted to the Authority at or prior to this meeting with such changes therein as may be approved by the officer executing the Continuing Disclosure Agreement. The approval of those changes shall be conclusively evidenced by the execution of the Continuing Disclosure Agreement by an Authorized Official.

Section 8. General. The appropriate officers and employees of the Authority will do all things necessary and proper to implement and carry out the orders and agreements set forth or approved in this Resolution for the proper fulfillment of the purposes thereof. The Authority shall furnish to the Series 2017A/B Original Purchasers of the Series 2017A/B Bonds a true and certified transcript of all proceedings relating to the authorization and issuance of the Series 2017A/B Bonds along with other information as is necessary or proper with respect to the Series 2017A/B Bonds.

Section 9. Multiple Series. Notwithstanding anything herein to the contrary, each of the Series 2017A Bonds and the Series 2017B Bonds may be issued in one or more separate series or subseries, each bearing a distinctive designation, provided that the Series 2017A/B Bonds of all series in the aggregate, must satisfy the requirements and comply with the restrictions of this Resolution and the Indenture. Separate series and subseries of Series 2017A/B Bonds may be issued at the same or different times and so may have different dates of issuance. The Series 2017A/B Bonds of each series and subseries shall be designated as provided in the applicable Certificate of Award. A separate Certificate of Award may be delivered for each series or subseries, and each reference in this Resolution to the Certificate of Award shall refer to each and all such Certificates of Award. A separate Supplemental Trust Indenture may be entered into for each series or subseries, and each reference in this Resolution to the Twenty-Second Supplemental Indenture shall refer to each and all such Supplemental Trust Indentures, but any Supplemental Trust Indenture subsequent to the Twenty-Second Supplemental Indenture shall bear a different designation. A separate Bond Purchase Agreement and Continuing Disclosure Agreement may be entered into for each series or subseries, and each reference in this Resolution to the Bond Purchase Agreement or to the Continuing Disclosure Agreement shall refer to each and all such Bond Purchase Agreements or Continuing Disclosure Agreements, respectively. A separate Official Statement may be prepared for each series or subseries, and each reference in this Resolution to the Official Statement shall refer to each and all such Official Statements.

Section 10. Effective Date. This Resolution shall take effect immediately.

Secretary to the Board of Directors

Presented and Adopted: January 5, 2017

SUBJECT: Approval to Execute Option Year One of Contract No. 15-PR-WWT-53B, PVS Technology

**#17-01
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY**

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on January 5, 2017 upon consideration of a joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Option Year One of Contract No. 15-PR-WWT-53B, PVS Technology.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Option Year One of Contract No. 15-PR-WWT-53B, PVS Technology. The purpose of the option is to supply and deliver liquid ferric chloride to DC Water's Blue Plains Advanced Wastewater Treatment Facility. The option amount is \$1,443,487.50.

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

GOODS AND SERVICES CONTRACT OPTION YEAR

**FERRIC CHLORIDE
(Joint Use)**

Approval to exercise option year one (1) for the supply and delivery of Ferric Chloride in the amount of \$1,443,487.50.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: PVS Technology 10900 Harper Avenue Detroit, MI 48213	SUBS: N/A	PARTICIPATION: N/A
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$1,447,500.00
Original Contract Dates:	01-10-2016—01-09-2017
No. of Option Years in Contract:	4
Option Year 1 Value:	\$1,443,487.50
Option Year 1 Dates:	01-10-2017—01-09-2018

Purpose of the Contract:

This contract is to supply and deliver liquid ferric chloride to DC Water’s Blue Plains Advanced Wastewater Treatment Facility. Ferric chloride removes phosphorous from wastewater in the plant’s primary and secondary treatment stages, removes odor-causing compounds, and works with a polymer to coagulate and remove suspended solids.

Contract Scope:

The product provided under the contract is a 40% ferric chloride solution in water. Due to its critical importance and to ensure supply security, supply was awarded to two companies with independent supply chains. 70% of DC Water’s requirements was awarded to Carter & Carter, and 30% was awarded to PVS Technology. Blue Plains is projected to consume approximately 23.5 million pounds of the solution during option year 1 period of the contract – about the same as was consumed in FY16. Accordingly, 7.05 million pounds will be supplied by PVS under option year 1 of this contract, and 16.45 million pounds will be delivered by Carter & Carter during option year 1 of their contract.

Spending Previous Year:

Cumulative Contract Value:	01-10-2016 to 01-09-2017: \$1,447,500.00
Cumulative Contract Spending:	01-10-2016 to 11-20-2016: \$906,910.62

Contractor’s Past Performance:

According to the COTR, the Contractor’s quality of product and services, timeliness of deliverables; conformance to DC Water’s policies, procedures and contract terms; and invoicing all meet expectations and requirements.

No LBE/LSBE participation.

