



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
226th MEETING OF THE BOARD OF DIRECTORS
Thursday, December 1, 2016
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 November 3, 2016 Minutes**
- IV. Chairman's Overview**
- V. Committee Reports**
 1. DC Retail Water and Sewer Rates Committee (**Rachna Butani-Bhatt**)
 2. Joint Meeting of DC Retail Water and Sewer Rates/Finance and Budget Committees (**Rachna Butani-Bhatt**)
 3. Finance and Budget Committee (**By Exception**)
 4. Environmental Quality and Sewerage Services Committee (**David Lake**)
 5. Joint Meeting of the Environmental Quality and Sewerage Services/Water Quality and Water Services Committees (**David Lake**)
 6. Water Quality and Water Services Committee (**Rachna Butani**)
 7. Audit Committee (**Nicholas Majett**)
- VI. CEO/General Manager's Report (CEO/General Manager George Hawkins)**
- VII. Summary of Contracts (FYI)**
- VIII. Consent Items (Joint Use)**
 1. Approval of Fiscal Year 2017-2026 Ten Year Financial Plan – Resolution No. 16-92 (Recommended by Finance and Budget Committee 11/15/16)
 2. Approval of Proposed Fiscal Year 2017-2026, Capital Improvement Program – Resolution No. 16-93 (Recommended by the Environmental Quality and Sewerage Services/Water Quality and Water Services Committees 11/17/16)
 3. Approval of Proposed Fiscal Year 2018 Operating Budget – Resolution No. 16-94 (Recommended by Finance and Budget Committee 11/15/16)
 4. Approval of Intent to Reimburse Capital Expenditures with Proceeds of a Borrowing – Resolution No. 16-95 (Recommended by Finance and Budget Committee 11/15/16)
 5. Approval to Execute Option Year Two of Contract No. WAS-12-066-AA-RE, Polydyne, Inc. – Resolution No. 16-96 (Recommended by Environmental Quality and Sewerage Services Committee 11/17/16)

6. Approval to Execute Option Year One of Contract No. 15-PR-DWT-35, Polydyne, Inc. - Resolution No. 16-97 (Recommended by Environmental Quality and Sewerage Services Committee 11/17/16)
7. Approval to Execute Contract No. 16-PR-DMS-43, Electric Motor & Contracting (EMC) - Resolution No. 16-98 (Recommended by Environmental Quality and Sewerage Services Committee 11/17/16)
8. Approval to Execute Supplemental Agreement No. 01, Contract No. DCFA #428-WSA, AECOM – Resolution No. 16-99 (Recommended by Environmental Quality and Sewerage Services Committee 11/17/16)
9. Approval to Execute Contract No. DCFA #4733-WSA, Hazen and Sawyer – Resolution No. 16-100 (Recommended by Environmental Quality and Sewerage Services Committee 11/17/16)

IX. Consent Items (Non-Joint Use)

1. Approval to Execute Contract No. 15-PR-CCO-50, Fasteners Rx, Inc. – Resolution No. 16-101 (Recommended by Water Quality and Water Services Committee 11/17/16)
2. Approval to Execute Contract No. 15-PR-CCO-59, Vertex – Resolution No. 16-102 (Recommended by Water Quality and Water Services Committee)
3. Approval of Customer Assistance Program (CAP) Expansion to Provide a 50 Percent Credit of the Monthly Clean Rivers IAC (CRIAC) Billed to Eligible Households and Tenants – Resolution No. 16-103 (Recommended by the DC Retail Water and Sewer Rates and Finance and Budget Committees 11/15/16)

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)

- Finance and Budget Committee (via conference call) - Wednesday, December 14th @ 11:30 a.m.
- Environmental Quality and Sewerage Services Committee – Thursday, December 15th @ 9:30 a.m.
- Water Quality and Water Services Committee (via conference call) – Thursday, December 15th @ 11:00 a.m.

REMINDER: Board Retreat – Thursday, December 15th 5:30 – 9:00 p.m., and Friday, December 16th 8:00 a.m. – 4:00 p.m.



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS**

**225th MEETING
THURSDAY, NOVEMBER 3, 2016**

MINUTES

Present Directors

Matthew T. Brown, Chairman, District of Columbia
Nicholas A. Majett, Prince George's County
Ellen Boardman, District of Columbia
Timothy Firestine, Montgomery County
James Patteson, Fairfax County
Bradley Frome, Prince George's County
Howard Gibbs, Alternate for Vacant Principal, District of Columbia
Rachna Butani Bhatt, District of Columbia
Elisabeth Feldt, Montgomery County
Obiora "Bo" Menkiti, District of Columbia

Present Alternate Director

Rev. Kendrick Curry, District of Columbia
David Lake, Montgomery County
Ana Harvey, District of Columbia
Adam Ortiz, Prince George's County
Bonnie Kirkland, Montgomery County

DC Water Staff

George S. Hawkins, CEO/General Manager
Henderson J. Brown, General Counsel
Mark Kim, Chief Financial Officer
Linda R. Manley, Board Secretary

Chairman Brown called the 225th Meeting of the District of Columbia Water and Sewer Authority's Board of Directors to order at 9:33 a.m. Ms. Manley called the roll and a quorum was established.

Approval of the October 6, 2016 Minutes

Chairman Brown asked for a motion to approve the October 6, 2016 minutes. The motion to approve the October 6, 2016 minutes was moved, seconded, and unanimously approved by the Board of Directors.

Chairman's Overview

Chairman Brown stated that his remarks would be brief because the Board was scheduled to participate in the budget workshop following the meeting. He indicated that the budget was important to him because it is a statement of priorities for the organization and a roadmap for the year. The Board has already stated one priority which is to keep rates as low as possible. Another priority is to invest within the organization to provide services to D.C. Water's customers. Following the budget workshop additional budget details will be presented at the committee meetings. He thanked the CFO Mark Kim and his staff for their efforts.

All Board members were asked by Chairman Brown to respond to Ms. Manley's email concerning their availability on the proposed dates the middle of December for the Board Retreat. He noted that it will be an excellent opportunity to get together outside the formal meetings to discuss strategic issues.

Chairman Brown stated that the Board meeting agenda included an opportunity to approve Blue Drop and its governance. The Governance Committee is recommending approval of Blue Drop and its organization as a creative method for reducing the pressure on rate payers. Under Blue Drop D.C. Water's expertise will be provided to other organizations for a fee. Bloom, D.C. Water's biosolids product, will be sold by Blue Drop. He thanked Ms. Boardman for her work on reviewing and commenting about the Blue Drop documents based on her legal training and other expertise. It showed her dedication and care for D.C. Water.

It was announced by Chairman Brown that during this meeting D.C. Water would be presented with the Sustainable Water Utility Management Award by Ms. Vande Hei of the Association of Metropolitan Water Agencies (AMWA). Chairman Brown read a brief statement which included the following: "The Award recognizes water utilities that have made a commitment to management that achieves a balance of innovative and successful efforts in areas of economic, social, and environmental endeavors." Ms. Diane Vande Hei came forward and stated that she was honored to present the award to the Board of Directors and all of D.C. Water's employees and especially for its very creative, innovative, and renowned operation. She noted that AMWA represents solely the largest municipal publicly-owned water associations and provided background on the award. Ms. Vande Hei indicated that to get the Sustainable Award an organization had to first get AMWA's Gold Award and then its Platinum Award, and D.C. Water earned both awards. Chairman Brown thanked Ms. Vande Hei for the award on behalf of all of D.C. Water.

Chairman Brown pointed to the banner displayed behind him that noted the celebration of 20 years of D.C. Water. He stated that it is the appropriate time to thank the longest serving member of the Board, David Lake of Montgomery County, for his service since September 2001. Chairman Brown read Mr. Lake's biography and highlighted his service on the Environmental Quality and Sewer Service Committee since 2001, many years as Committee Chair, several occasions as Acting Chair, and service on the Governance Committee. Mr. Lake was presented with a commemorative item.

Mr. Lake then made some remarks which included the fact that he sees his association with D.C. Water as a high point of his career. He stated that he was involved when the organization was the Water and Sewer Utility Administration and there were some tough financial times. Mr. Lake indicated that he was part of the process of creating D.C. Water. He told everyone that D.C. Water has been an incredible success because it looks at issues not as jurisdictional representatives, but with an understanding of what is good for the Authority.

Governance Committee

Reported by: Ellen Boardman, Chair

Ms. Boardman reported on the Special Meeting of the Governance Committee held on October 21, 2016 to discuss the specifics of the Blue Drop Program and the governing documents. She stated that they met as a Special Committee of the Whole, since all board members were invited to participate. General Manager Hawkins and Alan Heymann, who will be the Manager of Blue Drop, presented a compelling case for Blue Drop to harness D.C. Water's intellect and its seeming genius for making things that are marketable and valuable to the community.

Ms. Boardman thanked the General Counsel's Office and Alan Heymann for the governing documents and the level of detail in them. She stated that the Committee was confident that they have the appropriate governing documents and the oversight mechanisms in place. D.C. Water is the sole member of Blue Drop. General Manager Hawkins will serve as Chairman of the Board of Directors. Since it is limited to a three-year trial run, Blue Drop will be driven and it will have all the internal and external oversight everyone believes will make it a success.

Environmental Quality and Sewerage Services Committee

Reported by: Obiora "Bo" Menkiti,

Mr. Menkiti stated that the Committee met on Thursday, October 20, 2016. Akile Tesfaye, Assistant General Manager for Wastewater Treatment, provided an update on the performance of the plant. The monthly average inflow for September was 252 million gallons per day (MGD). There was an excess flow of 4 mgd which resulted from a single wet weather incident. Mr. Tesfaye reported that the plant effluent quality was excellent.

It was reported that the annual National Pollutant Discharge Elimination System (NPDES) Permit Compliance Inspection by the District's Department of Energy and Environment on behalf of EPA was completed on September 14 and 15, 2016. The inspectors expressed their satisfaction with their findings and reported no significant issues.

Mr. Menkiti indicated that the Committee inquired about several plant operations issues which included an upward trend in the measured total phosphorus annual average and Mr. Tesfaye attributed that slight rise to the ongoing construction modification of the enhanced nitrogen removal facilities and their associated reactors that require taking some offline as modification were made. Another inquiry was about the 12-month average in fluid flow and whether there is a correlation with groundwater. Chief Engineer Leonard Benson said most likely there was a correlation due to infiltration and in flow.

Mr. Tesfaye informed the Committee that the plant's performance was excellent and there was 100 percent permit compliance in September. Biosolids production was 508 wet tons per day and all the production went to land application. The Combined Heat and Power Facility generated an average of 176 megawatts per day, which is 29 percent of the total energy consumed at Blue Plains. Mr. Tesfaye said they anticipate a slight increase in the future that

brings it up to 33 percent of power used. Mr. Menkiti stated that the Committee asked about a target date for completion of the commissioning activities. Mr. Tesfaye informed them that the commissioning tests were nearing completion and that a more definitive date would be provided in next month's update. He stated that economic studies have been conducted and that in November the CFO will present study results and other topics to the Committee and jurisdictional customers.

Mr. Menkiti reported that the Committee asked about the request and response from the Commonwealth of Virginia regarding D.C. Water's biosolids designation as Class A biosolids. Mr. Tesfaye stated that they are awaiting clarification regarding language in the Virginia permit and that when it is received, it is anticipated that the permitting and approval process will be completed. Marketing distribution permits have been received from the State of Maryland and the District.

Mr. Menkiti said that the Committee was informed by Mr. Tesfaye that the first order of 900 bags of the Bloom product was delivered to Casey Trees for tree planting for the D.C. Department of Transportation. Although it is a small amount, it is proof of the concept for the Bloom product.

The next agenda item was an update from Craig Fricke, on the Asset Management Program, and summaries on the capital program improvements, the vertical asset reliability, linear asset management improvements, and enterprise level initiatives. Mr. Fricke also provided an overview of the CANOE Model the program is using which is a long range strategic planning model developed by the Water Research Foundation for the identification of renewal needs of water and sewer networks. The Model output recommended 14 miles of vitrified clay pipe replacement and smaller replacement amounts for other types of pipe. More detailed information is available in the Committee's minutes which are located on D.C. Water's website.

Mr. Fricke walked the Committee through the linear asset risk assessment tool, summarized observations from the sewer system risk assessment and discussed the next steps for the Asset Management Program.

Mr. Menkiti stated that the Committee applauded the Asset Management Program team for the progress made thus far and expressed their interests in knowing when it will start influencing D.C. Water's activity. Mr. Benson informed them that they are already conducting comparisons between the Model's output and the current Capital Improvement Program. Some of the recommendations are already being implemented.

The Committee reviewed four joint use contracts and recommended them to the Board for approval.

There were two follow-up items. One was regarding clarification in fact sheets to clearly identify Community-Based Enterprise (CBE) organizations. The other item was to provide a schedule for completion of the acceptance test of the Combined Heat and Power Facility so the Board can understand when there will be a definitive end to the process and the project that has been ongoing.

Water Quality and Water Services Committee

Reported by: Rachna Butani Bhatt, Chair

Ms. Butani Bhatt stated that the Committee met on Thursday, October 20, 2016. In Charles Kiely's absence, Jason Hughes, Director of Utility Services, provided an update on water quality monitoring. He stated that the coliform testing was at .4 for September which is below the regulatory level. For Lead and Copper Rule Monitoring 59 samples have been collected for the monitoring period and they were at 2.8 parts per million, well below the action level.

Mr. Hughes reported that the annual service line material information was recently submitted to EPA under a voluntary agreement. The number of lead service lines, both known and unknown, was provided. They also highlighted the online interactive map and how the data is used to update and calibrate D.C. Water's records.

David Wall, Manager of Water Distribution, reported on the Fire Hydrant Upgrade Program. For this reporting period, out of approximately 9,500 public hydrants, there was a slight decrease in out-of-service hydrants from 40 to 36. Those that were inaccessible due to the need for repair or replacement and due to temporary construction were at .38 percent, well below the 1 percent target ceiling.

Mr. Hughes then presented for the Committee's recommendation for approval one non-joint use action item contract for Smart Grid Solutions for installation of D.C. Water supplied meters and meter transmission units. He stated that the company was not the lowest bidder. After many questions and much debate, they agreed to recommend the contract for approval.

Chairman Brown asked for a motion to go into Executive Session to discuss the Water System Replacement Fee. Before going into Executive Session, Chairman Brown stated that he thought it was important that customers with service questions have a clear understanding of the process and rationale for D.C. Water's rulemaking. He asked Biju George, Chief Operating Officer, to present the rationale for addressing the issue to be discussed in Executive Session. Mr. George stated that the issue related to 2800 Battery Place, Northwest, which is privately owned and connected to the water system by a six-inch water meter, which is unusual. The Executive Session proceeded. When the public meeting was reconvened, the meeting was adjourned.

General Manager's Report

Reported by: George S. Hawkins, CEO/General Manager

Mr. Hawkins stated that he is often asked what is behind D.C. Water's level of innovation. He informs them that it is because of the interactions between staff and the Board and the highest level of a governance structure. It has been the discipline, the depth, and the level of Board oversight that has enabled the innovation. The Board agreed to support the Combined Heat and Power Program, the Biosolids Management Plan, the Green Infrastructure Initiative, Environmental Impact Bond, Century Bond, and all sorts of financial instruments. This will include Blue Drop which is presented for vote. Mr. Hawkins stated that this has resulted from the Board's tremendous level of diligence that has resulted in improving what has been proposed. The Board's performance has made the staff better, the products better, and increased D.C. Water's confidence. Mr. Hawkins used the participation of David Lake as an example of how strong the collaboration between the Board and staff has been and what it has meant to D.C. Water. He also used Alan Roth, a former Board member, as an example of the tough but fair questions the Board has raised and suggestions they have made.

Mr. Hawkins announced that D.C. Water is a finalist for the 2016 C40 Cities Award and Cities 100 which is sponsored by Bloomberg Philanthropies. The Award recognizes cities for their leadership on climate action and showcases the innovative policies and programs that cities have implemented to tackle climate change. D.C. Water competed with 160 applications from 75 cities. Mr. Hawkins stated that D.C. Water is a finalist for its Walter F. Bailey Bioenergy Facility plan in the Clean Energy category. The winner will be awarded in December.

Mr. Hawkins then spoke about the Blue Drop Project and how much effort has gone into it over the last two years. He stated that the Project is better because of the team's interactions with the Board. This resulted in an improvement in concept and detail. He assured everyone that they will come back to the Board with updates and information on the financial aspects and attributes. Mr. Hawkins emphasized that these actions are done to reduce the pressures placed on rate payers by creating innovative projects to generate revenue.

Consent Items (Joint Use)

Chairman Brown asked for a motion to approve joint use action items. Mr. Firestine moved to approve Resolution No. 16-86 through 16-90, and it was seconded. The motion to approve Resolution No. 16-86 through 16-90 was unanimously approved by the members of the Board.

Consent Items (Non-Joint Use)

Chairman Brown asked for a motion to approve the non-joint use action item. Mr. Gibbs moved to approve Resolutions No. 16-91 and it was seconded. The motion to approve Resolutions No. 16-91 was unanimously approved by the District of Columbia members of the Board.

Mr. Hawkins stated that he meant to highlight the staff of Blue Drop who were present. He pointed to Alan Heymann would will serve as Manager of Blue Drop, Gloria Cadavid, who has been shepherding many of the documents through, Jennifer Harper, Principal Counsel and Henderson Brown, General Counsel.

Elisabeth Feldt indicated that she wanted to take the opportunity to recognize and thank CFO Mark Kim and Carlton Ray for the time they spent in Montgomery County explaining the process D.C. Water went through and the opportunities and challenges related to the Green Infrastructure Project.

Chairman Brown asked for additional comments and questions and there being none, the meeting was adjourned at 10:17 a.m.

Secretary to the Board of Directors



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

Board of Directors

DC Retail Water and Sewer Rates Committee

Tuesday, November 15, 2016

9:30 a.m.

MEETING MINUTES

Committee Members in Attendance

Rachna Butani, Acting Chairperson
Matthew Brown, Board Chairman
Ellen Boardman
Howard Gibbs
Reverend Kendrick Curry
Ana Harvey

DC Water Staff

Mark Kim, Chief Financial Officer
George Hawkins, General Manager
Henderson Brown, General Counsel
Charles Kiely, AGM, Customer Care & Operations
Linda Manley, Board Secretary
Consultant
Henrietta Locklear, Senior Manager
Katie Cromwell, Consultant

Call to Order

Acting Chairperson Ms. Butani called the DC Retail Water and Sewer Rates Committee meeting to order at 9:33 a.m.

Preliminary Analysis on CRIAC Restructuring (Attachment A)

Mr. Kim thanked the Committee for its commitment and unrelenting focus on affordability for our rate payers. He added that this presentation is in response to a request from the Committee to look at the rate setting process with respect to CRIAC and ways to potentially restructure CRIAC just like the Authority had done with water and sewer. This preliminary analysis is on what it will take to restructuring CRIAC. He stated that Raftelis Financial Consultants was contracted to perform this task as they were instrumental in developing the water and sewer rate restructure. This study was originally scheduled for December 2016, but was being presented earlier.

Mr. Kim introduced Ms. Henrietta Locklear, Senior Manager, Raftelis Financial Consultants.

Ms. Locklear first stated the study objectives:

- Assess impact of the CRIAC upon certain customer segments
- Develop an idea of whether relief is needed or warranted and if so, what does that mean?
- Determine how revenue will be impacted by any customer relief program or efforts
- Develop cost recovery alternatives for consideration.