PROCUREMENT INFORMATION

Contract Type:	Good and Services	Award Based On:	Best Value
Commodity:	Ferric Chloride	Contract Number:	15-PR-WWT-53B
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Operating	Department:	Wastewater Treatment
Project Area:	Blue Plains	Department Head:	Salil M. Kharkar


ESTIMATED USER SHARE INFORMATION

User - Operating	Share %	Dollar Amount
District of Columbia	41.67%	\$601,501.24
Washington Suburban Sanitary Commission	43.21%	\$623,730.95
Fairfax County	10.45%	\$150,844.44
Loudoun Water	4.02%	\$58,028.20
Other (PI)	0.65%	\$9,382.67
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$1,443,487.50

 12/7/16
 Akile Tesfaye Date
 Assistant General Manager,
 Support Services

 12/7/16
 Dan Bae Date
 Director of Procurement

 12/7/16
 Mark Kim Date
 Chief Finance Officer

 12/23/16
 George S. Hawkins Date
 General Manager

Presented and Adopted: January 5, 2017

SUBJECT: Approval to Execute Option Year One of Contract No. 15-PR-WWT-53A, Carter & Carter Enterprises Inc.

**#17-02
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY**

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on January 5, 2017 upon consideration of a joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Option Year One of Contract No. 15-PR-WWT-53A, Carter & Carter Enterprises Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Option Year One of Contract No. 15-PR-WWT-53A, Carter & Carter Enterprises Inc. The purpose of the option is to supply and deliver liquid ferric chloride to DC Water's Blue Plains Advanced Wastewater Treatment Facility. The option amount is \$3,281,775.

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

GOODS AND SERVICES CONTRACT OPTION YEAR

**FERRIC CHLORIDE
(Joint Use)**

Approval to exercise option year one (1) for the supply and delivery of Ferric Chloride in the amount of \$3,281,775.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Carter & Carter Enterprises Inc. 212 Van Buren Street, NW Washington, D.C. 20012 LSBE	SUBS: N/A	PARTICIPATION: N/A
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$3,325,000.00
Original Contract Dates:	01-10-2016—01-09-2017
No. of Option Years in Contract:	4
Option Year 1 Value:	\$3,281,775.00
Option Year 1 Dates:	01-10-2017—01-09-2018

Purpose of the Contract:

This contract is to supply and deliver liquid ferric chloride to DC Water’s Blue Plains Advanced Wastewater Treatment Facility. Ferric chloride removes phosphorous from wastewater in the plant’s primary and secondary treatment stages, removes odor-causing compounds, and works with a polymer to coagulate and remove suspended solids.

Contract Scope:

The product provided under the contract is a 40% ferric chloride solution in water. Due to its critical importance and to ensure supply security, supply was awarded to two companies with independent supply chains. 70% of DC Water’s requirements was awarded to Carter & Carter, and 30% was awarded to PVS Technology. Blue Plains is projected to consume approximately 23.5 million pounds of the solution during option year 1 period of the contract – about the same as was consumed in FY16. Accordingly, 16.45 million pounds will be supplied by Carter & Carter under option year 1 of this contract, and 7.05 million pounds will be delivered by PVS during option year 1 of their contract.

Spending Previous Year:

Cumulative Contract Value:	01-10-2016 to 01-09-2017: \$3,325,000.00
Cumulative Contract Spending:	01-10-2016 to 11-30-2016: \$3,324,571.55

Contractor’s Past Performance:

According to the COTR, the Contractor’s quality of product and services, timeliness of deliverables; conformance to DC Water’s policies, procedures and contract terms; and invoicing all meet expectations and requirements.

PROCUREMENT INFORMATION

Contract Type:	Good and Services	Award Based On:	Best Value
Commodity:	Ferric Chloride	Contract Number:	15-PR-WWT-53A
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Operating	Department:	Wastewater Treatment
Project Area:	Blue Plains	Department Head:	Salil M. Kharkar

ESTIMATED USER SHARE INFORMATION

User - Operating	Share %	Dollar Amount
District of Columbia	41.67%	\$1,367,515.64
Washington Suburban Sanitary Commission	43.21%	\$1,418,054.98
Fairfax County	10.45%	\$342,945.49
Loudoun Water	4.02%	\$131,927.36
Other (PI)	0.65%	\$21,331.54
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$3,281,775.00

 12/7/14
 Akile Tesfaye Date
 Assistant General Manager,
 Support Services

 12/7/16
 Dan Bae Date
 Director of Procurement

 12/7/16
 Mark Kim Date
 Chief Finance Officer

 12/23/16
 George S. Hawkins Date
 General Manager

Presented and Adopted: January 5, 2017

SUBJECT: Approval to Execute Contract No. DCFA #458-WSA, World Water Works, Inc.

**#17-03
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY**

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on January 5, 2017 upon consideration of a joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Contract No. DCFA #458-WSA, World Water Works, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. DCFA #458-WSA, World Water Works, Inc. The purpose of the contract is to provide professional services associated with commissioning, harvesting and providing anammox seed sludge and provisions for operational support for the Filtrate Treatment Facility at Blue Plains. The contract amount is \$1,395,150.

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

ENGINEERING SERVICES:

**Filtrate Treatment Facility Deammonification Commissioning Services
(Joint Use)**

Approval to execute an architectural and engineering services contract for \$1,395,150.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
World Water Works, Inc. 4000 SW 113 th Street, Oklahoma City, OK 73173		

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	\$1,395,150.00
Contract Time:	553 Days (1 Year, 7 Months)
Anticipated Contract Start Date (NTP):	04-28-2017
Anticipated Contract Completion Date:	11-02-2018

Purpose of the Contract:

To provide professional services associated with commissioning, harvesting and providing anammox seed sludge and provisions for operational support for the Filtrate Treatment Facility (FTF) at DC Water Blue Plains Advanced Wastewater Treatment Plant (Blue Plains AWTP) to treat high-ammonia reject water from the dewatering of digested biosolids.