Ms. Locklear then described the customer segments of interest:

- Non-profits
- Small business owners
- Charitable and religious organizations

- Low income residential customers (not enrolled in CAP).

Ms. Locklear explained the methodology for identification, which included:

- Identification of customers by segment
- Collection of financial information to evaluate affordability

Mr. Kim noted that DC Water's current CIS system does not have the ability to identify any of those customers. In the ECIS system customers are either residential or non-residential customers, so part of the scoping exercise is to provide an overview of what it would cost and how long it would take to get the data, which would have to come from a third party / outside sources.

Ms. Locklear stated that on the residential customer side we do know who those customers are in the system but we don't have their incomes. We would use census data to develop an idea of the extent of customers that may fall into the low-income categories. This methodology for identification and quantification of impacts is relatively straight forward, however, it is not applied to each particular customer in the service area. We do have the ability on a broad basis to identify those customers.

Ms. Locklear stated that DC Water provided Raftelis with a list of the non-profit customers, which although not complete, but can be quantified. The non-profits are difficult to identify and to collect affordability related data. Further analysis on the non-profit customer's assessment of affordability can be performed by obtaining financial data from the publicly available 990 tax filings for the 501c3 organizations. The tax exempt status of charitable and religious organizations makes collection of affordability related data difficult for these customers. A methodology will be developed to assess their affordability. Acting Chairperson Ms. Butani wanted to know if churches are exempt from filing a 990. Reverend Curry responded via telephone that all churches are required to file a 990 if they have financial transaction.

Ms. Locklear mentioned that small businesses will be evaluated based on the percent increase or dollar increase in their typical bills. It is most difficult to establish evaluation criteria for this customer segment.

Regarding small businesses, they are potentially the hardest group to identify and collect financial information for measuring affordability because it is difficult to analyze and categorize them based on size, location and business type. Some information may be collected from the Small Business Administration. Ms. Harvey asked what is considered small business in terms of revenue and how can we identify them since some of them are in homes. Mr. Kim noted that it would be better to define a small business since there is no current data available to identify these customers by segments.

Acting Chairperson Ms. Butani asked if there was any way to survey our non-residential customers and have people answer questions based on what they are. Mr. Kim noted that in the past couple of years we did a customer satisfaction survey. Ms. Boardman said that a self-informed survey lacks reliability and objectivity and I am concerned that we have to have an objective way of doing that and I am becoming less convinced we can do that. Acting Chairperson Ms. Butani suggested if a survey could be performed to obtain information from the Small Business Association (SBA). Ms. Harvey mentioned that we have a Gallop organization working with us starting next month for a survey of all small businesses in the District that will be completed by February. Also, we could rely on DCRA for business registration. She stated that a copy of the Gallop survey could be provided to DC Water. The Committee also raised concerns about the reliance on self-study surveys.

Next, Ms. Locklear showed how Affordability will be evaluated under the different customer segments. For residential customers, the current industry standard for measuring affordability is 4% of total household income.

Reverend Curry asked about the assumptions to arrive at 4 percent figure. Mr. Hawkins responded that US EPA guidelines suggest 4% (2% water & 2% sewer) based on median household income. This is not satisfactory but there are no thoughtful replacement for the study hence, DC Water will use the current industry standard established by the EPA. Reverend Curry requested for a copy of the report.

Ms. Locklear explained that for non-profits, charitable and religious organizations, Raftelis will evaluate the percent increase for a typical bill by applying 4% of operating expenses, similar to residential customers. Establishing evaluation criteria is more difficult for this segment of customers. Mr. Kim noted that once we identify the customer segments we are interested in doing a deeper study, this core question of evaluating, defining and setting a standard of affordability is going to be an enormous challenge. Assuming we get over the first two hurdles then what type of assistance can we offer. There are a number of different options we can explore: 1) discounted rates for certain customers; 2) providing credits much like we have done against some of our rates, charges and fees; 3) establishing a new assistance fund modeled after our customer assistance program; and 4) developing alternative rate structures. Once we do that we then need to model what the impact would be on DC Water's revenues. All of these discounts and credits would result in revenue shortfall for the authority and we would then quantify that and establish ways to make up for the revenue shortfall. Mr. Kim stated that the most important slide is "Identifying Solutions" with the first option of raising rates on existing customers. How do we make up for that revenue shortfall. At the end of the day that's what we all looking to do is to raise revenue to provide a benefit for a certain customer. In some ways raising rates on existing customers is the most unappealing option. In many ways we need to think beyond that as an acceptable option. Merely shuffling the deck of chairs and redistributing the burden amongst our existing rate payers does not really get at the core question of affordability for everyone. Solution to affordability is to broaden our customer base: 1) Reevaluate exempt customers; 2) Tourists; and 3) Suburban jurisdictions.

Mr. Kim suggested to broaden rate base to include customers not currently reached like District of Columbia who is exempt from paying CRIAC although it owns over 30 percent of impervious area on account of streets and Right-of-Way (ROW). If charged, it could reduce the CRIAC substantially, which currently is spread over the other rate payers because District of Columbia is exempt.

Approximately 17 million tourists visit Washington D.C. every year and use water and sewer services but do not pay for it. The District's 650,000 residents pay for such water and sewer services. The revenue can be generated from new source by adding 1 to 2 cents surcharge on hotels and restaurants. Mr. Kim gave an example of a building in New York called the Jacob K. Javits Convention Center. Tourist are charge a Jacob K. Javits Convention Center fee for staying at a hotel to help pay for the Convention Center. He suggested a surcharge on specific tourist related activities.

Mr. Hawkins noted that the most direct way would be a hotel surcharge on tourists. Ms. Harvey stated that hotels are already paying for the water that tourists are using so, it's unfair to charge them again. Mr. Hawkins responded that the question is not nobody should pay more or less, but there is an issue of affordability. I think this is an issue before us regardless of the question at hand, which is are we going to offer discounts to some parties. Our rates over the next ten years are above inflation. I think we have an affordability issue independent of the particular question we are asking. If we do reduce or do more on the affordability front that revenue will have to come from our existing rate payers, suburban or retail or some other source. Hotels pay a water and sewer bill that's no doubt and their impervious cover that little piece but the tourist are all over the city. To increase the revenue, the money will have to come from new source such as hospitality tax, our existing rate payers or suburban jurisdictions. There are no easy outcomes. Chairman Brown noted that DC Water anticipates to generate \$102 million CRIAC revenue in FY 2017. He stated that even though we cannot identify customers who pay less, which means somebody pays more. Ms. Harvey asked a question as to the role Blue Drop played on this. Mr. Hawkins responded that he doesn't foresee any revenue contribution in the near future.

Mr. Kim proposed the following next steps:

- Development of project timeline

- Finalize customer segments for evaluation
- Finalize identification methodology
- Evaluate rate relief options
- Begin revenue impact modeling
- Research, identify, and develop solutions

Mr. Kim suggested to conduct a survey on definition of affordability that other utilities have adopted in developing program like this. This survey would be used as a reference for DC Water.

Ms. Boardman asked what are the costs for outside experts and within existing departmental staff with a holistic look and potential of achieving our goal. While we push forward and look, I don't want to spend an enormous amount of money with an unattainable goal.

Mr. Kim referenced to the Committee that the last cost of service study for restructuring of water & sewer rates, fees and charges and implementing a new fixed WSRF fee cost approximately \$300,000. It took over eighteen months to complete with literally thousands of staff hours across Finance, General Counsel Office, Customer Service and IT to validate, design, test, and to make sure that it was legally defensible and that we have all the resources to do all the modelling and the projection. He expected that the CRIAC would be of similar magnitude.

Chairman Brown asked if there was a way to look at some initial/big picture numbers for an example a 50% CRIAC credit results in a \$0.11 increase to the rest of the customers. Mr. Kim responded in the affirmative. May be one path forward would be that rather than doing the exercise across all of the different customers segments if we could drill down and focus on the charitable, religious and educational institutions that have gotten a lot of focus from this Committee. There is a fair amount of precedence for non-profits institutions and subsets of non-profits to receive discounts/credit on certain charges. This might be one way forward to do this on a limited basis and present preliminary results to the Committee

Acting Chairperson Ms. Butani stated that non-profit segment has received a lot of attention from the Committee, but she is more concerned about the customers that fall just above the line. Those are the people that we have been very concerned about, because they really get hurt the most by rate increases. She was not sure if the Committee was there yet to make a decision on the non-profit. Chairman Brown suggested the next step on the exempt customers e.g. District of Columbia and tourists is to find out what it would cost on a 1 percent motel or hotel tax. May be this can be put in a policy.

The Committee also proposed that it was more prudent to know where the money was coming from and how much before discounts could be given to people, because the alternative would create an automatic roll down of cost to the other customers

DCGIS FY 2014 Flyover Update

Mr. Kiely briefed the Committee on the background of the flyover. He stated that the initial database was created from planimetric data which was originally created by District of Columbia Geographic Information System (DCGIS) in 1999 and updated in 2005 for DC Water's May 2009 Go Live. The effort was greatly underestimated and cost approximately \$2M. Typically updates are triggered by new premises being made active through the permitting process, customer calls or simple visual inspection of changes in ownership information or ortho-imagery. The DCGIS completed the latest flyover in November 2013 with the planimetric data and ortho-imagery being available (to DC Water) in the Spring of 2014. DC Water included \$800,000 in the FY 2015 capital budget to update the database. DC Water started updating its GIS data in 2015 and completed in 2016.

Mr. Kiely presented the flyover results, which showed addition of 850 new accounts and 10,955 additional ERUs.

In FY 2009 the total actual ERUs were 372,946 generating revenue of \$452,753 per month for five month (May – Sept. 2009). In FY 2016 total actual ERUs increased to 403,987 for revenue of \$8,621,205 per month.

Mr. Kiely showed the slide with ERUs by Customer Type. Residential, Commercial and Federal customers account for 28%, 34% and 18% of CRIAC revenue respectively.

Mr. Kiely then presented the Residential Tier Stratification. One of the issues the Enterprise faces is the categorizing IAC charges on the multi-family structures since they are mixed used, commercial and residential. Residential customers ERUs were created using wide band ranges which were further divided into tier structures using square footage. Majority of the residents fall within the 1 ERU tier (74%) and 0.6 ERU tier (17%).

Mr. Kiely explained the slide on the financial impacts:

- Accounts Receivable > 90 days delinquent as of 9/30/16 – \$7.7M
 - 12,406 accounts representing all bill classes
 - 35% or \$2.7 million represents Impervious Only accounts > 90 days delinquent
- CAP Distribution – CAP customers have slightly lower ERU costs than other residential accounts because more are in the smaller tiers
 - 25% of CAP customers in 0.6 ERU tier vs. 17% of all residential customers
 - 73% in 1.0 ERU tier vs. 74% among all residential customers
 - Less than 3% of CAP customers are at 2.4 ERU or higher tier vs. 9% of all residential customers
- Billing Density Analysis
 - Residential customers who are billed for less than 3 Ccf have more than 50% of their bill as fixed charges
 - Almost 500 non-residential customers have fixed charges that are 80% or more of their bill – primarily those with large buildings and large driveway or parking areas relative to the quantity of water use (churches, embassies, retail stores, Metro stations, cemeteries).
 - This population will grow with the shift in fixed charge rate design.

Mr. Kiely presented an analysis of Accounts Receivable greater than 90 days delinquent as of September 30, 2016. He mentioned that the increase in delinquent accounts receivable is mainly due to impervious only accounts. DC Water is closely monitoring the situation because standalone receivable amount increases as rates increase.

FY 2017 Proposed DC Retail Rates Committee Workplan (Attachment C)

There was no Committee discussion

Other Business

There was no other business

Executive Session

There was no executive session

Agenda for December 16, 2016 Committee Meeting (Attachment D)

There was no Committee discussion

Adjournment

The meeting was adjourned at 10:40 a.m.

FOLLOW-UP ITEMS – DC Retail Water and Sewer Rates Committee Meeting (November 15, 2016)

There were no follow-up items from the Committee meeting on November 15, 2016



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

Board of Directors

*Joint Meeting of the DC Retail Water and Sewer Rates
and Finance and Budget Committees*
Tuesday, November 15, 2016

10:45 a.m.

MEETING MINUTES

Committee Members in Attendance

Rachna Butani, Acting Chairperson
Timothy Firestine, Chairperson
Mathew Brown, Board Chairman
Howard Gibbs
Reverend Kendrick Curry
Ana Harvey
Ellen Boardman
Sarah Motsch

DC Water Staff

Mark Kim, Chief Financial Officer
George Hawkins, General Manager
Henderson Brown, General Counsel
Charles Kiely, AGM, Customer Care & Operations
Linda Manley, Board Secretary

Call to Order

Acting Chairperson Ms. Butani and Chairperson Mr. Firestine called the joint meeting of the DC Retail Water and Sewer Rates and Finance and Budget Committees to order at 10:45 a.m.

CAP Customer Clean Rivers IAC Presentation (Attachment 1)

Mr. Kim stated that he was back before the Joint Committee to make final recommendation as well as to answer the follow up questions from the Joint Committee meeting on September 27, 2016.

Mr. Kim briefed the committee on the Customer Assistance Program (CAP) overview:

- Residential CAP customers currently receive:
 - Credit of up to 4 Ccf of water, sewer, payment-in-lieu of taxes (PILOT) and right-of-way fee (ROW)
 - 100% credit for Water System Replacement Fee (WSRF)
- On July 7, 2016, the Board directed the General Manager to evaluate the CAP and make a recommendation to the Retail Rates Committee regarding the expansion of CAP to include CRIAC fees as soon as practicable – (Board Resolution #16-60)
- On September 27, 2016, in a Joint Meeting of the DC Retail Water and Sewer Rates and Finance & Budget Committees, management presented its initial analysis of a CRIAC credit and the Committees requested additional analysis and time to consider the options presented

Mr. Kim stated that “CAP Customer Enrollment Figures” slide is in response to a question asked in the last Joint Committee meeting held on September 27, 2016. Mr. Kim noted that since 2009, the number

of CAP customers has declined steadily by nearly 30% and this trend mirrors decline in the District's Department of Energy and Environment (DOEE) LIHEAP enrollment figures. Mr. Kim informed the Joint Committees that when DC Water reached out to DOEE and asked them if they had any understanding why their enrollment figures for LIHEAP were trending down, they could not provide any reason for drop in CAP participation. Ms. Boardman asked if the number of applicants was decreasing or the approvals of applicants. Mr. Kim replied that he believed it was actually both. In the past we have tried customer outreach efforts to educate customers about our CAP program and do so every year. It is incumbent on the customer to apply to the LIHEAP program through DOEE. Ms. Boardman asked if it was an automatic rollover to CAP when a customer enrolls in LIHEAP. Mr. Kim affirmed that when customers enroll in LIHEAP they are automatically approved for CAP. Ms. Boardman inquired why the numbers are not exactly the same for CAP customers and applicants approved by DOEE/LIHEAP. Mr. Kiely briefed the Joint Committee that there is an automatic enrollment in DC Water's CAP program if you apply for LIHEAP predominantly for electric and gas assistance. In some cases an applicant is not a customer of DC Water and he may live in an apartment building and does not have an individual account. Acting Chairperson Ms. Butani asked if CAP was an annual program. Mr. Kiely replied in affirmative.

Mr. Kim gave an overview of the CAP customers monthly ERUs by tiers and distributed GIS Flyover pictures of CAP customers with higher number of ERUs. Mr. Kim explained that the overwhelming majority of CAP customers have 1.0 ERU or less and approximately 3% of CAP customers have more than 1.0 ERU, which appear to be due to paved lots and building structures. Acting Chairperson Ms. Butani asked if it was not what we thought could potentially be retired community in an affluent neighborhood. Mr. Kim replied in the affirmative.

Mr. Kim gave an overview of the average CAP customer bills for FY 2017 and FY 2018, which assumed the approved 5% rate increase. In FY 2017, the average residential customer's monthly bill is \$96.35, which is reduced by -46.4% to \$51.69 for CAP customers. This is a very significant program for CAP customers and provides substantial assistance. If we assume 50% CRIAC credit, which management is recommending today, the average CAP customer's monthly bill will go down to \$40.57, which is approximately 58% lower than the average residential customers monthly bill. For CAP customers, the 50% CRIAC credit results in an additional discount of \$11.12 per month or \$134.40 per year. Mr. Gibbs inquired if the 50% credit assumes one ERU. Mr. Kim replied in the affirmative. Mr. Gibbs then asked if CAP customers with 0.6 ERUs would receive less credit than CAP customer with one ERU and for CAP customers with more than one ERU the credit would be larger than CAP customers with one ERU. Mr. Kim replied that it was correct.

Mr. Kim provided an update on the analysis of revenue impact of CRIAC credit options. Mr. Kim further explained that anytime we introduce a credit we generate a revenue shortfall for DC Water. For 50% CRIAC credit option, the total estimated revenue impact for FY 2017 and FY 2018 will be approximately \$874,000. The projected FY 2016 surplus will be used to cover FY 2017 and FY 2018 CRIAC loss of revenue. For FY 2019 and onwards, the CRIAC rates will be increased to cover the revenue shortfall. The increase in CRIAC rates for FY 2019, FY 2020 and FY 2021 will be \$0.11, \$0.12 and \$0.14 respectively. Acting Chairperson Ms. Butani asked if CRIAC increase of \$14M from FY 2018 to FY 2019 was not caused by the 50% credit on CRIAC. Mr. Kim replied in the affirmative. The CRIAC is designed to recover the cost of the Clean Rivers Project and the projected charges reflect the projected spending and projected debt issuance to finance the Clean Rivers Project. Mr. Gibbs asked whether the increase in the CRIAC is limited to residential customers or all categories of customers. Mr. Kim responded that the increase is for every customer.

Mr. Kim summarized the revenue requirements and implementation of credit:

- Total revenue requirements for CRIAC will remain the same
- FY 2017 and FY 2018 CRIAC has already been approved by the Board and any retroactive credit given in these years will reduce projected revenue
 - The Authority will use the projected FY 2016 surplus to cover the FY 2017 and FY 2018 CAP CRIAC loss of revenue

- For FY 2019 to FY 2026 the CRIAC will have to be increased to meet the revenue requirements
- Management recommends implementing a percent of CRIAC credit:
 - Management is recommending that any CAP credit be implemented as a percent of CRIAC (75%, 50% or 25%)
 - The fixed ERU and fixed dollar credit options are not recommended due to increased complexity and cost of implementation

Mr. Kim stated that the management is recommending the 50% credit given the conversation that we had in the last Joint Committee meeting as well as our own analysis of the economics and feeling that the 50% credit level still provides a very meaningful amount of assistance of this one charge to our customers. It also allows the Board to continue to provide some additional assistance in the future. Mr. Gibbs inquired if the money to pay for the 50% credit for CRIAC would have ordinarily gone to Pay-Go or the Rate Stabilization Fund (RSF) and if we approved the credit we are not trying to find the money. Mr. Kim replied that is was correct. Mr. Kim continued to explain that in addition to the 50% CRIAC credit, we are recommending that the form of the credit be on a percentage basis rather than the other two alternatives that we had previously discussed, which were a fixed dollar amount of credit or a fixed ERU amount of credit. The fixed dollar amount of credit was the least attractive way of providing the credit largely because it would require us to adjust it each year to keep pace with the overall percentage of assistance we are trying to achieve, whereas if we opted for either a percentage based credit or a fixed ERU credit, these would automatically escalate over time and maintain the same level of assistance that the committee had recommended. With respect to the choice between a percentage credit or a fixed ERU credit, it really boils down to administrative burden and cost in terms of reprogramming our billing system and that implementing a fixed ERU credit was burdensome and more expensive. Given that we are in the midst of replacing our customer information system, it did not seem to warrant all of the additional expense to reprogram the system which we are in the process of replacing. Therefore, the fixed percentage credit is the method we are recommending. Acting Chairperson Ms. Butani inquired that from a budgeting perspective, is LIHEAP a program CAP customers need to apply at one specific time of the year or can CAP customers be admitted to the program throughout the year. Mr. Kiely responded that predominantly it is done for fuel assistance but CAP customers can apply any time during the year. GM Hawkins stated that you can apply any time at the Reeves Center office. The reason most people apply early is because LIHEAP funds are fixed and if you apply later in the year you will have less chance of getting the funds that are left over. Acting Chairperson Ms. Butani asked, "from a budgeting standpoint how does DC Water account for the CAP enrollment." Mr. Kim responded that the total CAP enrollment has been declining and that serves as a natural cushion against if we had an unexpected surge of CAP customers' enrollment. We are comfortable in our projections for CAP customer enrollments.

Mr. Kim stated management is recommending an expansion of our CAP program with a 50% credit for the CRIAC. If the Committee were to take action and the Board take action in December, we are estimating that we would have the credit reprogrammed and tested and ready to go-live around May 2017. There is a question before the Committee of retroactivity and when we ought to make the credit effective. Should the credit be given when the system is ready to go-live in real time going forward or we can look to provide a retroactive credit back to October 1, 2016. Acting Chairperson Ms. Butani stated that a credit should be given once the system is ready in May 2017. GM Hawkins mentioned that one of the reasons this is a challenge is because, the same people who will be working on implementing the new credit are the folks working on the new ECIS system. GM Hawkins explained that the \$874,000 cost assumes the credit for two years and anything less than a whole year would be smaller. Chairman Firestine stated that in terms of retroactivity it does get more complicated because you would have to make sure that each person/household is eligible for the credit and it seems to be a tremendous amount of work. Mr. Gibbs mentioned that he agrees to go-live rather than going back with a retroactive credit and agrees with the 50% credit. Ms. Harvey mentioned that she agrees with no retroactivity and that the 50% credit is good. GM Hawkins added that if we can implement the credit sooner we will but no later than May 2017. Ms. Boardman was also in agreement with the 50% credit and the May 2017 start date.

The Joint Committee agreed on the 50% credit and the effective date of May 2017 and recommended the action item to the full Board in the meeting to be held in December.

FY 2018 Proposed Budget (Attachment 2)

Mr. Kim presented an executive summary of the FY 2018 proposed budget which includes the proposed operating budget of \$561.9 million, proposed ten-year Capital Improvement Plan (FY 2017 – FY 2026) disbursements of \$3.75 billion, lifetime project budget of \$10.9 billion, and proposed revenues of \$617.2 million.

Mr. Kim further explained that the operating budget increase of \$26.1 million over the FY 2017 budget is due primarily to increase in debt service and pay-go needed to finance the Authority's Capital Improvement Program (CIP), while the core operations and maintenance portion shows a decrease of approximately \$1.6 million. The ten-year CIP reflects the consent decree modification for the DC Clean Rivers Program and deferral of the Potomac River Tunnel, scheduled for construction from FY 2026 to FY 2030.

Mrs. Annie Fulton-George, Manager, Capital Budget, provided a brief overview of the capital budget proposal, which included the ten-year CIP (disbursement and lifetime) and capital equipment budgets. She noted that in-depth discussions on the capital projects will be reviewed by the Department of Engineering & Technical Services at the joint committee meeting on Thursday November 17, 2016. She provided an overview of the historical and projected disbursements noting that while there is decline in the ten-year disbursement plan from FY 2017 to FY 2026, however, there is an uptick from FY 2025 to FY 2026 due to planned spending for the Clean Rivers Project. Capital Equipment spending for FY 2017 is projected at \$55 million, with key budget drivers including the Meter Replacement Program, various information technology and security programs, Customer Information System (CIS), and Enterprise Resource Planning (ERP) projects. In response to a question on Other Reserve Funds in the proposed Capital Equipment Budget by Acting Chairperson Ms. Butani, Mrs. Fulton-George and Mr. Kim stated that the funds are used to meet the Authority's pending obligations from prior years and also to accommodate other unfunded items such as replacement of the Authority's current financial system which has exceeded its useful life.

Mrs. Lola Oyeyemi, Manager, Operating Budget, provided an overview of the FY 2018 operating budget proposals, reiterating that the core O&M need of the operating budget (O&M) has remained relatively flat with moderate increases based on historical and projected trends from FY 2009 to FY 2018. She explained that the proposed FY 2018 O&M budget reflects a decrease of \$1.6 million and a decline in the O&M portion of the total budget from approximately 60 percent in FY 2017 to 57 percent in FY 2018.

Mrs. Oyeyemi provided in-depth discussions on the historical trends and underlying budget assumptions for the various cost categories of the Authority's budget. She mentioned that no additional FTE was recommended and the total headcount will be maintained at the board-authorized level (1260) until a lower single digit vacancy rate is achieved. In response to Chairman Firestine's question on the personnel cost, Ms. Oyeyemi explained that the increase was associated with annualized cost (making whole) of past organizational restructurings, coupled with increases in employees' health insurance costs. It was also noted that any additional funding needed to support union pay increase that may result from the collective bargaining agreement, which expired in 2015, would be accommodated from potential savings from other line items within the proposed FY 2018 budget.

Ms. Oyeyemi further explained that the budget proposal reflects materialized savings resulting from the performance of the digester project, which was commissioned in February 2015. There has been a significant decline in both the biosolids production from 1087 WT/D in FY 2014 to 435 WT/D in FY 2016 and associated hauling costs from \$20 million to \$7 million in FY 2016. Mr. Hawkins, CEO & General Manager, noted that the wholesale customers' share as well as WSSC biosolids contract have also declined.

Regarding the Combined Heat & Pressure (CHP) project with on-site electricity generation beginning in late June 2015, Ms. Oyeyemi noted that this has reduced the authority's reliance on the grid thereby driving down electricity costs. She explained that the projected increase in the Blue Plains' demand from 19 MW in FY 2016 to 23MW by FY 2018 is for the new facilities (Filtrate Treatment and Wet Weather) anticipated to come online. Ms. Oyeyemi stated that due to the volatility in the market conditions and to ensure budget certainty, some of the Authority's electric loads have been hedged through FY 2018. She also stated there is projected uptick in the utilities cost for natural gas and water usage in the digesters.

Mr. Firestine enquired if there were any expectations for budget savings in the approved FY 2017 budget based on the performance in FY 2016. Mr. Kim and Ms. Oyeyemi explained that while we are still at the early stages of the new fiscal year, management anticipates some underspending in the areas of chemicals, biosolids and electricity which is contingent upon the continued optimization and performance of the digester and CHP. In addition, it is pertinent to note that impact of the union agreement was not included in the FY 2017 budget. Ms. Oyeyemi mentioned that consistent with the refunds offered to wholesale customers in FY 2016, their proportionate share of any budget underspending will be reflected in FY 2017.

Ms. Oyeyemi reported that the outlook for chemicals based on historical cost trends are stable and the FY 2018 budget assumes lower pricing for some major chemicals such as methanol based on market conditions, continued treatment processes that uses less expensive replacement chemicals like lime slurry and projected reduction in the use of methanol when the Filtrate Treatment Facilities are completed. In summary, Mrs. Oyeyemi reiterated management's high level of confidence that the Proposed FY 2018 Operating Budget would be sufficient to meet the Authority's core business needs as they continue to manage any operational risks that might arise.

Mr. Kim provided an overview of the ten-year financial plan which comprises of the retail rates, charges, fees and revenues noting that the plan reflects the multi-year rate proposal of 5 percent increase in FY 2017 and FY 2018 as previously adopted by the Board. He stated that the Authority's revenue sources are well diversified and the proposed increase in revenue requirements in the proposed FY 2018 revenues reflect a shift from wholesale customers to retail customers. Revenue comparison by customer class shows projected increase in retail revenues by \$27 million from FY 2017 to FY 2018, while the wholesale revenue is projected to decrease by \$5.4 million during same period. This fundamental change is as a result of the shift in CIP projects that are planned to be performed outside Blue Plains, such as the Clean Rivers and Tunneling Projects.

Mr. Kim discussed the impact of the Consent Decree modification on affordability which would have required additional \$500 million spending on the clean rivers program between FY 2021 and FY 2025. Without the agreement, the Authority would have had to raise the needed funds through significant rate spikes for the projected water & sewer rate up to 7.5 percent or CRIAC rates up to \$10.34 per month, thereby increasing the average residential customers' bill.

Mr. Kim identified several operational risks that included the collective bargaining agreement, which expired on September 30, 2015; impact of higher plant flows on chemical costs, electricity usage, and biosolids production; new facilities slated to be placed into operation (such as Filtrate Treatment and the Wet Weather Facilities); changes in healthcare premiums; increased insurance premiums due to increased asset portfolio; and litigation reserves.

Action Items

The Committee agreed to move the following action items forward for Board approval and adoption:

- A. Recommendation for Approval of the FY 2018 Proposed Budget
 - (I) Fiscal Year 2018 Proposed Operating Budget, totaling \$561,947,000

- (II) Fiscal Year 2017 – FY 2026 Capital Improvement Program totaling \$3.75 billion and Lifetime Budget totaling \$10.9 billion
 - (III) Fiscal Year 2017 – FY 2026 Ten-Year Financial Plan with FY 2018 operating receipts totaling \$617.2 million
 - (IV) Intent to Reimburse Capital Expenditures with Proceeds of a Borrowing not to exceed \$323,000,000 for FY 2018
- B. Recommendation for Approval of Expansion for the CAP Program to provide 50 percent credit for eligible customers that are billed monthly for Clean Rivers Impervious Surface Area Charge (CRIAC)

Adjournment

The meeting was adjourned at 12:06 p.m.

FOLLOW-UP ITEMS – Joint Meeting of the DC Retail Water and Sewer Rates and Finance and Budget Committees (November 15, 2016)

1. Modify the Comparison by Cost Category table for the FY 2018 Operating Budget to include the FY 2016 Projections and Capital Labor.



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

Board of Directors

Finance and Budget Committee

Tuesday, November 15, 2016

11:00 a.m.

MEETING MINUTES

Committee Members

Timothy L. Firestine, Committee Chairperson
Matthew Brown, District of Columbia

DC Water Staff

Mark Kim, Chief Financial Officer
Henderson Brown, General Counsel
Linda Manley, Board Secretary

Call to Order

Chairperson Timothy L. Firestine called the meeting to order at 12:11 pm.

October 2016 Financial Report

Mr. Mark Kim, CFO, reported that with 8.3 percent of the fiscal year completed, revenues, operating expenditures and capital disbursements are on track with budgetary expectations. Cash balances at the end of October were \$145 million, slightly above management's goal of \$140 million but lower than the levels in FY 2016. Investment portfolio returns an average of 78 basis points in annualized performance during October.

Capital Improvement Program Quarterly Update

At the conclusion of FY 2016, capital project disbursements totaled \$520 million, which is 4% above the baseline disbursement projection of \$499 million. The overspending occurred in the service areas of combined sewer overflow, stormwater, sanitary sewer, and water, offset by underspending in non-process facilities and wastewater treatment service areas. Drivers of the overspending includes project acceleration, emergency response, and underestimated condition of sewer and water distribution systems.

FY 2017 Plan of Finance Update

Mr. Kim apprised the committee that management anticipates a bond deal of \$300 million in January 2017. This will comprise of \$200 million in traditional debt and \$100 million in green bonds. The senior managing syndicate will underwrite the transaction. Financing terms and documentations will be presented for committee review during its meeting in December 2016.

Adjournment

Hearing no further business, Chairperson Firestine adjourned the meeting at 12:15 pm.



**District of Columbia
Water and Sewer Authority**

Board of Directors

**Environmental Quality and Sewerage
Services Committee Meeting**
Thursday, November 17, 2016

9:31 a.m.

MEETING MINUTES

Committee Members

David Lake, Acting Chairperson
Mathew T. Brown
Howard Gibbs
Elisabeth Feldt

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. Lake called the meeting to order at 9:31 A.M.

II. AWWTP STATUS UPDATES

1. BPAWTP Performance

Mr. Aklile Tesfaye, Assistant General Manager for Wastewater Treatment began the update by reporting the monthly average influent flow for October 2016 was 241 million gallons per day (MGD). During this reporting period, the Plant experienced its lowest influent flow observed over the past 20 years. Total precipitation for the month was 0.9 inches, as measured from Reagan National Airport. Mr. Tesfaye also stated that Plant effluent quality was excellent as demonstrated in the discharge levels of total suspended solids (TSS), ammonia, total phosphorous, carbonaceous biochemical oxygen (CBOD), pH, dissolved oxygen (DO) and E. Coli levels, which were all considerably better than the National Pollutant Elimination Discharge System (NPDES) permit limits.

Mr. Tesfaye highlighted the Plant Influent Flow Trend graph and commented that while for any given month the influent flow is weather dependent, the 12-month rolling average influent flow of the Plant has remained at or below 300 MGD since February 2011. Mr. Tesfaye continued the update by stating that the enhanced Nitrogen removal facility is performing well; producing a total Nitrogen (TN) concentration of 2.98 mg/l. The total weight of Nitrogen discharged in the calendar year through October 2016 is on target to meet the approximately 4.4 million lb/year permit limit.

Mr. Tesfaye further stated that all other Plant performances were excellent with 100% permit compliance. In October, biosolids production was 432 wet tons per day (wtpd) with most of the

production going to land application. The biosolids generated were Class A biosolids that also met Exceptional Quality standards for pathogen reduction, volatile solids reduction (VSR) and low metals content. The Combined Heat and Power facility (CHP) facility generated an average of 175 megawatt hours (MWH)/day, making up 30% of total energy consumed at Blue Plains (i.e., 589 MWH/day) while the average energy purchased from PEPCO was 414 MWH/day.

The Committee requested a brief summary of the pilot research project being conducted by the Water Quality and Technology department. Mr. Tesfaye responded by stating that the focus of the project was in researching an optimized treatment process in order to achieve energy neutral operations by harvesting carbon. Carbon harvesting is the process through which organics are captured in the sludge stream and directed to an energy recovery process such as anaerobic digestion. This will have the advantage of reducing energy used in the elimination of carbon via oxidation and in using the carbon in digesters for generation of energy.

III. CLEAN RIVERS PROJECT STATUS UPDATE

Mr. Carlton Ray, Director, Clean Rivers Project, began his presentation by mentioning that DC Water had succeeded in obtaining an amended consent decree from the Environmental Protection Agency (EPA), which resulted in the addition of 5 years to the implementation schedule and a five-year deferral of approximately \$400 million in spending for the Potomac Tunnel project. The Committee then commended Mr. Ray, the DC Clean Rivers (DCCR) team and DC Water on winning the Engineering News Report (ENR) Water and Wastewater project of the year award for the Mid-Atlantic Region and nationally, for the Blue Plains Tunnel (BPT) project that was recently completed. Mr. Ray mentioned that DC Water's third tunnel boring machine (Nannie) completed a nearly 2.5 mile tunnel as part of the Anacostia River Tunnel (ART) project. The tunnel measured 12,500 feet long, 23 feet in diameter and has a capacity of more than 38 MG.

Mr. Ray proceeded to update the Committee on some major accomplishments in the third (3rd) quarter of FY 2016. Division D – Joint Base Anacostia Bolling (JBAB) Overflow and Diversion Structures project is designed to capture flow from the Potomac Outfall Sewers (POS) and convey it to Blue Plains via the BPT while having the capability to allow overflow to the Anacostia River when BPT is at capacity. As of October 1, 2016, the project is at 44% completion with the following construction activities ongoing or completed: pour of diversion structure walls, pour of base slabs for overflow structure and wall installation for the ventilation facility structure.

Mr. Ray also updated the Committee on progress of Division Z – Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion project. As of October 1, 2016, the project is at 44% completion with the following construction activities ongoing or completed: micro tunneling for the Anacostia Main Interceptor (AMI) sewer between Manhole 3 and the Emergency Overflow Chamber (EOC), concrete wall pour for Main Pumping Station and sheet and secant piles installation at Main Overflow Structure (MOS).

Division I – Main Pumping Station (MPS) Diversions project is at 57% completion as of October 1, 2016. To date, the following construction activities have been completed or are ongoing: construction of structural slab replacements on CSO 012, excavation of effluent side and of surge chamber area and base slab pour for CSO 009/011.

Mr. Christopher Allen, Assistant Director, Clean Rivers project, next gave an update on the progress of the Division P – First Street Tunnel project. As of October 1, 2016, the project is at 93 completion with the following construction activities ongoing or completed in the respective

construction staging areas (CSAs):

- Pump Station CSA: site restoration has been completed and the road has been re-opened to the public
- V Street CSA: site restoration has been completed and the road has been re-opened to the public
- Adams Street CSA: site restoration has been completed and the road has been re-opened to the public
- Channing Street CSA: backfilling, site grading and demobilization are ongoing

Mr. Ray stated that the Division U – North East Boundary Tunnel (NEBT) Utility Relocations project is at 13% completion as of October 1, 2016. The following construction activities are ongoing or completed: partial completion of 1st High 48-inch water main relocation at R Street; relocation of a 30-inch storm sewer at R Street; relocations of 8- and 12-inch water mains at 4th Street; and, relocation of an 8-inch water main at Mt. Olivet.

Division J – Northeast Boundary Tunnel (NEBT) project has a planned notice to proceed (NTP) date of September 18, 2017. At completion, the tunnel will have an inside diameter of 23 ft., a length of 27,000 ft. and have depths ranging from 60- to 140-ft. vertical. When constructed, this tunnel will be the longest tunnel in the Clean Rivers Project.

Division PR-B – CSO 021 Diversion Facilities (Kennedy Center) project is at 25% completion as of October 1, 2016 where relocation of a 36-inch storm drain has started and installation of the secant piles is at 60% completion. The facility, when completed, will intercept flows from CSO 021 and redirect them to the future Potomac River Tunnel during wet weather conditions. Mr. Ray mentioned that the Kennedy Center for the Performing Arts (KCPA) Expansion project site (adjacent to the DCCR project site) activities had been slightly slowed due to the discovery of an old gas pipe under the site. The Committee further inquired regarding the finding. Mr. Ray stated that the old gas pipe was found on the KCPA portion of the project site and that further tests were done to determine if there are other locations with similar issues. So far, none has been found and the project is ongoing.

For the Division RC – A – Rock Creek Green Infrastructure (GI) Project A, the GI program plan and project description has been submitted to the EPA. The Request for Proposal (RFP) development is completed and procurement is currently underway with an expected notice to proceed (NTP) date of January 2017. Mr. Ray also mentioned that the GI program plan and project description for the Division PR – A – Potomac River Project A has been submitted to the EPA. The RFP development is currently underway with an expected design-build NTP in June 2017.

Mr. Ray further mentioned that the Kennedy Street GI project will be constructed with DDOT's planned Street Improvement Project. The groundbreaking for this project was held on October 21, 2016 with Mayor Muriel Bowser in attendance.

Mr. Ray also stated that the GI Certification Program will conduct its first technical training in late 2016 and begin certification examinations in early 2017.

Mr. Ray concluded his presentation by stating that the DCCR project is on schedule. He mentioned the current shortfall in spending is due to lagging invoices but that DCCR expects to have spending on target at the completion of the 2016 fiscal year. The Committee inquired as to when the tunnels will start accepting overflows. Mr. Ray responded that all work being done in

association with the consent decree has to be completed by March 23, 2018 and will be available for accepting overflows after that date. He also mentioned that the overflow control for the Bloomingdale neighborhood is currently completed and operational. The Committee commended Mr. Ray and the DCCR project in general for its consistent exceptional performance and on achieving such significant accomplishments.