This is a sole-source contract to World Water Works as the exclusive provider of the DEMON[®] patented process in North America. As such, there are no subcontractors or other vendors providing support services.

Contract Scope:

- Prepare a commissioning plan.
- Provide pre-start-up commissioning activities including training DC Water's operations and process control staff in advance of the scheduled start-up for the FTF system.
- Harvest and deliver anammox seed sludge from multiple facilities in Europe to Blue Plains AWTP for start-up of the new FTF project.
- Provide start-up commissioning activities including providing an experienced deammonification operator for commissioning all six reactors.

PROCUREMENT INFORMATION

Contract Type:	Lump Sum	Award Based On:	Sole Source
Commodity:	Engineering Services	Contract Number:	DCFA #458-WSA
Contractor Market:	Sole Source		

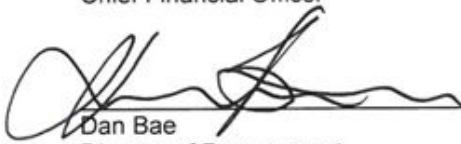
BUDGET INFORMATION

Funding:	Capital	Department:	Wastewater Engineering
Service Area:	Waste Water	Department Head:	Diala Dandach
Project:	EE		

USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.22%	\$ 575,080.83
Washington Suburban Sanitary Commission	45.84%	\$ 639,536.76
Fairfax County	8.38%	\$ 116,913.57
Loudoun County & Potomac Interceptor	4.56%	\$ 63,618.84
Total Estimated Dollar Amount	100.00%	\$ 1,395,150.00


 _____, 12/7/16
 Date
 Mark Kim
 Chief Financial Officer


 _____, 12/7/16
 Date
 Dan Bae
 Director of Procurement


 _____, 12-7-16
 Date
 Leonard R. Benson
 Chief Engineer


 _____, 12-23-16
 Date
 George S. Hawkins
 General Manager

Presented and Adopted: January 5, 2017

**SUBJECT: Approval to Execute Supplemental Agreement No. 04 of
Contract No. DCFA #429-WSA, Arcadis District of
Columbia, PC**

**#17-04
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY**

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on January 5, 2017 upon consideration of a joint use matter, decided by a vote of __() in favor and __() opposed to execute Supplemental Agreement No. 04 of Contract No. DCFA #429-WSA, Arcadis District of Columbia, PC

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. DCFA #429-WSA, Arcadis District of Columbia PC. The purpose of the contract is to provide onsite Construction Management Services for the Biosolids Management Program. The supplemental agreement amount is \$1,297,015.

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

**ENGINEERING SERVICES SUPPLEMENTAL AGREEMENT:
Construction Management-Biosolids Program Management
(Joint Use)**

Approval to execute Supplemental Agreement No. 04 for \$1,297,015. The modification exceeds the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Arcadis District of Columbia, PC 7550 Teague Road Suite 210 Hanover, MD 21076	Delon Hampton & Associates Washington, DC MBE	17.3%
	HAKS Silver Spring, MD MBE	4.7%
	JDOS Washington, DC WBE	4.3%
	O'Brien & Gere Engineers, Inc. Bowie, MD	4.7%

DESCRIPTION AND PURPOSE

Original Contract Value:		\$28,385,874.00
Value of this Supplemental Agreement:		\$ 1,297,015.00
Cumulative SA Value, including this SA:		\$ 8,389,815.00
Current Contract Value, Including this SA:		\$37,075,689.00
Original Contract Time:	1,249 Days	(3 Years, 5 Months)
Time extension, this SA:	181 Days	
Total SA contract time extension:	1,008 Days	(2 Years, 9 Months)
Contract Start Date:	04-26-2011	
Contract Completion Date:	06-30-2017	

Purpose of the Contract:

To provide onsite Construction Management Services for the Biosolids Management Program. This work is not required by a Consent Decree.

Original Contract Scope:

- To provide construction management services for three construction contracts that are part of the Biosolids Management Program: the Main Process Train (thermal hydrolysis/anaerobic digestion); Combined Heat & Power; and Final Dewatering; which are being delivered via design build, design-build-operate and design-bid-build delivery methods, respectively.

Previous Supplemental Agreement Scope:

- Provide extension of construction management services to accommodate changes in the sequence and scope of construction. Changes include; upgrades to the waste liquor return pump station, existing lime stabilization system enhancements sequence, alterations to the odor control chemical feed system for compatibility with hydrochloric acid and for compatibility with foul air loading.

Current Supplemental Agreement Scope:

- Extend the construction management services to accommodate time extension for construction and commissioning of the new system in addition to closing out of the 3 projects Main Process Train (MPT), Final Dewatering Facility (FDF) and Combined Heat & Power (CHP).