IV. ACTION ITEMS

JOINT USE

1. Contract No. WAS-12-066-AA-RE, Polydyne, Inc.
2. Contract No. 15-PR-DWT-35, Polydyne, Inc.
3. Contract No. 16-PR-DMS-43, Electric Motor & Contracting (EMC).
4. Contract No. DCFA #428 – WSA, AECOM
5. Contract No. DCFA #473 – WSA, Hazen and Sawyer

Mr. John Bosley, Chief Procurement Officer, DC Water, presented action items 1 through 3. Mr. Len Benson, Chief Engineer, DC Water, presented Action Items 4 and 5.

Action Item 1: Request to extend option year two (2) and add funding to the contract to deliver dry polymer to DC Water. This polymer (Polydyne's MA-039) is used to condition and prepare biosolids in the pre-dewatering process.

Mr. Bosley stated that DC Water periodically works with polymer suppliers to ensure utilization of best products and correct dosing rates and that this is verified by periodic testing (laboratory and full scale) which is usually done a few months before the expiration of polymer supply contracts (12-31-2016). The Committee inquired as to who does the testing and what the cause for the delay was. Mr. Bosley responded that the testing is done by an independent testing agency and that test scheduling was the cause for the delay. Mr. Tesfaye, Assistant General Manager, Blue Plains also mentioned that the testing of the polymers is a means to re-qualify and ensure the products used are of the highest available quality but this does not mean that current polymers used by DC Water are in any way deficient.

Action Item 2: Request to exercise option year one (1) of the contract to deliver polymers to DC Water. The belt press polymers under this contract (Polydyne's C-3699 and C-6288) aid in increasing the solids content of biosolids from 17% to 32% when exiting the dewatering operation. These polymers do not require testing.

Action Item 3: Request to execute a contract for the repair and rehabilitation of various process assets.

The purpose of this contract is to provide the Department of Maintenance Services (DMS) and Department of Distribution & Conveyance Systems (DDCS) the services of a qualified contractor to provide inspection, repair, replacement, and upgrade of various process assets such as pumps, motors, blowers and valves at all DC Water facilities. The Committee inquired if DC Water had used EMC in previous contracts. Mr. Bosley responded in the affirmative.

Action Item 4: Request to execute a supplemental agreement contract to provide construction management and related engineering services for the management of multiple major construction contracts at the Blue Plains Wastewater Treatment Plant.

Action Item 5: Request to execute an architectural and engineering services contract to provide engineering and technical studies, concept designs, final designs and services during bidding and construction phases on an as-needed basis.

The Committee inquired if DC Water anticipates these services to eventually start being managed by in-house DC Water personnel. Mr. Benson replied that this is unlikely because most of the task orders under this contract will be of limited scope and on an as-needed but not regular basis.

The Committee recommended all five (5) Joint-Use actions to the full Board.

NON JOINT USE

None.

V. QUARTERLY CIP REPORT

Mr. Paul Guttridge, Manager, Program Controls gave an update on the fourth quarterly report for fiscal year (FY) 2016 regarding DC Water's Capital Improvement Program (CIP). Current projected FY 2016 disbursements through the end of September 2016 were 4.0% above the baseline. Mr. Guttridge outlined the achieved disbursements and an explanation of significant variances within the service areas as follows:

- Non- Process Facilities Service Area:
 - The disbursements for Project HH – New Fleet Management Facility are \$4.7 million (M) below baseline mainly due to ongoing coordination of the agreement between DC Water and the DC Government that has rescheduled the start of design and construction.
- Wastewater Treatment Service Area:
 - Disbursements for Project XA – New Digestion Facilities are \$7.2M below baseline partly due to later than anticipated retention release on the delayed substantial completion of the Combined Heat and Power facility and delays from unanticipated field conditions at the Final Dewatering Facility.
 - FY 2017 work scheduled for Project OZ – Grit Chambers 1 & 2 Upgrades was delayed due to slower than expected work on other associated projects included in the package.
- Combined Sewer Sytem Service Area:
 - Disbursements for this service area were \$7.0M above baseline due to the acceleration of the construction of the Potomac Tunnel drop shaft at (Combined Sewer Outfall) CSO 021 from FY27 to FY17 to take advantage of the Kennedy Center's current expansion at the same location.
- Stormwater Service Area:
 - Disbursements for this service area were \$0.8M above baseline. There were no significant individual project variances.
- Sanitary Sewer Service Area:
 - Disbursements for Project DW – FY2016 – Department of Sewer Services (DSS) managed contract for Sanitary Sewer projects were \$4.8M above baseline partly due to work paid for in early FY16 related to the emergency response at the Capital Crescent Trail on the Upper Potomac Interceptor Sewer. In addition, disbursements for Project DI – FY2015 – DSS Sanitary Sewer project are \$3.8M

above baseline largely due to greater than anticipated repairs required to the sewer system.

- **Water Service Area:**
 - Disbursements for Project O2 – Small Diameter Water Main Rehab (SDWMR) 10 A&B are \$5.3M above baseline largely due to additional paving and additional 2-inch copper service lines not anticipated during design.
 - Disbursements for Project DG – FY2015 – Department of Water Services (DWS) managed Water Projects are \$2.0M above baseline largely due to greater than anticipated repairs required to the water distribution system.

Mr. Guttridge also reported: 1) all Priority 1 projects (court ordered, stipulated agreements, etc.) are on schedule and within budget; 2) the 6-month look ahead for large contract actions include the following: SDWMR 11c, Division RC-A – Rock Creek Project 1 (GI) and SDWMR 12a.

In conclusion, Mr. Guttridge next summarized the status of the Key Performance Indicators (KPIs) for the CIP as of 4th quarter FY 2016. For the 4th quarter, two of the KPIs were achieved early, five were achieved on time and eight of the remaining planned KPIs were not achieved, as follows:

- Construction Start for SDWMR 12a due to additional design work resulting from lessons learned on similar contracts that should help reduce construction change orders.
- Construction Start for Low Area Trunk Sewer (LATS) due to D.C. Department of Transportation permitting requirements for all road lanes to be open during the day, necessitating redesign of bypass pumping operations.
- Construction Start for Rehabilitation of Sewers in Georgetown due to the need to perform additional archeological assessment and community coordination and outreach.
- Construction Substantial Completion for Small Local Sewer Rehab (SLSR) 2 due to various contractual issues. DC Water is pursuing action against the contractor as a remedy.
- Construction Substantial Completion for SLSR 4 due to additional time needed to procure permits, non-locatable/buried manhole and access to private property.
- Construction Substantial Completion for Large Valve Replacement 11R project due to re-procuring and relocating one of the valves.
- Design Start for Project IX – Blue Plains Advanced Wastewater Treatment Plant: Headworks Heating Ventilation and Air Conditioning Rehabilitation deferred due to need to combine the project with two others for efficiency.
- Deferral of the Rehab of the Rock Creek Main Interceptor to FY2024 due upcoming 5-year roadway moratorium.

VI. OTHER BUSINESS/EMERGING ISSUES

None.

VII. ADJOURNMENT

Meeting adjourned at 11:33 a.m.

Follow-up Items

None.



**District of Columbia
Water and Sewer Authority**

Board of Directors

**Joint Meeting of the Water Quality and
Water Services Committee and the
Environmental Quality and Sewer
Services Committee**

Thursday, November 17, 2016

10:35 a.m.

MEETING MINUTES

Committee Members

David Lake, Acting Chairperson
Rachna Bhatt
Mathew T. Brown
Howard Gibbs
Elisabeth Feldt

DC Water Staff Present

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

I. Call to Order

Mr. Lake called the meeting to order at 10:35 A.M.

II. CAPITAL IMPROVEMENT PROGRAM (CIP) BUDGET

Mr. Len Benson, Chief Engineer, gave an update on DC Water's Capital Improvement Program (CIP) and provided a summary regarding lifetime budgets, disbursements, major initiatives funded, unfunded projects, CIP issues & sensitivities, and finally, presented two action item recommendations to the Committee.

Mr. Benson stated that a project lifetime budget is the full budgeted amount for projects that are active within the ten-year CIP period. The lifetime capital projects budget is based on extensive project reviews, historical spending prior to the current ten-year period, projected spending beyond the current ten-year period and project contingencies. The approved lifetime Capital Projects budget for FY 2016 – FY 2025 was \$9.74B, the proposed lifetime Capital Projects budget for FY 2017 – FY 2026 is \$10.27B while the overall lifetime budget increase over the same period is \$526.8M. The lifetime Capital Project budget increases were attributable to the following:

- Dropped projects - \$157.0M
- Deferred projects - \$51.9M
- New projects added - \$524.1M
- Project changes - \$211.6M

The Committee inquired if criteria developed as part of DC Water's Asset Management Plan (AMP) were used when deciding to remove or defer projects. Mr. Benson responded in the affirmative.

Lifetime budget for New Projects or projects with budgets greater than \$10M in the three service areas included:

- Wastewater Treatment
 - 14 – Grit Removal Facility 20 year Rebuild (\$72.5M)
 - 15 – Raw Wastewater Pump Stations 1 & 2 (\$29.0M)
 - B6 – Primary Sedimentation Tank Covers (\$43.6M)
 - B7 – Primary Sedimentation Tank Odor Scrubbers (\$45.9M)
 - LF – Nitrification Reactor/Sedimentation 20 year Rebuild (\$138.0M)
 - JC – Secondary East and West 20 year Rebuild (\$96.0M)
- Sewer System
 - Continuation of Service Life Restoration projects, FY26 (\$45.0M)
- Water System
 - Continuation of Service Life Restoration projects, FY26 (\$65.5M)

Lifetime budget for Project Changes or changes to project budgets in excess of \$10M were categorized as follows:

- Wastewater Treatment
 - BQ – Primary Treatment Facilities, Phase II (\$24.4M change)
 - IZ – Replacement/Upgrade of Influent Screens (\$41.5M change)
 - BX – Gravity Thickener Upgrades, Phase II (\$36.6M)
- Sewer System (Sanitary, Storm, Combined)
 - HS – Rehab of Influent Sewers (\$34.4M change)
 - GH – Large Sewer Rehab 3 (\$13.3M change)
 - LZ – Potomac Interceptor Projects, Phase II (\$19.8M change)

The Committee inquired if DC Water had presented these add-on budget changes during the meeting with the wholesale users. Mr. Benson responded in the affirmative.

Mr. Benson stated that DC Water has planned Capital Project disbursements of approximately \$3.4B (which reflected an increase by \$90M from last year's projections) for projects managed by the Department of Engineering and Technical Services (DETS) and disbursements of \$305M for additional capital programs managed by others. Next, Mr. Benson highlighted multiple graphs that showed the projected Capital Project disbursements disaggregated into the four program categories (i.e., Non-process facilities, Blue Plains, DCCR and Water & Sewer Infrastructure).

Prioritization of CIP spending is set as follows (from high to low priority):

- 1A – Mandates (\$1.34B or 39.1% of total)
 - Includes projects due to agreements, regulatory standards, court orders, issues & permit requirements, stipulated agreements...etc.
- 2A – Health & Safety (\$51.6M or 1.5% of total)
 - Includes projects required to address public safety.
- 2B – Board Policy (\$318.9M or 9.3% of total)
 - Includes projects undertaken as a result of the Board's commitment to outside agencies.
- 2C – Potential Failure (\$349.7M or 10.1% of total)
 - Includes projects related to facilities in danger of failing or critical to meeting permit

- requirements.
- 2D – High Profile/Good Neighbor (\$19.7M or 0.6% of total)
 - Includes projects that address public concerns.
- 3A – Good Engineering/High Payback (\$895.4M or 26% of total)
 - Includes projects needed to fulfill DC Water Mission and provide necessary upgrade to facilities.
- 3D – Good Engineering/Lower Payback (\$462.2M or 13.4% of total)
 - Includes lower priority projects.

Mr. Benson next stated the major initiatives funded under the current CIP (i.e., projected FY 2017 to FY 2026 disbursements) as follows:

- DCCR (\$1.2B total)
 - Northeast Boundary and Branch Tunnel
 - Potomac LTCP Projects
 - Rock Creek LTCP projects
- Water Pipe Program (\$412M total)
 - Small Diameter Water Mains (1% replacement)
 - Large Valve Replacements
 - Large Diameter Water Mains
- Water Pump Stations and Storage Rehab (\$77M total)
 - St. Elizabeth Water Tank
 - 2nd High Water Storage
 - Bryant St. Pump Station
- Sewer Pipe Program (\$437M total)
 - Small Sewers Rehab
 - Sewer On-going
 - Creek Bed Sewer Rehab
 - Major Facility Plan Sewer Rehab (includes the Potomac Interceptor)
- Sewer Pump Stations Rehab (\$52M total)
 - Potomac Pump Station
 - Main & O Street Pump Station
- Wastewater Blue Plains (\$844M total)
 - Enhanced Nitrogen Removal Facilities
 - Liquid Processing
 - Solids Processing
 - Plantwide
- Headquarters Building (\$51M total)

In addition, Mr. Benson summarized projects that were not included in the proposed 10-year lifetime budget (i.e., “unfunded projects”) as follows:

- Blue Plains projects (\$261M total) that include the Full Plant De-ammonification and Odor Control projects
- Planned Sewer System projects (\$300M total) that include the rehab of the Northeast Boundary Sewer Phase 2, Tiber Creek Sewer Lining Phase 1 and Rehab of Influent Sewers
- Planned Water projects (\$91M total) that include the 1MG 4th High East Storage Tank and large valve replacement projects

Additional issues identified that could potentially impact the extent of the CIP are primarily regulatory/consent-decree related and include: changing MS4 regulations; lack of risk allowance

in DCCR Potomac River and Rock Creek green infrastructure projects; outcome of upcoming 2017 mid-term assessment of the Chesapeake Bay total maximum daily loads (TMDLs); and changing NPDES water quality standards.

In conclusion, Mr. Benson presented to the Committee Action Item 3C: FY 2017 – FY 2026 Proposed Capital Improvement Program (10 – Year Disbursement Plan and Lifetime Budget) for the Committee’s consideration and recommendation to the Board.

III. ACTION ITEMS

1. FY 2017 – FY 2026 Proposed Capital Improvement Program (10 – Year Disbursement Plan and Lifetime Budget)

Mr. Len Benson, Chief Engineer, DC Water presented Action Item 1.

Action Item 1: DC Water presented its capital improvement program (CIP) as follows:

- A. 10-Year Disbursement Plan – the cash disbursement based capital plan is utilized to forecast the timing and amount of capital financing, which is the primary basis for projected retail rate increases. The Board of Directors is asked to approve a 10-year disbursement of \$3.75 Billion.
- B. Lifetime Budget – the project lifetime budget reflects the total costs of each project active during the 10-year planning period. These costs include historical and projected spending, and project contingencies. The Board of Directors is asked to approve a lifetime budget of \$10.9 Billion.

The Committee will recommend the Action Item to the full Board.

IV. OTHER BUSINESS/EMERGING ISSUES

None.

V. ADJOURNMENT

Meeting adjourned at 11:20 a.m.

Follow-up Items

None.



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

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

**MEETING MINUTES
THURSDAY, NOVEMBER 17, 2016**

Present Board Members

Rachna Butani Bhatt
Howard Gibbs
Matthew Brown, Board Chairman

Present D.C. Water Staff

George Hawkins, General Manager
Charles Kiely, Assistant General Manager
for Customer Care and Operations
Henderson Brown, General Counsel
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, Assistant General Manager for Customer Care and Operations, reported that the coliform testing was at zero for October and up to November 17. He stated that he is very pleased, especially since the past summer was quite warm and they typically see some positives in the fall. Everything is good on the water distribution and water treatment fronts.

B. Lead and Copper Rule Monitoring

Mr. Kiely stated that for the first time in about 10 years of lead and copper reporting, at this early date in the monitoring period they have now receives a sufficient number of samples, 110. They are at the 90 percentile, 3.4 part per billion, which is excellent. Mr. Kiely said that he thinks this is tied in with what is going on nationally, so people are more concerned and interested in testing. In the past they have struggled to get the number of samples required.

III. Fire Hydrant Upgrade Program

David Wall, Manager of Distribution, reported on the Fire Hydrant Upgrade Program and the out of service hydrants. Out of approximately 9,500 public fire hydrants, 54 were out of service, of which 34 are defective. They are continuing to focus on those and the length of time they are out of service. This is well below the 1 percent (.36 percent) ceiling. Of the 34, 20 are due to construction or temporary obstruction.

There were no areas on the map which indicated clusters of out of service hydrants.

IV. Asset Management Program Update

Craig Fricke, Manager of Enterprise Asset Management, reviewed the topics covered in his previous briefing and presented information on the KANEW, a long range/strategic planning model for renewal of water and sewer mains. It also is a system-wide statistical model that predicts renewal needs and timing for different pipes and facilitated the development of an application, a risk tool, to determine the risk score for every water and sewer pipe in the D.C. Water system. Mr. Fricke said that he will also talk about the road ahead. They work to make sure D.C. Water is spending the right money at the right time and on the right things. During the initial phase of the program they developed an Enterprise risk framework and set up a governance structure. They talked about Enterprise level initiatives, including the strategic outcome metrics and a benchmarking project that they are participating in.

Mr. Fricke informed the Committee that KANEW was developed in cooperation with the Water Research Foundation. It uses the anticipated life expectancy and age distribution of the pipes to calculate annual renewal needs. He presented a chart that showed the age distribution of D.C. Water's sewers and that most are between 60 and 110 years old, with a median age of about 80 years. Mr. Fricke summarized other charts that showed that D. C. Water should be renewing about 14 miles of sanitary sewer a year and decreasing it to about 8 miles a year over time, focusing on mostly vitrified clay pipes. Over time this will reduce the median age of the pipes in the system from 80 plus years to about 45 years and increase the residual life from just over 25 years to about 45 years.

For more details on KANEW, the meeting minutes and materials are on the D.C. Water website.

Mr. Fricke stated that their focus now is to finalize the initial Asset Management Plan which documents all the work they have done to date and the tools they have used. The bulk of their efforts so far should be substantially complete by March or April 2017. The remaining funds will be used to assist on a task level basis to help implement and integrate the tools into existing programs. They expect capital work to continue to develop and establish the Asset Management Program over the next couple of years within the existing budget.

Mr. Gibbs stated that the tool they are using does a great job in telling them which types of pipes need to be replaced. He asked Mr. Fricke how they determine exactly which pipes should be replaced, when it is possible that the selected section of a line never fails, but another section fails? How does this model help to prevent that? Mr. Fricke said that the risk tool is a pipe by pipe segment, so it allows you to prioritize your renewals by individual pipes by risk scores, segment by segment, valve by valve, manhole by manhole. It utilizes the same segmentation that is in the GPS.

Mr. Kiely stated that the fact sheet relating to a contract award to purchase meters contained an error in terms of the LSBE designation under prime. It is not a LSBE. The contract is to exercise an option year for large meters, 3 inches and above. He reported that the contract is only to buy meters, not for installation. The Committee recommended the contract for Board approval.

Mr. Kiely presented the status for the procurement of the Customer Information System (CIS) Project Management (PM) Services. The contract documents have been finalized. The Committee recommends the contract for Board approval. Details are contained in the fact sheet.

After conclusion of business brought before the Committee, Ms. Butani Bhatt adjourned the meeting.