PROCUREMENT INFORMATION

Contract Type:	Cost Plus Fixed Fee	Award Based On:	Highest Ranking Score
Commodity:	Engineering Services	Contract Number:	DCFA #429-WSA
Contractor Market:	Open Market		

BUDGET INFORMATION


Funding:	Capital	Department:	Wastewater Engineering
Service Area:	Wastewater	Department Head:	Diala Dandach
Project:	XA		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.22%	\$ 534,629.58
Washington Suburban Sanitary Commission	45.84%	\$ 594,551.68
Fairfax County	8.38%	\$ 108,689.86
Loudoun County & Potomac Interceptor	4.56%	\$ 59,143.88
Total Estimated Dollar Amount	100.00%	\$ 1,297,015.00

 , 12/7/16
Date

Mark Kim
Chief Financial Officer

 , 12/8/16
Date

Dan Bae
Director of Procurement

 , 12-8-16
Date

Leonard R. Benson
Chief Engineer

 , 12-23-16
Date

George S. Hawkins
General Manager

Presented and Adopted: January 5, 2017

**SUBJECT: Approval to Execute Supplemental Agreement No. 05 of
Contract No. DCFA #441, PEER Consultants, PC**

**#17-05
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY**

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on January 5, 2017 upon consideration of a non-joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Supplemental Agreement No. 05 of Contract No. DCFA #441, PEER Consultants, PC.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Supplemental Agreement No. 05 of Contract No. DCFA #441, PEER Consultants, PC. The purpose of the supplemental agreement is to provide start-up, operations and maintenance engineering services. The work will be assigned as task orders on an as needed basis. The supplemental agreement amount is \$7,962,816.44.

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

ENGINEERING SERVICES SUPPLEMENTAL AGREEMENT:

**Operations and Maintenance Assistance Program IV
(Joint Use)**

Approval to execute Supplemental Agreement No. 05 for \$7,962,816.44. The modification exceeds the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
PEER Consultants, PC 409 12 th Street, SW Suite 603 Washington, DC 20024 (WBE)	Delon Hampton & Associates Washington, DC	MBE 11.3%
	E.B. Advanced, PC Washington, DC	MBE 16.8%
	AECOM Arlington, VA	10.6%

DESCRIPTION AND PURPOSE

Original Contract Value:	\$17,987,367.00
Value of this Supplemental Agreement:	\$ 7,962,816.44
Cumulative SA Value, including this SA:	\$10,126,174.17
Current Contract Value, Including this SA:	\$28,113,541.17
Original Contract Time:	1825 Days (5 Years, 0 Months)
Time extension, this SA:	1102 Days
Total SA contract time extension:	1282 Days (3 Years, 6 Months)
Contract Start Date:	06-29-2011
Contract Completion Date:	12-31-2019

Purpose of the Contract:

To provide start-up, operations and maintenance engineering services. The work will be assigned as task orders on an as needed basis.

Original Contract Scope:

- Generate documents to fulfill EPA mandated requirements
- Develop equipment maintenance requirements and documentation
- Develop Standard Operating Procedures (SOPs).
- Provide services for Document Management

Previous Supplemental Agreement Scope:

- Provide the Department of Wastewater Treatment with Operations, commissioning, training, Maximo support and reliability maintenance support

Current Supplemental Agreement Scope:

- **Asset management Support**
 - Perform Asset Integration for all new assets
 - Perform Parts Integration for all assets through service manual reviews.
 - Develop Work Order and Preventive Maintenance (WO/PM) documents including Job Plans and schedules for PM's.

- **Operations support**
 - Start-Up Assistance on capital projects including monitoring of Operational Demonstrations.
 - Review of SOPs
 - Review of Operations and Maintenance (O&M) manuals developed or updated by others.
 - Generate documents to fulfill EPA mandated requirements
 - Additional support as required.

- **Engineering support**
 - Review of Service Manuals in accordance with the Contract specifications
 - Coordination of training schedules with the Construction Management teams
 - Perform Document Management, support for contracts' close-out of and final upload into the Livelink system.

PROCUREMENT INFORMATION

Contract Type:	Cost Plus Fixed Fee	Award Based On:	Highest Ranking Score
Commodity:	Engineering Services	Contract Number:	DCFA #441
Contractor Market:	Open Market		

BUDGET INFORMATION

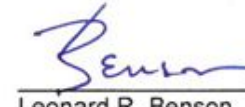
Funding:	Capital and Operating	Department:	Wastewater Engineering
Service Area:	Maintenance	Department Head:	Diala Dandach
Project:	BG, BI, TZ, YD, UC, BV, E8, E9, OE, XA, EE, DWT		

USER SHARE INFORMATION


User Capital	Share %	Dollar Amount
District of Columbia	41.22%	\$3,117,392.94
Washington Suburban Sanitary Commission	45.84%	\$3,466,795.06
Fairfax County	8.38%	\$ 633,764.02
Loudoun County & Potomac Interceptor	4.56%	\$ 344,864.43
Total Estimated Dollar Amount	100.00%	\$7,562,816.44

User Operating	Share %	Dollar Amount
District of Columbia	41.67%	\$ 166,680.00
Washington Suburban Sanitary Commission	43.21%	\$ 172,840.00
Fairfax County	10.45%	\$ 41,800.00
Loudoun County & Potomac Interceptor	4.67%	\$ 18,680.00
Total Estimated Dollar Amount	100.00%	\$ 400,000.00

For:  _____ 12/8/16
 Mark Kim
 Chief Financial Officer
 Date

 _____ 12-8-16
 Leonard R. Benson
 Chief Engineer
 Date

 _____ 12/8/16
 Dan Bae
 Director of Procurement
 Date

 _____ 12-23-16
 George S. Hawkins
 General Manager
 Date

Presented and Adopted: January 5, 2017
SUBJECT: Approval to Execute Contract No. 150210,
Anchor Construction Corporation

#17-06
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on January 5, 2017 upon consideration of a non-joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Contract No. 150210, Anchor Construction Corporation.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. 150210, Anchor Construction Corporation. The purpose of the contract is to provide the final design and construction of Division RC-A-Rock Creek Project A Green Infrastructure in support of the DC Clean Rivers Project. This work is required by a Consent Decree. The contract amount is \$26,841,393.50.