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

Board of Directors

Audit Committee

Friday, November 18th, 2016

9:30 a.m.

Meeting Minutes

COMMITTEE MEMBERS PRESENT

Nicholas Majett, Chairman
Matthew Brown, Board Chairman
Bonnie Kirkland, Committee Member

DC WATER STAFF PRESENT

Biju George, Chief Operational Officer
Henderson Brown, General Counsel
Meena Gowda, Principal Counsel
John Madrid, Controller
Linda Manley, Secretary to the Board

On the Phone:

Ellen Boardman, Committee Member

INTERNAL AUDIT STAFF PRESENT

Dan Whelan, RSM US LLP
Charles Barley, Jr., RSM US LLP
Jill Reyes, RSM US LLP
Kelly Johnson, RSM US LLP
Sophie Tomeo, RSM US LLP

EXTERNAL AUDIT STAFF PRESENT

Paul Geraty, KPMG
Richard McLean, KPMG

Call to Order (Item 1)

Mr. Nicholas Majett called the Audit Committee meeting to order at 9:32 a.m.

External Audit Status Update (Item 2)

Mr. Richard McLean provided a brief status update of the financial statement audit currently being conducted. The final stage of test work is currently on-going and good progress is being made. DC Water staff have been very cooperative and all requests have been processed quickly. No significant findings have been identified to date. The planned issuance date of the financial statements is December 20th, 2016. KPMG plans to issue the Comprehensive Annual Financial Report (CAFR) on or around January 20th, 2017 and the single audit report on or around February 20th, 2017.

Internal Audit Update (Item 3)

Mr. Dan Whelan provided a review of the agenda and led the Committee through the FY 2016 Internal Audit Status Update. Reporting is in-process for the Customer Billing and Collections audit, and two other reports are complete and awaiting issuance due to another matter to be discussed in Executive Session. Remediation Follow-Up Procedures and Hotline Management are on-going.

Ms. Sophie Tomeo presented the status of prior audit findings. For audit findings prior to FY 2015, there are five action deferred items related to union approval of policy, as well as six open items including maintenance services, GIS mapping, and warehouse operations which are all tied to the Asset Reliability Program. For FY 2015 audit findings, there is one action deferred item also related to union approval of policy as well as six open items including an intellectual property item which is pending development of procedure, and five IT follow-up that are to be discussed during the executive session. FY 2016 follow-up testing has begun and will be reported to the Committee at the next regularly-scheduled meeting in January.

Ms. Kelly Johnson followed with an update on the COR/COTR training and compliance monitoring implementation by management per the Contract Monitoring & Compliance Audit Part II findings. These findings were presented to the Committee at the previous Committee meeting in July and it was requested to have periodic updates on the management action plan. The action plan consists of three phases. Phase one has been completed. Management has updated the COTR list for all active contracts, issued new COTR Designation Letter for all 160 active goods and services contracts, and drafted templates for the Checklist and Vendor Compliance Report. The first report will be due December 30th, 2016 and updates will be required quarterly. This will also be a requirement for all contract renewals from January 1st, 2017. Phase two is providing COTR Training, which is still in process as market research is underway. Phase three will be to implement the automated vendor performance and compliance monitoring application. A Business Case with funding was approved on September 29th, 2016 and solicitation to procure the application will be issued in November 2016. A timeline for all three phases was provided. Mr. John Boseley clarified questions from the Committee.

Ms. Johnson then took the Committee through the Blue Horizon 2020 Strategic Plan Monitoring Internal Audit. She detailed that management monitoring was the focus of this audit, and RSM took an in depth look at the current goals as well as the original implementation guide. The plan was then evaluated to see how closely it was followed compared to the implementation guide. RSM met with goal champions to determine if set milestones were being reached, as well as if goals were on track to being completed. Process improvement areas were identified and internal control enhancement recommendations were provided to improve the overall monitoring of the Blue Horizon Strategic Plan. Ms. Johnson followed, saying that there were no high risk observations

and only three in total – two being moderate and one being low risk. The first moderate risk observation was related to inconsistencies in monitoring, as excel spreadsheet is the primary system used to track milestone, goals and percentages complete. Some tasks were based on on-going or one-time items while others were on an annualized basis. DC Water management has committed to finding a different monitoring system to avoid these inconsistencies. The second moderate risk observation was that the Strategic Planning Committee was not meeting on a semi-annual basis and communication has become limited pertaining to progress of the Strategic Plan. Due to this lack of communication, the accountability of goal champions may been reduced. The management action plan is to ensure that the Strategic Planning Committee will convene on at least a semiannually basis and Management will modify the strategic plan reporting framework to include delayed, late, on-track, and completed goals, objectives, initiatives and milestones. Additionally, DC Water will engage the individual Committees which have oversight for individual strategic plan goals, which will include reporting quarterly on the progress of their respective strategic goal. Lastly, the one low risk observation was that there were some previous goal champions that have since left the Authority and a new champion was not assigned. DC Water will be assigning new champions and co-champions to these goals. Biju George said that management agrees with the findings and that they are looking into an automated system. Ms. Sarah Neiderer clarified questions from the Committee on the use of an automated tracking tool.

Ms. Jill Reyes then led the Committee through the Hotline Update. She said that twelve new cases had opened since the last Committee meeting. There were nine calls received, none of which were fraud claims. There are currently ten cases open. She also mentioned that the quarterly meeting with the Office of General Counsel, Labor Relations and Department of Security was held. In FY 2016, a total of 36 calls were received in which ten were fraud claims. The number of FY 2016 calls matches the total number of calls received during the last two fiscal years, and the hotline traffic is increasing. One fraud claim is still open and will be discussed in the executive session. Twenty-nine of these calls have been closed and only four items required corrective action. Others were closed with the determination that corrective action was not necessary or sufficient information was not provided by the caller. In FY 2017, four calls have already been received. The Committee then asked about the status of the hotline database, as it had previously been down. Ms. Reyes explained to the Committee that the vendor software that populates notes about the calls is currently down, so an excel spreadsheet has been utilized. She added that there have been no complaints from callers about being unable to reach the hotline from their end.

Mr. Dan Whelan followed with the FY 2017 Proposed Internal Audit Plan. He detailed that the risk assessment has been updated from previous years as RSM and management look to prioritize audits based on what is occurring at the Authority. This prioritization will be based upon likelihood, risk factors and timing. He explained that RSM is hoping to have ultimate approval of the plan and told the Committee to keep in mind that there is

roughly 10% of annual hours set aside in case the scope of an audit is expanded or additional projects are asked to be undertaken. Mr. Whelan then took the Committee through an anticipated timeline of all FY 2017 audits and explained that it is subject to change. Ms. Reyes stated that a preliminary FY 2018 audit plan has also been established, as there are many initiatives across the Authority to consider.

Mr. Whelan provided a brief overview to the Committee of the Internal Audit accomplishments during FY 2016. He also reminded the Committee that RSM was looking for approval of the Audit Plan as presented. The approval does not require a motion to be made, so the Committee discussed and came to a consensus approval of the FY 2017 Audit Plan.

Executive Session (Item 4)

There was a motion to move into Executive Session by Ms. Kirkland to discuss legal, confidential, and privileged matters pursuant to Section 2-575(b)(8) of the D.C. Official Code. The motion was seconded by Mr. Brown and motion carried. The room was cleared of non-Executive members and all public individuals. The Audit Committee went into Executive Section at approximately 10:11am.

Adjournment (Item 5)

The Board moved back into public session. The Audit Committee meeting adjourned at approximately 11:00am.



CEO and GENERAL MANAGER'S REPORT

George S. Hawkins – December 2016

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Interpretation of Charts A

Color Key

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

Message from the CEO/GM

In this season of Thanksgiving, I want to express the heartfelt gratitude I feel for the opportunity you have given me to serve in this great organization. I also want to offer my heartfelt holiday greetings to the Board – the most hard-working and proficient volunteer Board that I have ever served with in my career! To seize that opportunity, we have kept busy!

Blue Drop

After the historic approval by the Board to authorize me to form Blue Drop at the November Board meeting, we filed the appropriate papers to form Blue Drop, LLC in the District of Columbia on that same day. I am pleased to post the incorporation certificate in my office. As we have discussed at length, and as directed in the authorizing resolution, DC Water is the only member of Blue Drop, is the only party that could authorize the creation of any new members, and has established the purpose of Blue Drop to offer services to other utilities and municipalities mainly to help reduce rate pressures on retail and wholesale customers of DC Water, and in so doing, advance the state of the water industry. I am now working diligently with Blue Drop's manager Alan Heymann to formulate a five person Board of Directors. I have tentative agreements from past DC Water Board Chair Willy Walker and from Harlen Kelly, the General Manager of the San Francisco Public Utilities Commission, to join the Board. I have target candidates for the remaining three positions and hope to announce the formation and members of the Board at the December Board meeting. Our plan is to hold the first meeting of the Board on December 8 – prior to the Board retreat. I look forward to reporting to the Board – through the Governance and Finance Committees at least – about the progress of Blue Drop in the months ahead.

Board Retreat

I am grateful to the Board that you have found time in the busy month of December to attend a retreat – starting on a day on which also have several Board Committee meetings, and then lasting over the evening through the following day (December 15 and 16). We are working hard to develop a thoughtful and forward-looking agenda with Chair Matt Brown that builds upon the Board's Blue Horizon 2020 Plan. Although we are still working through that agenda as I write this report, our tentative plan is to present a comprehensive challenge and opportunity statement on the evening of December 15:

- Leonard Benson will provide an overview of our capital planning – both to remind us of the progress we have made, and also to highlight some of the areas where we still need to do better. I am reminded of the enormous challenge we face, even as far as we have come in the last 20 years, to make up for nearly a century of deferred maintenance on an enormous range and depth of capital assets.
- Mark Kim will parallel Len's presentation with an overview of where we have come on the financial front – highlighting the improvements and successes we have achieved, yet also some of the affordability and revenue constraints that we face.

Our hope that these two perspectives will provide the context and grounding for conversation that will be held the following day on Friday, December 16 – which is how to overcome the challenge of capital needs in a revenue constrained world. The discussion will be centered on the three main topics:

Message from the CEO/GM

1. **Productivity.** How can DC Water ensure that every dollar of existing revenue is delivering the most effective outcomes? This is a matter of measurement, benchmarking and the relatively maturity of each business unit.
2. **New Revenue.** How can DC Water secure new revenue from non-ratepayer sources? We will update and discuss our plans in three principal areas, including Blue Drop and new customer services and potential new targets of revenue (a fee on hotel rooms for example.)
3. **Ratepayers.** How can DC Water raise additional revenues from existing ratepayers – wholesale and retail, and should the emphasis on how much we collect from various categories of ratepayer be considered.

One element of this retreat that is new, at least in my experience, is that we plan a good slice of time to enable the Board to have a discussion without staff present – unless any particular member of staff would be invited to participate at the request of the Board. Matt wants to be sure the Board has the chance to make sure that issues and concerns are developed among the Board members themselves, either to be addressed at the Retreat or Board meetings to come in the New Year. Staff very much looks forward to working with the Board at the Retreat and further developing the exciting agenda we have for our future.

2018 Budget

We are pleased at the discussions and reviews we have conducted with various Board Committees – many meeting jointly – to review our proposed 2018 Operating and Capital budgets, including our ten-year financial plan and capital projections. This is the first year we are proposing a budget when the related revenue projections are based on a rate and fee structure that is already established. The executive team and their staff have worked closely with Mark Kim and his excellent budgeting crew, led by Lola Oyeyemi on the operating side and Annie Fulton George on the capital budget – and for the first time in my tenure, we are proposing an operating budget that is reduced in total from the year before (with the exception of debt service.) I am grateful for the Board's continued diligence in developing and reviewing the budget and look forward to concluding this step in the process at the December Board meeting.

Awards

I also want to highlight that DC Water received two awards in the recent months which highlight both operational and financial excellence. First, the Blue Plains Tunnel project was awarded the Project of the Year Award for the mid-Atlantic from the Engineering News Record – in competition with 65 other impressive projects! This was the first of the mammoth projects that the Board has reviewed and approved in my tenure, and we should celebrate when we deliver such a complex undertaking on-time and on-budget. All too rarely does the public hear about the projects, overseen by a public authority and in collaboration with a superb team of private contractors, that are delivered successfully. I want to particularly thank our Chief Engineer Leonard Benson, the Chief of our Clean Rivers Program Carlton Ray, and his crack team led by Chris Allen and Moussa Wone.

I am also pleased to announce that DC Water's Environmental Impact Bond won the 2016 Non-Traditional Deal of the Year from The Bond Buyer – which is a national competition – and we will receive the award at a black tie gala event in New York City on the evening of the

Message from the CEO/GM

December 1st Board meeting. I am delighted that Chair Matt Brown and Finance Chair Tim Firestine can join us for the event – because achievements of this magnitude have required a close working partnership between the Board and the staff. I am impressed, once again, at the depth of review and oversight that the Board provides, linked – when appropriate – to courage and leadership in helping to set the direction of the enterprise. I have previously written about the impressive group that delivered the EIB – and we will highlight them once again at the meeting.

Transition

I find it hard not to recognize that clearly there is a big change coming to our country with a new Administration, and to the District as the capitol city. I have emphasized to our crew that we will continue to focus on the essential service before us and work with any administration and any new group of customers with as much vigor as we have to date. We will certainly monitor and engage with the transition and new Administration as appropriate to advance the interests of DC Water and our customers.

External Affairs

Website: Session totals for the period of October 16 through November 15, 2015
Total Sessions: 81,156
New Sessions: 45,463

Government Relations

External Affairs assisted with the preparation for Mr. Hawkins' testimony during the 10/24 hearing on Bill 21-0833, the "Non-woven Disposable Products Act of 2016". External Affairs continues to coordinate with Councilmember Cheh's staff as the bill continues through the legislative process.

Press Releases

- 11/7: Nannie Completes Anacostia River Tunnel
- 11/04: DC Water brings drinking water quality improvements to the Bloomingdale neighborhood
- 10/24: DC Water Supports Lead Poisoning Prevention Week
- 10/17: Keep your community and water supply safe by properly discarding unwanted medications

Media Coverage:

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

- [DC takes underground pipe inspections to the cloud](#)
(GCN / October 26, 2016)
- [More Boring News: Anacostia River Tunnel Is Now Complete](#)
(DCist / November 7, 2016)
- [This Government Bond Insures Against Failure](#)
(Governing Magazine / November 10, 2016)

Message from the CEO/GM

- [D.C. Council seeks to flush towelettes from city sewers](#)
(Washington Times / November 14, 2016)

Meetings/Presentations/Events

- DC Water attended the October monthly meeting of the Bloomingdale Civic Association to provide information on its local Small Diameter Water Main Replacement Project.
- As part of its Speakers Bureau, DC Water attended the DC Cooperative Housing Coalition's Annual Meeting to provide a general update on the DC Clean Rivers Project, and how this tunneling project ties in neatly with DC Water's storm water management efforts, both 'grey' and 'green'.
- In partnership with the Goodwill Excel Center, DC Water attended this organization's "Student Appreciation Day" to host an information table and engage adult learners about tap water and various environmental issues.
- As part of ongoing coordination efforts with the office of Ward 4 Councilmember Brandon Todd, DC Water attended his annual State of the Ward 4 Senior Address to provide information and giveaways.
- DC Water hosted its final First Street Tunnel Forum to provide updates on remaining activities under this project.
- DC Water attended the November monthly meeting of ANC 8C to provide information on its Saint Elizabeths Water Tower Project.
- DC Water attended the November monthly meeting of ANC 8E to provide information on its Saint Elizabeths Water Tower Project.
- In support of Kipp Academy's Give Back Week, DC Water was in attendance, and also provided information and giveaways.

Drinking Water Marketing and Communications

- External Affairs presented at ANC 4A's monthly meeting about lead in drinking water and minimizing lead exposure on 11/1.
- External Affairs presented at ANC 8C's monthly meeting about lead in drinking water and minimizing lead exposure on 11/2.
- External Affairs presented at ANC 2C's monthly meeting about lead in drinking water and minimizing lead exposure on 11/14.
- External Affairs talked to residents about water quality during the State of the Ward 4 Senior Event on 10/27.
- External Affairs coordinated with the Community Engagement Campaign through MWCOG to promote Drug Take Back Day on 10/22.
- External Affairs participated in the monthly Community Engagement Campaign meeting with MWCOG and regional utilities to review upcoming movie theater ads promoting proper disposal of FOG, wipes and medications.

Customer Newsletter

Message from the CEO/GM

The November newsletter included a cover story on the Family Water Festival and another on DC Water Works. The GM Message covers the DC Water Works program. It also included a story to warn against putting fats, oils and grease down the drain. Finally, there was a story about the "Imagine a day without water" events.