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

DESIGN-BUILD CONTRACT

**Division RC-A – Rock Creek Project A Green Infrastructure
(Non-Joint Use)**

Approval to execute a design-build contract for \$ 26,841,393.50

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Anchor Construction Corporation 2254 25th Pl. NE Washington, D.C. 20018	CBE Eligible Amounts: Total Eligible \$23,491,393.50 CBE* Total \$12,978,995.00	55%
(CBE)	See Attachment A for List of firms.	

*Based upon the Green Infrastructure (GI) Memorandum of Understanding with the District of Columbia, this contract shall utilize best efforts to maximize Certified Business Enterprise (CBE) participation, with a goal that at least 50% of the dollar amount of this contract be awarded to CBEs. No Federal funding (i.e. EPA) will be used for this contract.

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	\$ 26,841,393.50
Contract Time:	1025 Days (2 Years, 10 Months)
Anticipated Contract Start Date:	01-31-2017
Anticipated Contract Completion Date:	11-22-2019
Proposal Due Date:	09-28-2016
Number of Firms Submitting Qualifications:	4
Number of Firms Shortlisted:	3

Purpose of the Contract:

Provide the final design and construction of Division RC-A – Rock Creek Project A Green Infrastructure in support of the DC Clean Rivers Project.

This work is required by a Consent Decree.

Contract Scope:

- Design and construct Green Infrastructure (GI) practices located in the public Right of Way (ROW) to manage 1.2" of rain falling on the equivalent of approximately twenty (20) impervious acres within the Rock Creek sewershed
- Perform Initial Maintenance Period for all constructed GI practices
- Construct the Green Infrastructure Challenge Parks located on Kansas Avenue NW
- Construct modification to combined sewer structure 46 located on Canal Road NW

Federal Grant Status:

- Construction Contract is not eligible for Federal grant funding assistance.

PROCUREMENT INFORMATION


Contract Type:	Fixed Price	Award Based On:	Best Value
Commodity:	Design and Construction	Contract Number:	150210
Contractor Market:	Open Market with CBE goal		


BUDGET INFORMATION

Funding:	Capital	Department:	DC Clean Rivers Project
Service Area:	Combined Sewer	Department Head:	Carlton Ray
Project:	DZ		

USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$26,841,393.50
Federal Funds	0.00%	\$ 0.00
Washington Suburban Sanitary Commission	0.00%	\$ 0.00
Fairfax County	0.00%	\$ 0.00
Loudoun County & Potomac Interceptor	0.00%	\$ 0.00
Total Estimated Dollar Amount	100.00%	\$26,841,393.50

 12/7/16
 Mark Kim Date
 Chief Financial Officer

 12/8/16
 Dan Bae Date
 Director of Procurement

 12-7-16
 Leonard R. Benson Date
 Chief Engineer

 12-23-16
 George S. Hawkins Date
 General Manager

DESIGN-BUILD CONTRACT 150210
Division RC-A – Rock Creek Project A Green Infrastructure

ATTACHMENT A
CBE CONTRACTOR LISTING

CONSULTANTS/ CONTRACTOR/ SUBCONTRONTRACTORS/ SUPPLIERS

	TYPE	AMOUNT:	PARTICIPATION:
Anchor Construction Corporation 2254 25th Pl. NE Washington, D.C. 20018	CBE	\$12,215,525	52.0%*
Commun-ET 1202 Savannah Street SE, Washington, DC 20032	CBE	\$469,828	2.0%
Tina Boyd & Associates 2126 Connecticut Ave, NW, #2 Washington, DC 20008	CBE	\$293,642	1.25%
CBE Total	CBE	\$12,978,995	55%

This is a design-build contract. As the design progresses and the scope of work is better defined, additional and alternate subcontractors and suppliers will be solicited by the Contractor to perform the work. The Contractor has committed to exercising its best efforts to meet or exceed the CBE objectives as the final construction needs are identified.

*Anchor, a CBE, will perform a minimum of 52% of the work and will utilize best efforts to meet or exceed the CBE objectives by involving other CBE firms or self-performing additional portions of the work, as the final construction needs are identified.

Presented and Adopted: January 5, 2017
SUBJECT: Approval to Execute Contract No. DCFA #478-WSA,
Rummel, Klepper & Kahl, LLP

#17-07
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on January 5, 2017 upon consideration of a non-joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Contract No. DCFA #478-WSA, Rummel, Klepper & Kahl, LLP.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. DCFA #478-WSA, Rummel, Klepper & Kahl, LLP. The purpose of the contract is to provide onsite construction management of Division RC-A-Rock Creek Project A (GI) and Division PR-A1-Potomac River Project A1(GI) DC Clean Rivers Project during construction contracts. The contract amount is \$3,467,419.