Tours

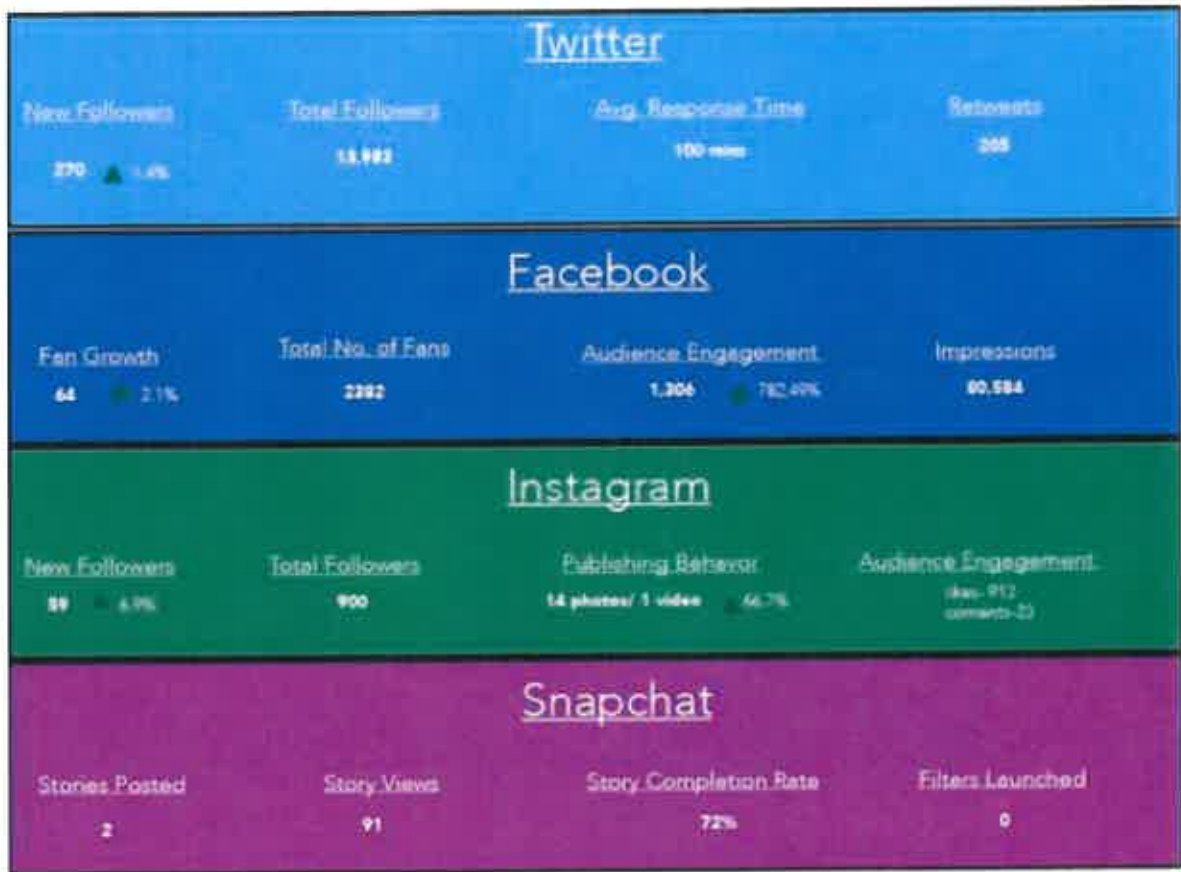
- 15 DCPS Students- Wheatley education Campus
- 25 members of the United States Navy
- 15 Students from the University of Maryland
- 12 students from Anne Arundel County Public High School
- 4 local engineers
- 11 students from Saint Ansalem's Abbey School
- 25 Students from John's Hopkins School of Advanced International Studies

Awards Submissions

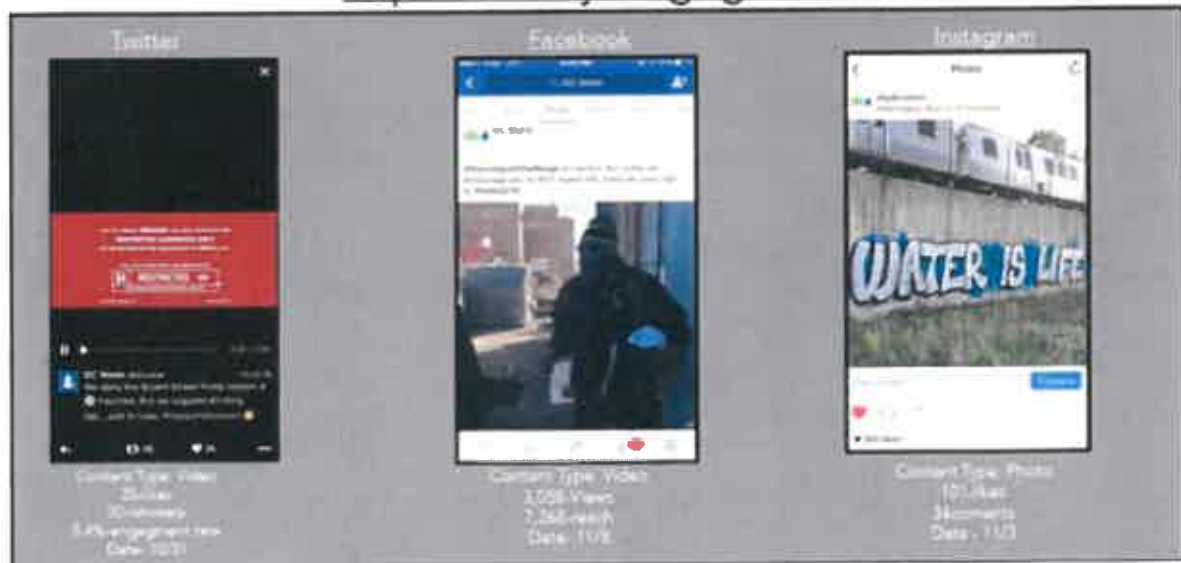
- George Hawkins awarded Public Officials Award by WEF at WEFTEC.
- DC Water won the AMWA Sustainable Water Utility Management Award.
- OEA spearheaded entry to EPA'S Climate Leadership awards, Individual category, for George Hawkins, September 29.

Message from the CEO/GM

Social Media



Top Posts By Engagement









ORGANIZATIONAL PERFORMANCE DASHBOARD (OCTOBER, 2016)

Financial Highlights

Net Operating Cash		Operating Revenues		Operating Expenses		Capital Disbursements	
Actual	25543	Actual	61	Actual	39	Actual	38
Target	6888	Target	50	Target	45	Target	41
	(\$ tho)		(\$ mil)		(\$ mil)		(\$ mil)
Operating Cash Balance		Delinquent Account Receivables		Core Investments Yield		Short Term Investment Yield	
Actual	160	Actual	2	Actual	1.16	Actual	0.66
Target	126	Target	3	Target	0.85	Target	0.25
	(\$ mil)		(%)		(%)		(%)



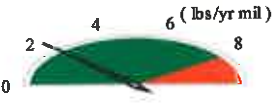

Customer Care and Operations Highlights

Call Center Performance	Command Center Performance	First Call Resolution	Emergency Response Time
 Oct 71 85 (% of calls rec)	 Oct 94 85 (% of calls rec)	 Oct 81 75 (% of calls rec)	 Oct 100 90 (% of calls rec)
Fire Hydrants out of Service	Fire Hydrant Insps. and Maint.	Fire Hydrants Replaced	Permit Processing within SLA
 Oct 34 96 (count)	1364 (count)	 Oct 8 250 (YTD count)	85 (%)

Low Income Assistance Program

Splash Contributions	Customer Assistance Program
Actual 9	Previous 51
Target 7	Current 44
(\$ tho)	(\$ tho)

Operational Highlights

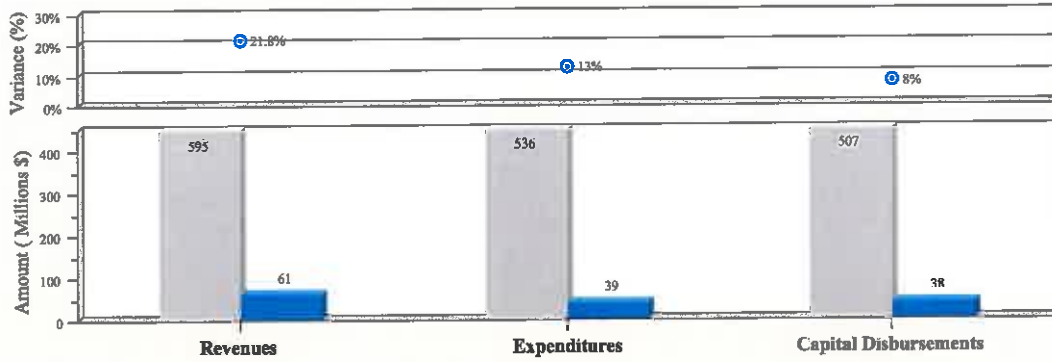
Lead Concentration	Total Coliform Rule	Biosolids Production	Total Nitrogen
 (ppb)	 (%)	432 (wet tons)	 (lbs/yr mil)
Plant Effluent Flow	Excess Flow	Water Main Leaks	Water Valve Leaks
 (gal mil)	0 (gal mil)	38 (count)	4 (count)
Non-Revenue Water	Sewer Main Backups	Sewer Lateral Backups	Dry Weather CSO
Sold 10	8 (count)	196 (count)	0 (events)
Purchased 14 (CCF mil)	Electricity Usage	Employee Lost Time Accidents	Vendor Payments
Recruitment Activity	16460 (MWh)	6 (count)	Actual 98
Filled 7			Target 97 (%)
Open 130 (count)			

FINANCIAL HIGHLIGHTS

FINANCIAL PERFORMANCE SUMMARY

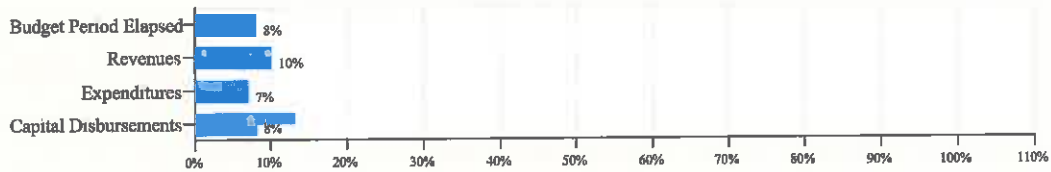
REVENUE, EXPENDITURE, CAPITAL DISBURSEMENT
(Cumulative Revenue, Expenditure & Capital Disbursements compared to Budget)

- Budget FY-2017 (in millions) - Revised
- Actual YTD Totals FY-2017 (in millions)
- Variance % : favorable / (unfavorable)



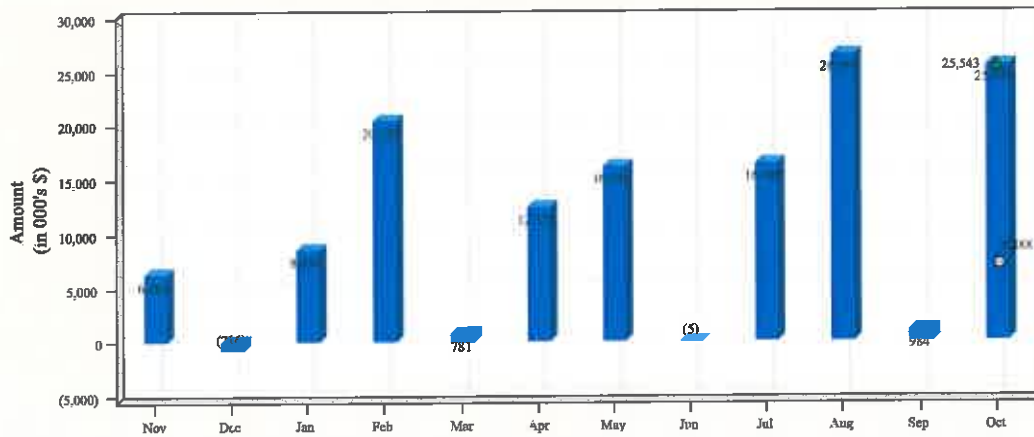
Year to Date Analysis

- FY-2016 Ratio (%)
- FY-2017 Ratio (%)



NET OPERATING CASH
(Monthly and YTD Net Operating Cash Provided / Used compared to Budget)

- Monthly Net Cash Provided/Used (in 000's)
- △ YTD Cumulative Net Cash FY-2017 (in 000's)
- YTD Budget FY-2017 (in 000's)



Net cash to date for October was above budget by \$19 Million

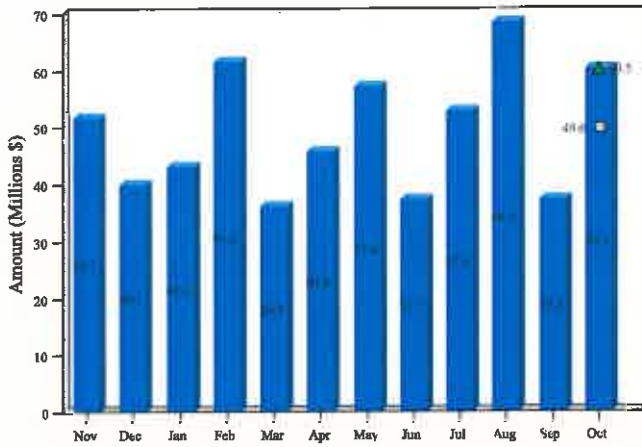
FINANCIAL HIGHLIGHTS

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

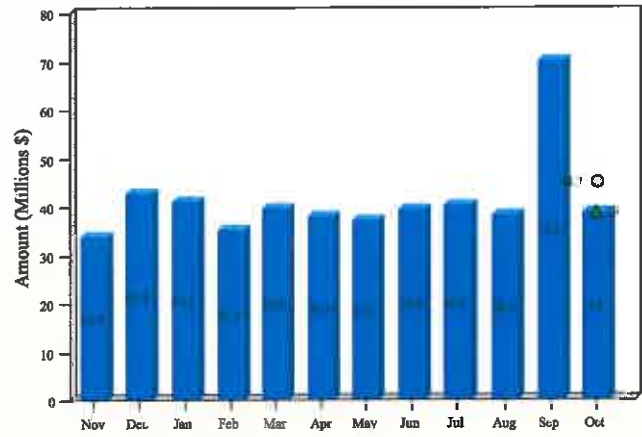


Revenue to date for October was above Budget by \$11 Million

OPERATING EXPENSES

Monthly & Cumulative Expenditure compared to YTD Budget

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



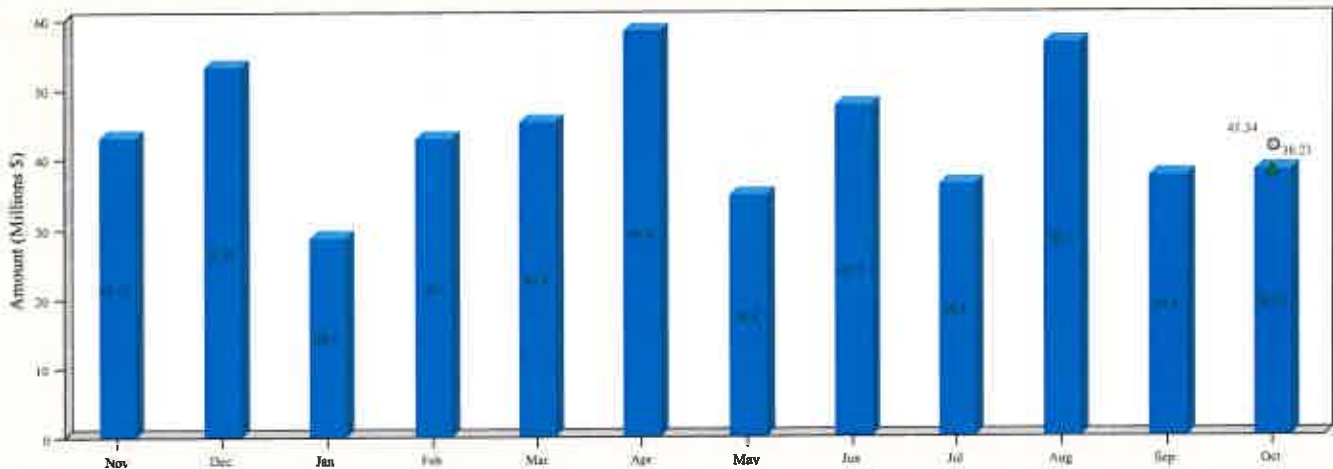
Expenditure to date for October was below budget by \$6 Million

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 October were below budget by \$3 Million

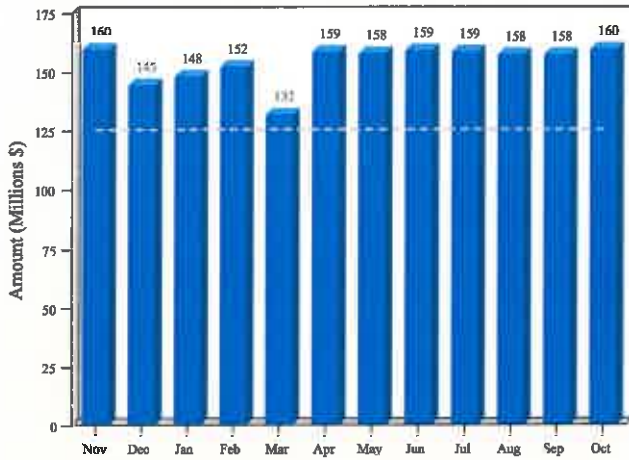
FINANCIAL HIGHLIGHTS

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)

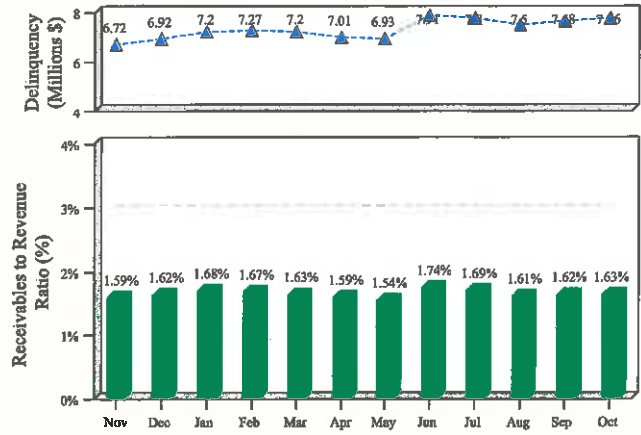


Cash Balance for October was above target by \$35 million

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%)



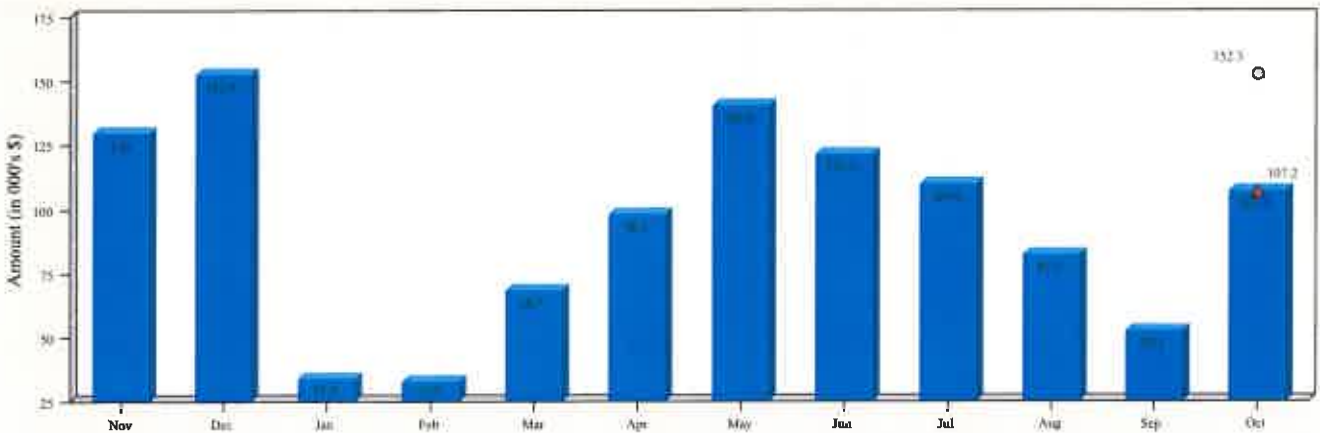
October Receivables to Revenue Ratio 1.6%, Delinquency \$7.8 Million

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 October were below Projected Budget by \$45,000