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

**ENGINEERING SERVICES
Rock Creek Project A and Potomac River Project A1 Green Infrastructure
(Non-Joint Use)**

Approval to execute an architectural and engineering services contract for \$3,467,419.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Rummel, Klepper & Kahl, LLP 300 M Street, SE, Suite 880 Washington, DC 20003	Legion Design Washington, DC	CBE* 15.2%
	Tina Boyd & Associates Washington, DC	CBE* 12.2%
	Hayat Brown, LLC Washington, DC	CBE* 24.7%
	Techno Consult Princeton, NJ	4.3%
	Steel City Safety New Stanton, PA	2.7%

*Based upon the GI Memorandum of Understanding with the District of Columbia, this contract shall utilize best efforts to maximize Certified Business Enterprise (CBE) participation, with a goal that at least 50% of the dollar amount of this contract is awarded to CBEs.

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed: \$3,467,419.00
 Contract Time: 1095 Days (3 Years)
 Anticipated Contract Start Date: 01-31-2017
 Anticipated Contract Completion Date: 01-31-2020
 Number of firms submitting proposals 5
 Other firms submitting proposals/qualification statements:
 ATCS, PLC *
 The Temple Group, Inc. *
 AMEC Foster Wheeler Environment & Infrastructure, Inc
 Belstar, Inc.

* Asterisk indicates short listed firm.

Purpose of the Contract:

To provide onsite construction management of Division RC-A – Rock Creek Project A (GI) and Division PR-A1 – Potomac River Project A1 (GI) DC Clean Rivers Project during construction contracts. To provide oversight of smaller site GI Challenge projects at Kansas Avenue, NW; Kennedy Street, NW; and Georgetown University.

This work is required by a Consent Decree.

Contract Scope:

Provide construction management, contract administration and resident engineering and inspection services to assist DC Water with Projects associated with the construction of Green Infrastructure (GI), including various bioretention and permeable pavement configurations, for the following:

- Rock Creek Project A (Division RC-A), consisting of the construction of GI in the public Right of Way (ROW) to manage 1.2" of rain falling on the equivalent of approximately twenty (20) impervious acres within the Rock Creek sewershed, and the modification to the combined sewer structure 46 located on Canal Road NW;
- Potomac River Project A1 (Division PR-A1), consisting of the construction of GI in the public ROW to manage 1.2" of rain falling on the equivalent of approximately ten (10) impervious acres within the Potomac sewershed;
- The Kansas Avenue Green Infrastructure Parks Project and the Kennedy Street Green Infrastructure Streetscape, consisting each of GI construction on two (2) impervious acres within the Rock Creek sewershed; and
- Georgetown University GI, consisting of GI construction on the Georgetown University campus on the equivalent of approximately two (2) impervious acres within the Potomac sewershed.

Provide field inspection services for the oversight of the construction work as well as oversight during the green infrastructure maintenance period for the RC-A and PR-A1 projects.

PROCUREMENT INFORMATION

Contract Type:	Cost Plus Fixed Fee	Award Based On:	Highest Ranking Score
Commodity:	Engineering Services	Contract Number:	DCFA - #478-WSA
Contractor Market:	Open Market with CBE goal		

BUDGET INFORMATION

Funding:	Capital	Department:	DC Clean Rivers Project
Service Area:	Combined Sewer Overflow	Department Head:	Carlton Ray
Project:	CZ, DZ		

USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$ 3,467,419.00
Federal Funds	0.00%	\$ 0.00
Washington Suburban Sanitary Commission	0.00%	\$ 0.00
Fairfax County	0.00%	\$ 0.00
Loudoun County & Potomac Interceptor	0.00%	\$ 0.00
Total Estimated Dollar Amount	100.00%	\$ 3,467,419.00

 , 12/7/16
 Mark Kim Date
 Chief Financial Officer

 , 12/8/16
 Dan Bae Date
 Director of Procurement

 , 12-7-16
 Leonard R. Benson Date
 Chief Engineer

 , 12-23-16
 George S. Hawkins Date
 General Manager

Presented and Adopted: January 5, 2017

**SUBJECT: Approval to Execute Additional Funding for Option Year
Four of Contract No. WAS-11-057-AA-SH, Business
Promotion Consultants, Inc.**

**#17-08
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY**

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on January 5, 2017 upon consideration of a non-joint use matter, decided by a vote of ___() in favor and ___() opposed to execute additional funding of Contract No. WAS-11-057-AA-SH, Business Promotion Consultants, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute additional funding of Contract No. WAS-11-057-AA-SH, Business Promotion Consultants, Inc. The purpose of the contract is to supply parts for water meters manufactured by Neptune and purchased through Business Process Consultants. The additional funding amount is \$300,000.