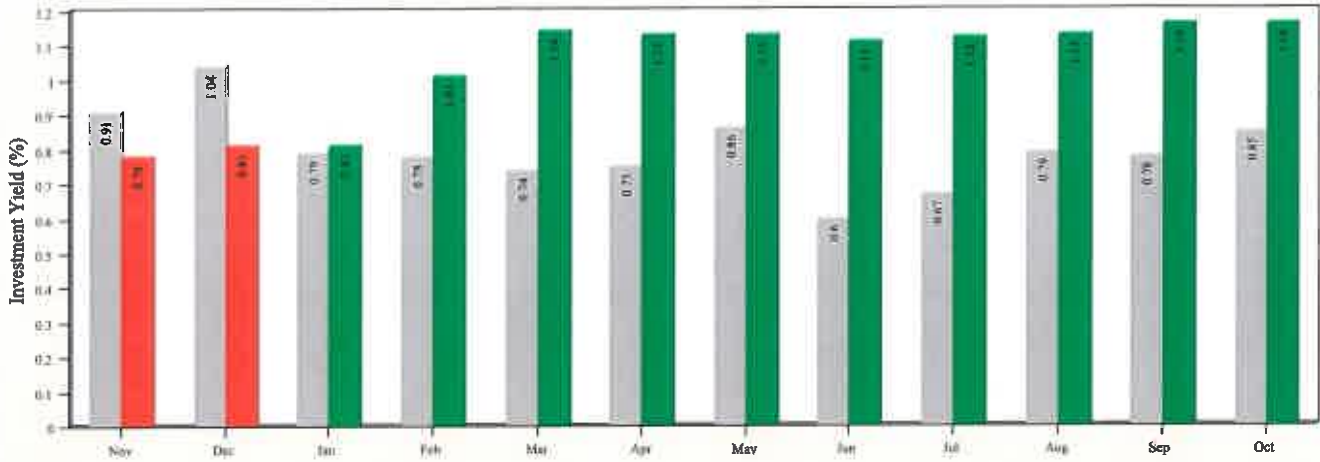
FINANCIAL HIGHLIGHTS

INVESTMENT YIELD

CORE INVESTMENTS YIELD

Monthly Yield compared to Merrill Lynch Benchmark

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

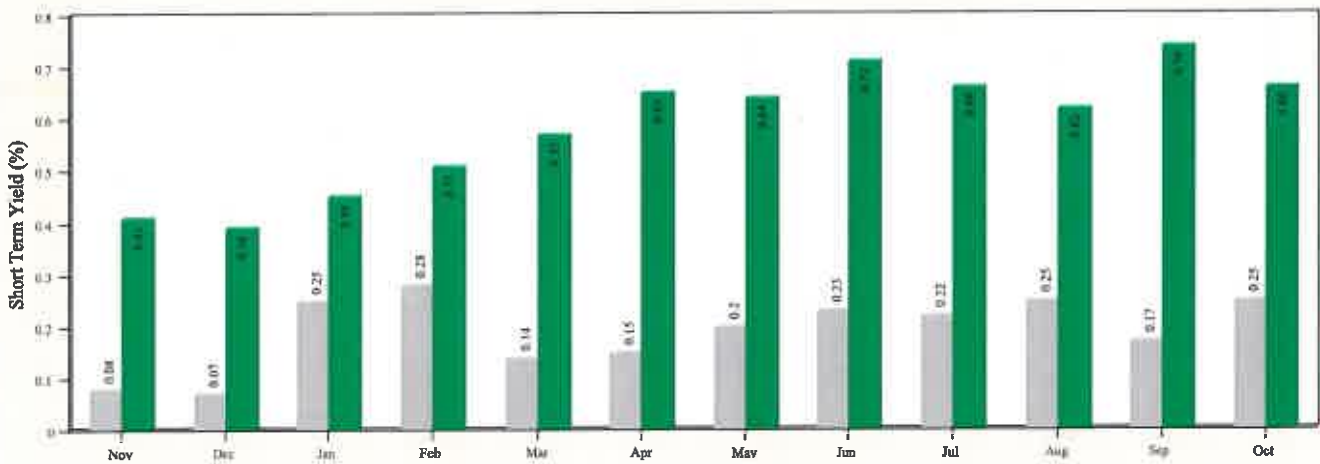


Yield for October was higher than the treasury index by 0.31%

SHORT TERM INVESTMENT YIELD

Short Term Yield compared to Merrill Lynch Benchmark

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



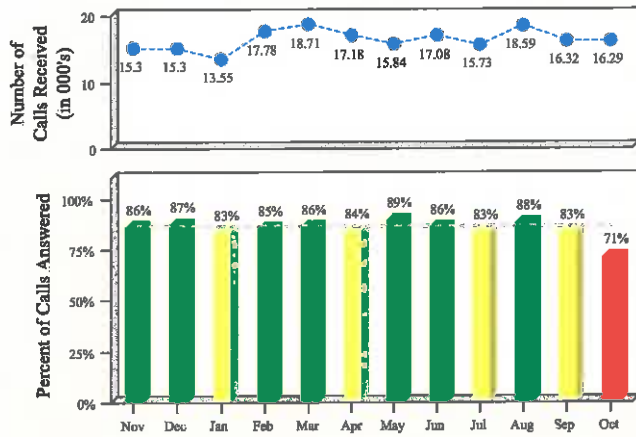
Short Term Yield for October was higher than the Merill Lynch yield by 0.41%

CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

CUSTOMER SERVICE

CALL CENTER PERFORMANCE
Calls Answered within 40 Seconds compared to Target

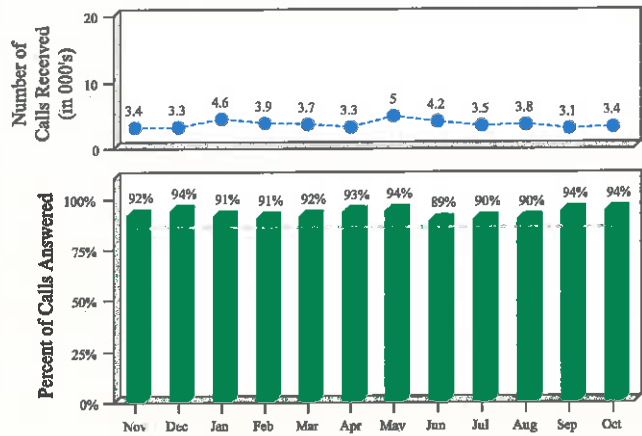
- Call Center: Calls answered (%)
- No of Calls - Call Center (in 000's)
- Target - Call Center (85%)



Performance for October was below target by 14%

COMMAND CENTER PERFORMANCE
Calls Answered within 40 Seconds compared to Target

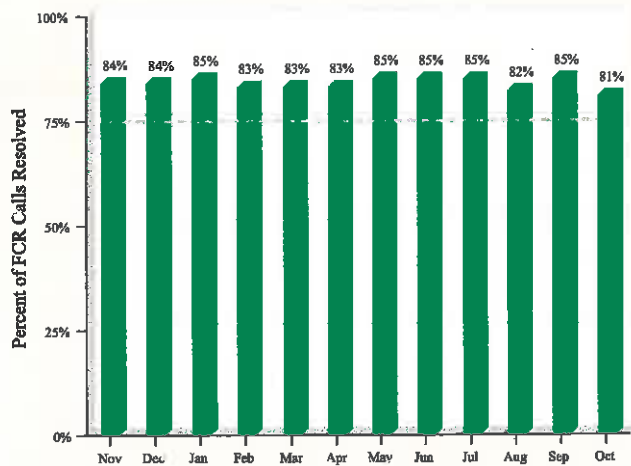
- Command Center: Calls answered (%)
- No of Calls - Command Center (in 000's)
- Target - Command Center (85%)



Performance for October was above target by 9%

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

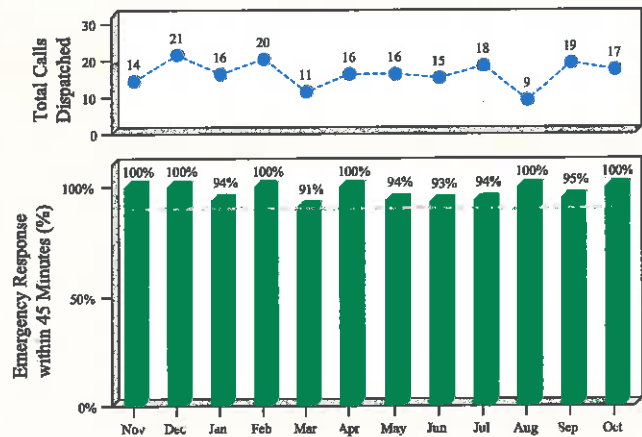
- FCR (%)
- FCR Target (75%)



Performance for October was above target by 6%

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

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



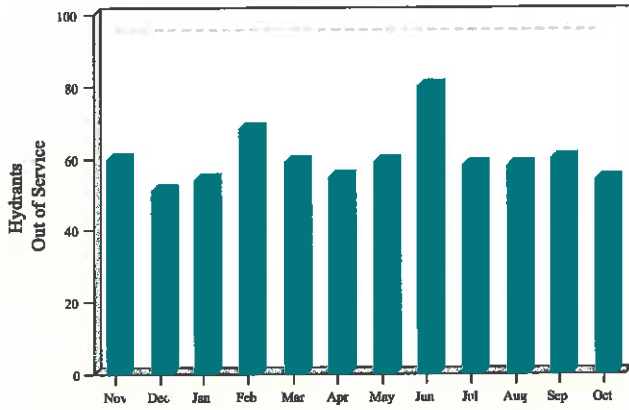
Performance for October was above target by 10%

CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

FIRE HYDRANTS

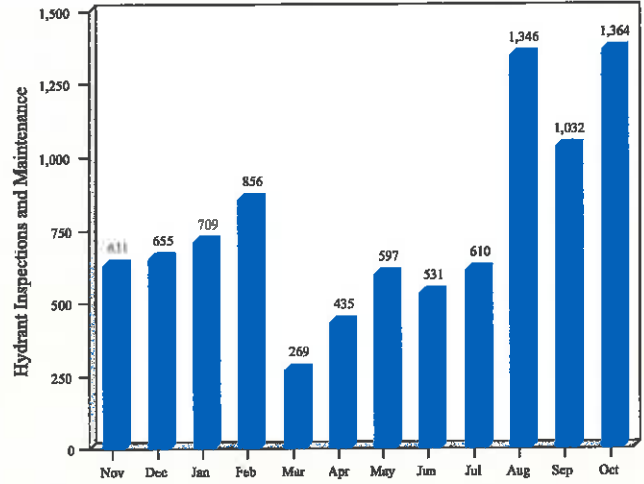
FIRE HYDRANTS OUT OF SERVICE (OOS)
Total Hydrants Out of Service against Target

- Out of Service Fire Hydrants (Defective OOS Hydrants)
- In-Operational - OOS Due to Inaccessibility or Temporary Work
- Out of Service Hydrants Target (96)



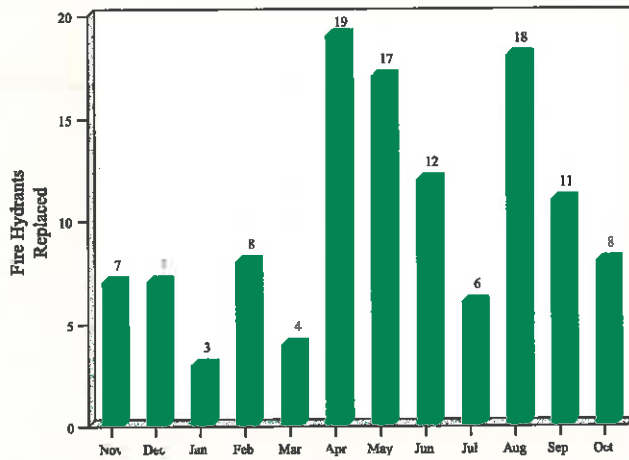
Fire Hydrant Inspections and Maintenance
Total Hydrant Inspection and Maintenance Work Orders Completed per Month

- Hydrant Inspections and Maintenance



FIRE HYDRANT REPLACEMENTS
Total Hydrants Replaced per Month

- Hydrants Replaced
- Annual Replacement Target (250)

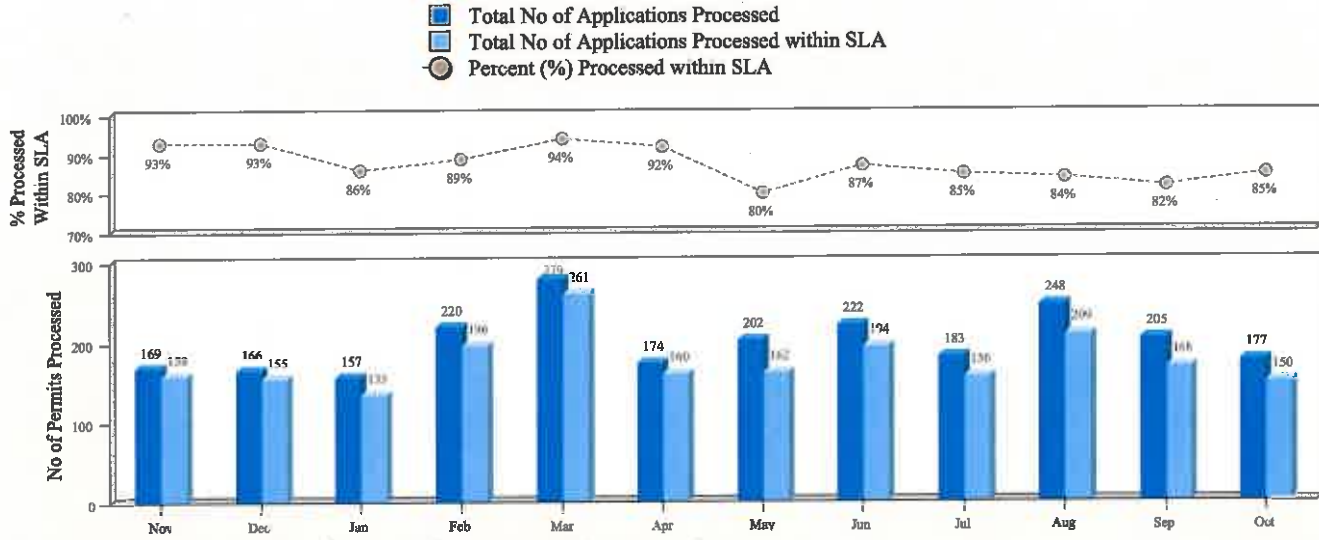


Total replacements as of October were 8 against annual projections of 250

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

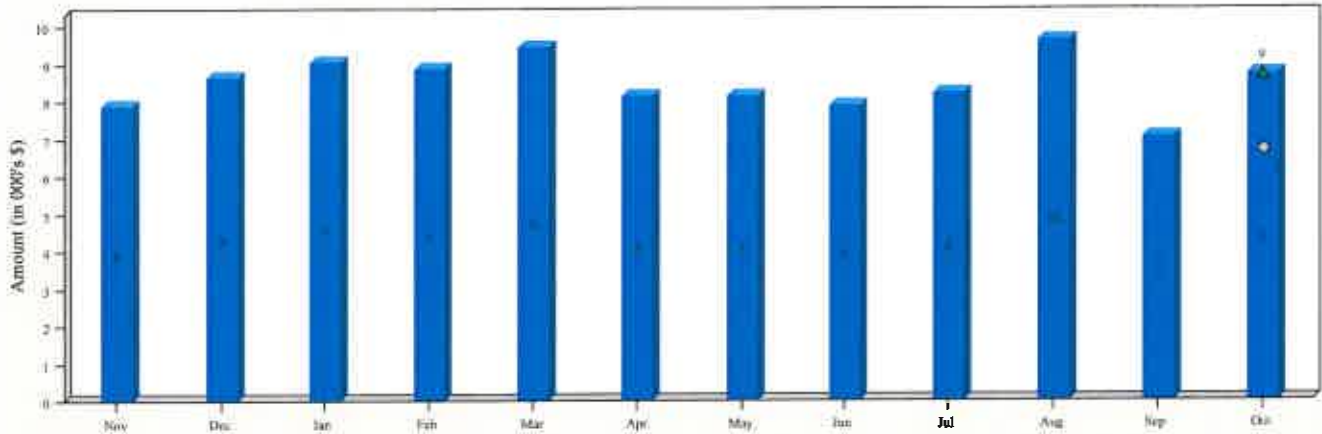
Permits not processed within SLA in October were 15% Note that different SLA's range from 7 days to 45 days

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)

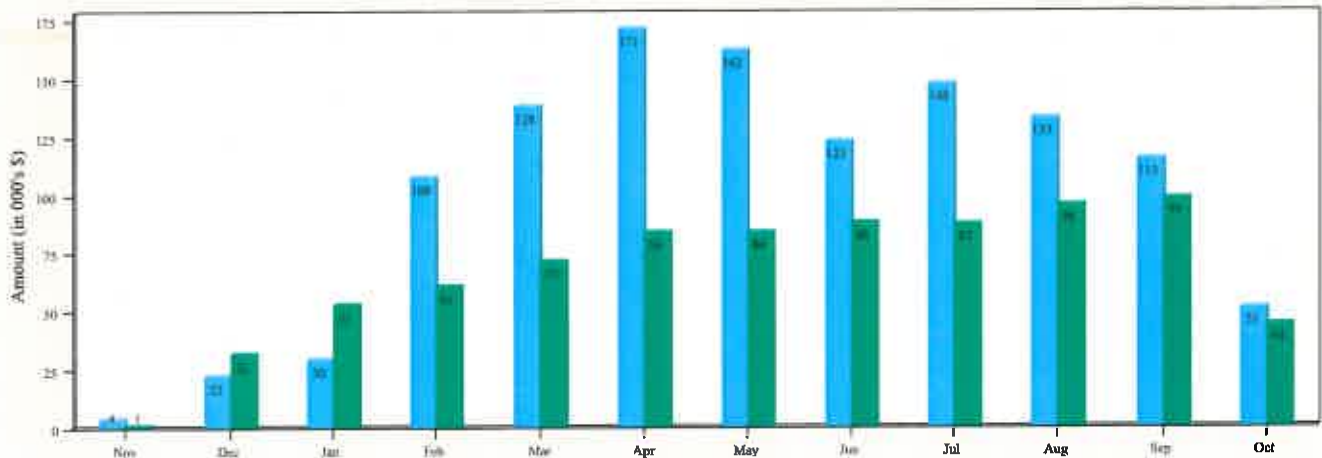


Total SPLASH Contributions to date for October were above target by \$2,000

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)

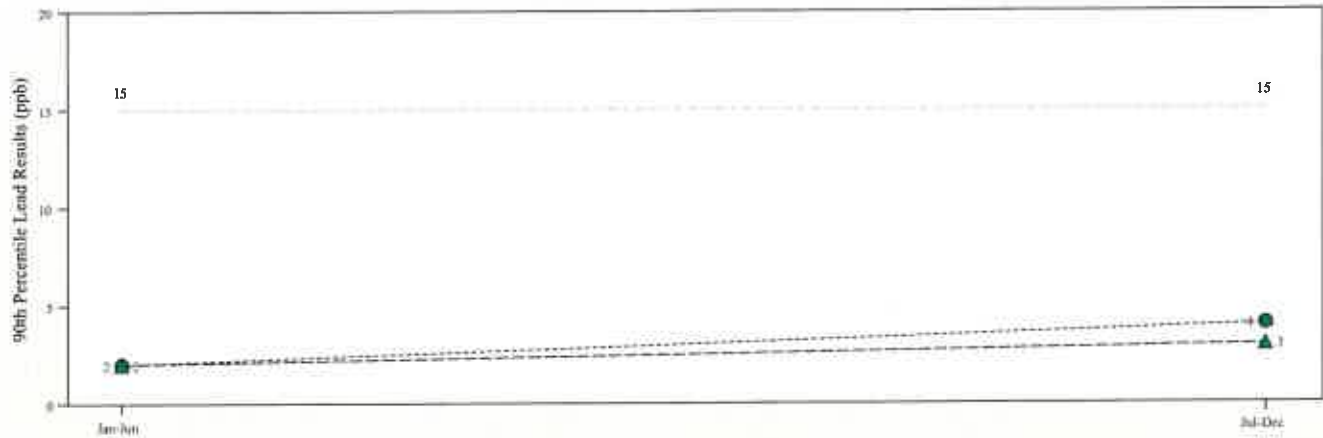


OPERATIONAL HIGHLIGHTS

DRINKING WATER QUALITY

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

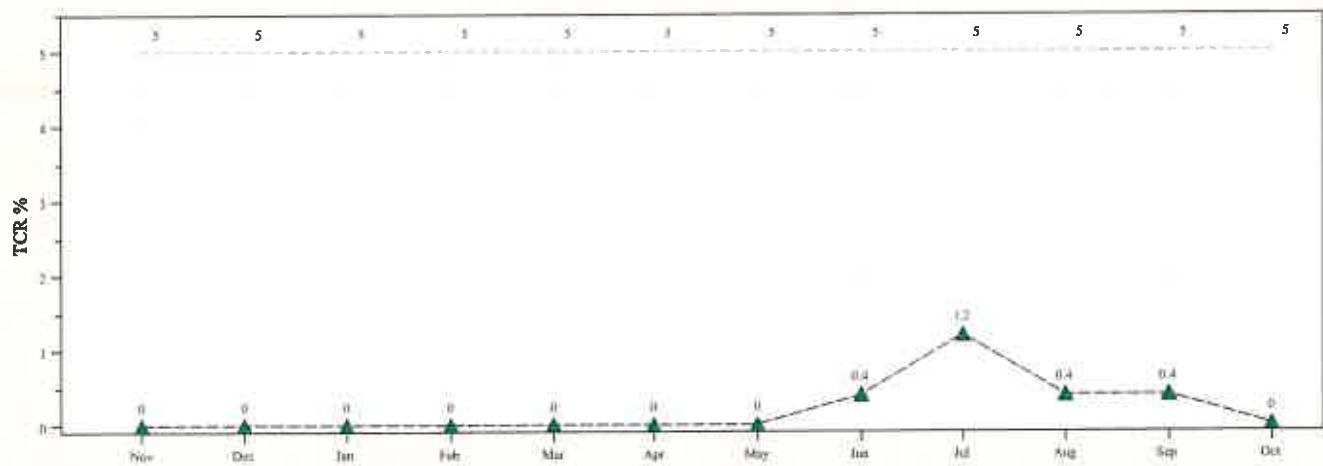
- 2015 LCR Results
- △ 2016 LCR Results
- Action Level : 15 parts per billion (ppb)