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

GOODS AND SERVICES CONTRACT MODIFICATION

**Neptune Meter Parts
(Non-Joint Use)**

Approval to add additional funding to Option Year Four (4) in the amount of \$300,000.00 to support Department of Customer Service's daily operations.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Business Promotion Consultants, Inc. 5028 Wisconsin Ave, NW, Suite 302 Washington, DC 20011 LSBE	SUBS: N/A	PARTICIPATION: N/A
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$150,000.00
Original Contract Dates:	11-07-2011 – 11-06-2012
No. of Option Years in Contract:	4
Option Year 1 Value:	\$100,000.00
Option Year 1 Dates:	11-07-2012 – 11-06-2013
Option Year 2 Value:	\$0.00
Option Year 2 Dates:	11-07-2013 – 11-06-2014
Option year 3 Value:	\$200,000.00
Option Year 3 Dates:	11-07-2014 – 11-06-2015
Option Year 4 Value:	\$100,000.00
Option Year 4 Dates:	11-07-2015 – 11-06-2016
Prior Modifications Value	\$250,000.00
Prior Modifications Dates:	08-28-2013 – 05-06-2017
This Modification Value:	\$300,000.00
This Modification Dates:	01-02-2017 to 05-06-2017

Purpose of the Contract:

This contract is to supply parts for water meters manufactured by Neptune and purchased through Business Process Consultants. The Department of Customer Service (CS) uses these parts to repair meters during daily meter maintenance operations. The parts may include unitized measuring elements (UMEs), registers, strainers, etc.

Reason for change:

The requested funding of \$300,000.00 is for meter parts to support a program to replace large water meters. In some instances the cost to replace a meter 6 inches or larger is prohibitive because of the location of the meter and the vault size. In these instances, we rebuild and calibrate the meter rather than replace the meter.

Spending Previous Year:

Cumulative Contract Value:	11-07-2011 to 05-06-2017: \$800,000.00
Cumulative Contract Spending:	11-07-2011 to 12-08-2016: \$734,403.86

Contractor's Past Performance:

According to the COTR, the Contractor's quality of workmanship; timeliness of deliverables; conformance to DC Water's policies, procedures and contract terms; and invoicing all meet expectations.

PROCUREMENT INFORMATION

Contract Type:	Firm Fixed	Award Based On:	Single Proposer
Commodity:	Goods and Services	Contract Number:	WAS-11-057-AA-SH
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Capital	Department:	Customer Service
Service Area:	Washington D.C. Customers	Department Head:	Tsedale Berhanu
Project:	EQP2350		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$300,000.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County	0.00%	\$0.00
Other (PI)	0.00%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$300,000.00

 12/12/16
 Date
 Charles Kiely
 Assistant General Manager,
 Customer Care and Operations

 12/8/16
 Date
 Dan Bae
 Director of Procurement

 12/12/16
 Date
 Mark Kim
 Chief Financial Officer

 12-23-16
 Date
 George S. Hawkins
 General Manager

Presented and Adopted: January 5, 2017

SUBJECT: Approval to Execute Option Year Four of Contract No. WAS-12-070-AA-SC, Business Promotion Consultants, Inc.

**#17-09
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY**

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on January 5, 2017 upon consideration of a non-joint use matter, decided by a vote of __() in favor and __() opposed to execute Option Year Four of Contract No. WAS-12-070-AA-SC, Business Promotion Consultants, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Option Year Four of Contract No. WAS-12-070-AA-SC, Business Promotion Consultants, Inc. The purpose of the contract is to provide meter lids for daily operations and to support DC Water's Automated Meter Reading (AMR) Replacement Program. The option amount is \$1,300,000.

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

GOODS AND SERVICES CONTRACT OPTION YEAR

**METER LIDS
(Non-Joint Use)**

Approval to exercise Option Year Four (4) for the supply of meter lids in the amount of \$1,300,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Business Promotion Consultants Inc. 5028 Wisconsin Ave, NW, Suite 302 Washington, DC 20011 LSBE	SUBS: N/A	PARTICIPATION: N/A
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$51,320.00
Original Contract Dates:	01-10-2013—01-09-2014
No. of Option Years in Contract	4
Option Year 1 Value:	\$80,000.00
Option Year 1 Dates:	01-10-2014—01-09-2015
Option Year 2 Value:	\$60,000.00
Option Year 2 Dates:	01-10-2015—01-09-2016
Option Year 3 Value:	\$50,000.00
Option Year 3 Dates:	01-10-2016—01-09-2017
Prior Modification Value:	\$578,867.10
Prior Modification Dates:	08-12-2013—01-09-2016
Option Year 4 Value:	\$1,300,000.00
Option Year 4 Dates:	01-10-2017—01-09-2018

Purpose of the Contract:

This contract is to provide meter lids for daily operations and to support DC Water’s Automated Meter Reading (AMR) Replacement Program. Meter lids are approximately 11”-21” diameter plastic discs that cover in-ground pits in which water meters are installed. Meter lids are replaced when found to be damaged or excessively worn during day-to-day meter maintenance operations. Up to 60% of meter lids are expected to be replaced as part of the AMR Replacement Program, where about 85,000 small meters and Meter Transmission Units (MTUs) will be replaced to support DC Water’s Advanced Meter Infrastructure.

Reason for change:

This modification is to exercise and fund Option Year 4 of the contract. The requested funding of \$1,300,000.00 is significantly higher than spending in previous years when new meter lids were purchased only for daily operations. This funding amount is sufficient to purchase the forecasted meter lid requirements for the Automated Meter Reading (AMR) Program and for daily operations.

DC Water negotiated approximately \$251,000 savings (17%) off of prior contract prices based on the size of the projected purchase, change in raw materials pricing, and change in manufacturing labor costs.

Spending Previous Year:

Cumulative Contract Value:	01-10-2013 to 01-09-2017: \$820,187.10
Cumulative Contract Spending:	01-10-2013 to 11-23-2016: \$589,384.00

Contractor’s Past Performance:

According to the COTR, the Contractor’s quality of workmanship; timeliness of deliverables; conformance to DC Water’s policies, procedures and contract terms; and invoicing all meet expectations.

PROCUREMENT INFORMATION

Contract Type:	Firm Fixed	Award Based On:	Single Proposer
Commodity:	Goods and Services	Contract Number:	WAS-12-070-AA-SC
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Capital	Department:	Customer Service
Service Area:	Washington D.C. Customers	Department Head:	Tsedale Berhanu
Project:	EQP2340		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$1,210,000.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County	0.00%	\$0.00
Other (PI)	0.00%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$1,210,000.00


BUDGET INFORMATION

Funding:	Capital	Department:	Customer Service
Service Area:	Washington D.C. Customers	Department Head:	Tsedale Berhanu
Project:	EQP2350		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$90,000.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County	0.00%	\$0.00
Other (PI)	0.00%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$90,000.00


 Charles Kiely Date 12/11/16
 Assistant General Manager, Customer Care and Operations


 Dan Bae Date 12/6/16
 Director of Procurement


 Mark Kim Date 12/7/16
 Chief Financial Officer


 George S. Hawkins Date 12/23/16
 General Manager

Presented and Adopted: January 5, 2017
SUBJECT: Approval to Execute Contract No. 17-PR-CCO-07, Mueller Systems

#17-10
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
D.C. WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("the Authority") at its meeting on January 5, 2017 upon consideration of a non-joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Contract No. 17-PR-CCO-07, Mueller Systems.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. 17-PR-CCO-07, Mueller Systems. The purpose of the contract is to provide 1.5-inch and 2-inch positive displacement meters to fulfill a requirement of their Automated Meter Reading (AMR) program. This program is to upgrade meter equipment to be compatible with DC Water's new Advanced Meter Infrastructure (AMI) system. The contract amount is \$1,700,000.

This Resolution is effective immediately.

Secretary to the Board of Directors

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

**GOODS AND SERVICES CONTRACT AWARD
1.5-Inch & 2-Inch Positive Displacement Meters
(Non-Joint Use)**

Approval to execute a contract for the supply and delivery of 1.5" and 2" positive displacement meters with a base year contract value of \$1,700,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Mueller Systems 10210 Statesville Blvd Cleveland, NC 27013	SUBS: N/A	PARTICIPATION: N/A
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DESCRIPTION AND PURPOSE

Base Year Contract Value:	\$1,700,000.00
Option Years:	2
Anticipated Contract Start Date:	01-15-2017
Anticipated Contract Completion Date:	01-14-2018
Bid Opening Date:	10-24-2016
Bids Received:	3
Bid Range:	\$1,699,657.00 -- \$2,372,028.00
Preference Price Reduction Awarded	\$100,000 reduction from bid amount for LSBE

Purpose of the Contract:

The Department of Customer Service (CS) has a need for 1.5-inch and 2-inch positive displacement meters to fulfill a requirement of their Automated Meter Reading (AMR) program. This program is to upgrade meter equipment to be compatible with DC Water's new Advanced Meter Infrastructure (AMI) system, and includes replacing old meters with new ones for residential customers in D.C. A supplier for smaller meters (5/8", 3/4" and 1") was selected in an earlier solicitation: this solicitation and contract was to select a supplier for 1.5" and 2" meters.

Supplier Selection:

Six suppliers were identified and contacted for this RFQ, and three responded with pricing for meters that meet DC Water's specifications and required delivery schedule. The RFQ did not require suppliers to perform any services beyond delivering meters, so suppliers were evaluated based on submitted pricing.

DC Water negotiated Best and Final Offer (BAFO) pricing with the suppliers. One among the 3 bidding suppliers is a LSBE, and its bid was evaluated based on the preference price reduction equaling a \$100,000 reduction in its final bid amount for LSBE. However, the reduced bid amount is still 9% more than the lowest bid. The supplier offering the lowest evaluated bid amount, Mueller Systems, was awarded the contract to supply of the subject water meters.

No LBE/LSBE participation.

PROCUREMENT INFORMATION


Contract Type:	Firm Fixed	Award Based On:	Lowest Price Offer
Commodity:	Goods and Services	Contract Number:	17-PR-CCO-07
Contractor Market:	Supplier Invitation, with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Capital	Department:	Customer Service
Service Area:	Washington D.C. Customers	Department Head:	Tsedale Berhanu
Project:	EQP2340 and EQP2350		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$1,700,000.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County	0.00%	\$0.00
Other (PI)	0.00%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$1,700,000.00


 Charles Kiely
 Assistant General Manager,
 Customer Care and Operations
 Date 12/16/16


 Dan Bae
 Director of Procurement
 Date 12/7/16


 Mark Kim
 Chief Financial Officer
 Date 12/7/16


 George S. Hawkins
 General Manager
 Date 12/23/16