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%)

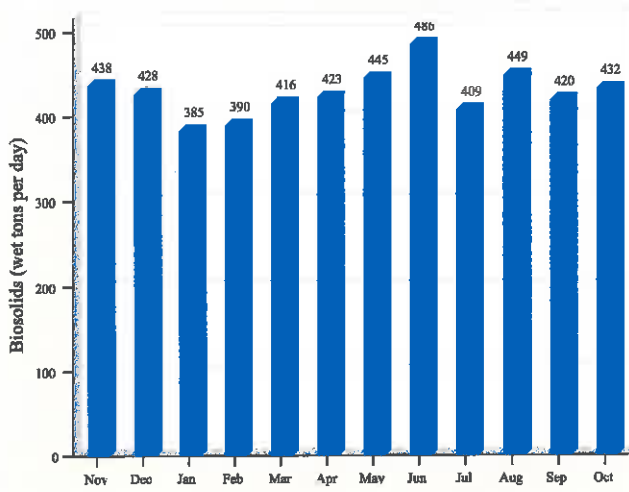


No Coliform Positives were recorded in October

OPERATIONAL HIGHLIGHTS

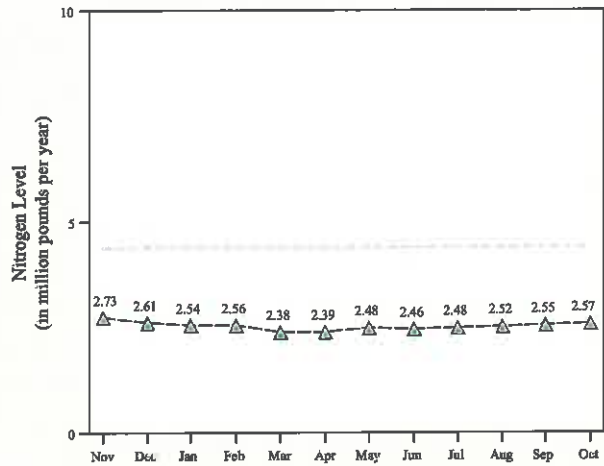
WASTEWATER TREATMENT

BIOSOLIDS PRODUCTION
Average Daily Biosolids Production



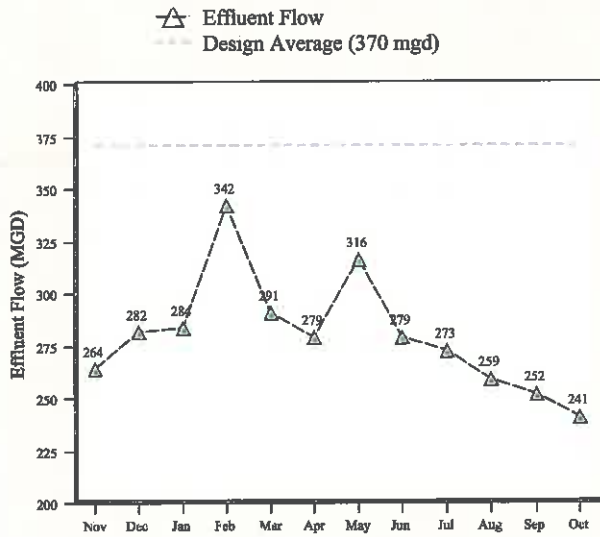
Biosolids Average Daily Production for October was 432 wet tons per day

TOTAL NITROGEN
Total Nitrogen compared to New Permit Levels



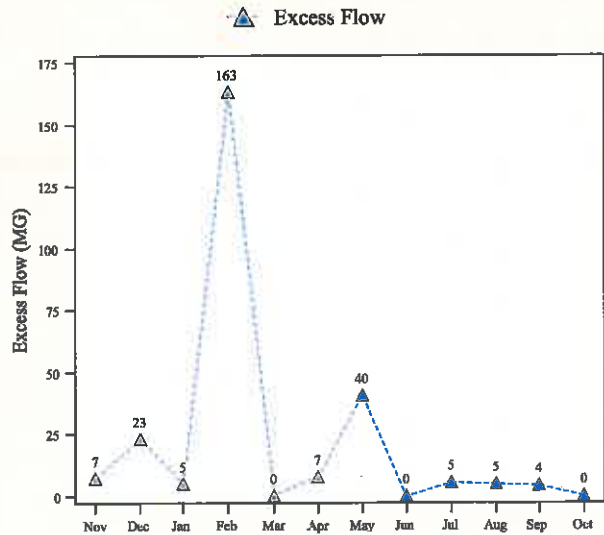
Nitrogen level for October was below permit by 1.8 million lbs/yr

PLANT EFFLUENT FLOW
Effluent Flow compared to Plant Design Average Limit



In October, Effluent flow was below design by 129 MGD

EXCESS FLOW

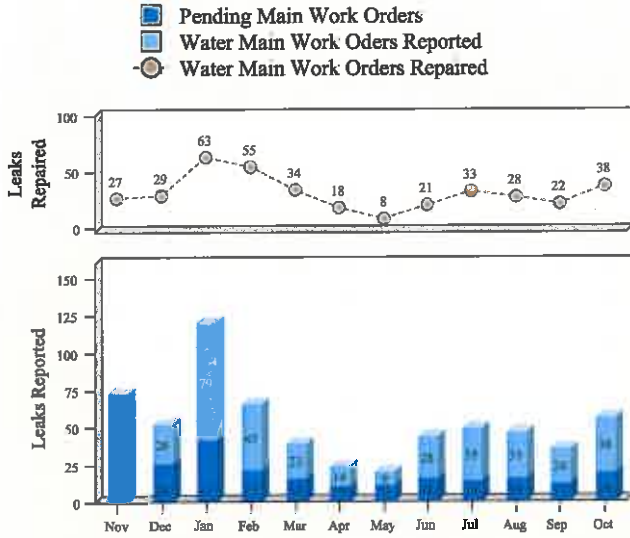


No excess flow was recorded in October 2016

OPERATIONAL HIGHLIGHTS

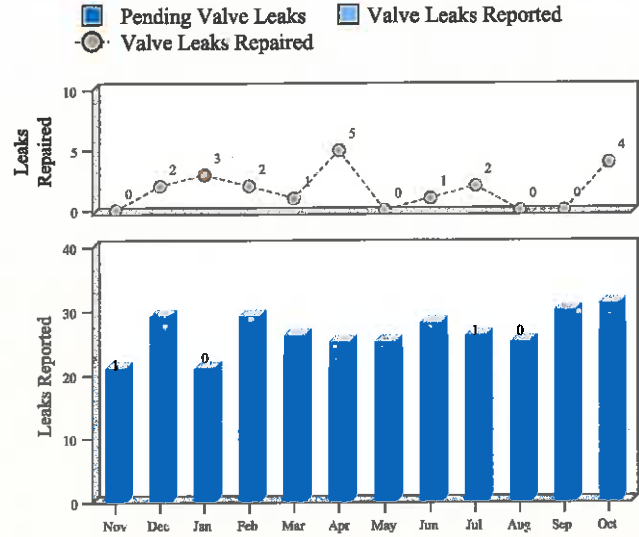
WATER DISTRIBUTION OPERATIONS

WATER MAIN LEAKS



There were 38 Water Main Work Orders reported in October

WATER VALVE LEAKS



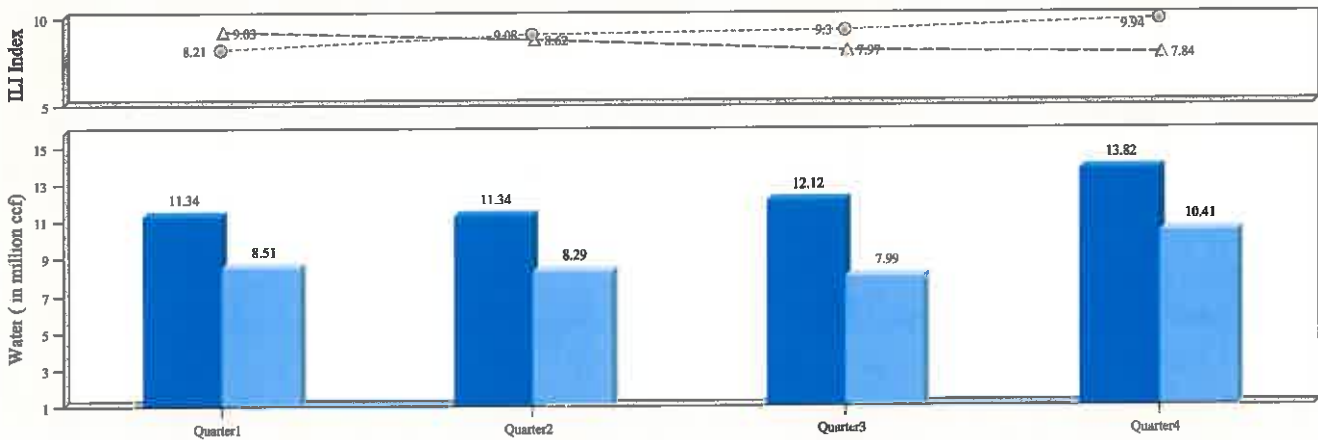
4 leaks were resolved in October

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

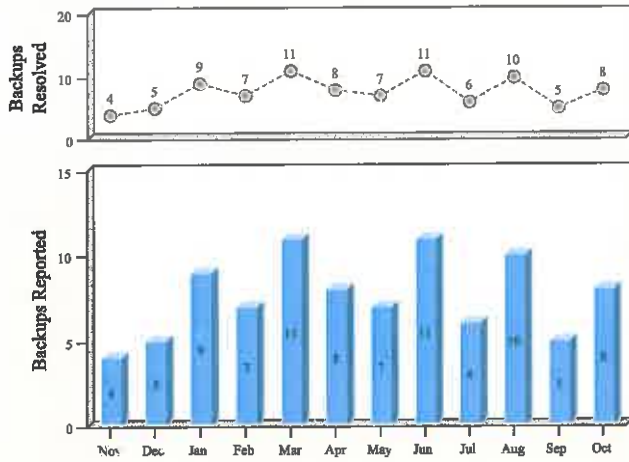
OPERATIONAL HIGHLIGHTS

SEWER SYSTEM OPERATIONS

SEWER MAIN BACKUPS

Sewer Mains Backed Up and Relieved per Month

- Pending Main Backups
- Main Backups Reported
- Main Backups Resolved

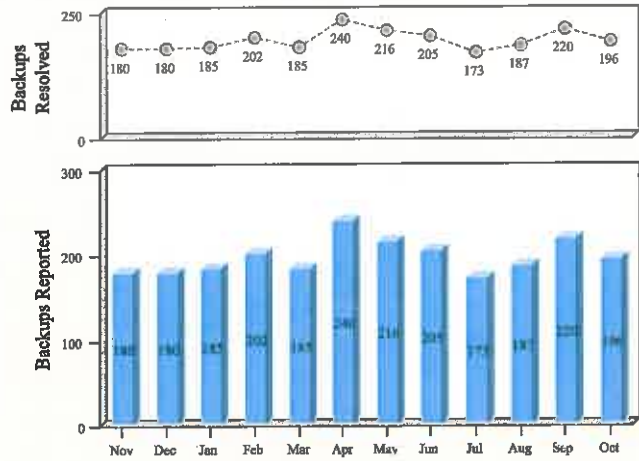


No pending main backups reported

SEWER LATERAL BACKUPS

Sewer Laterals Backed Up and Relieved per Month

- Pending Lateral Backups
- Lateral Backups Reported
- Lateral Backups Resolved



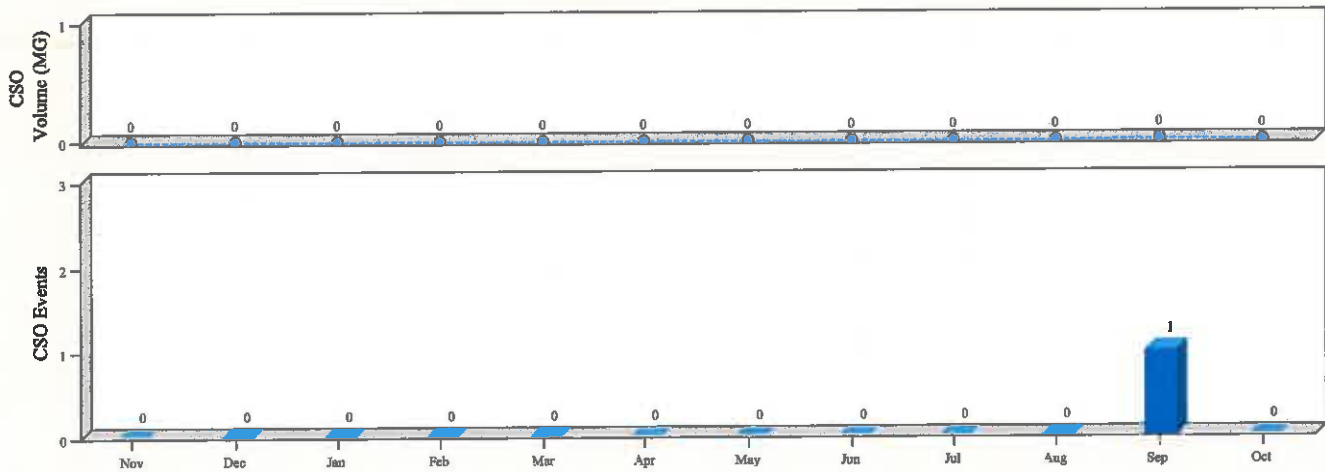
No pending lateral backups reported

COMBINED SEWER SYSTEM

DRY WEATHER CSO EVENTS

Combined Sewer Overflow Volume and No of Events per Month

- Number of CSO Events
- Overflow Volume (MG)



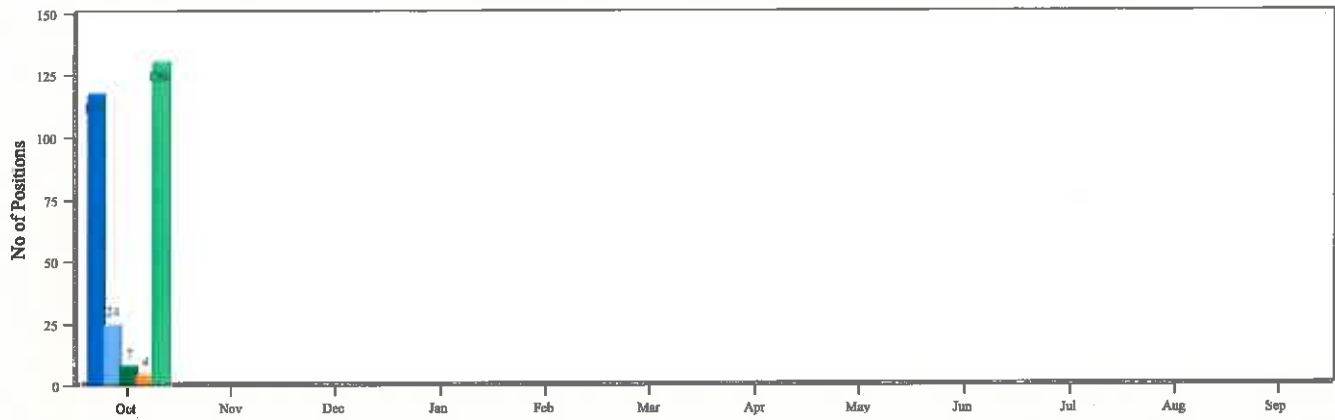
No dry weather Combined Sewer Overflow event was recorded in October 2016

OPERATIONAL HIGHLIGHTS

HUMAN RESOURCES

RECRUITMENT ACTIVITY

- FY-2017:Rolled Over Open Positions
- FY-2017:New Positions Added
- FY-2017:Positions Filled
- FY-2017:Positions Canceled
- FY-2017 Net Remaining Open Positions



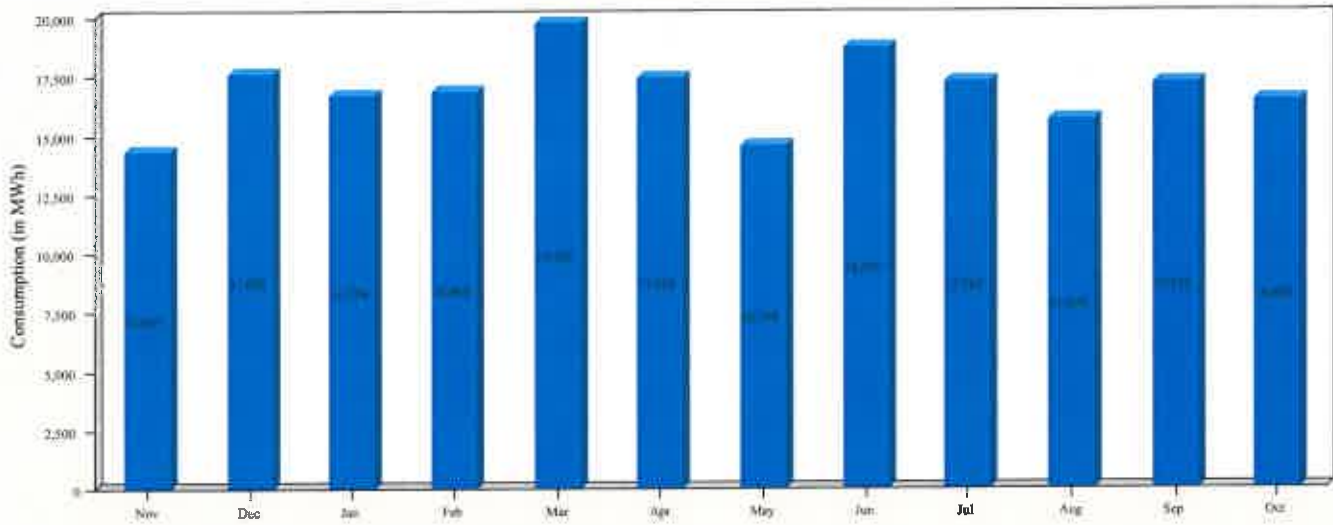
In October we began the month with 117 positions, received 24 new positions, filled 7, 4 cancellation and ended the month with 130 positions

OPERATIONAL HIGHLIGHTS

ENERGY

ELECTRICITY USAGE SUMMARY

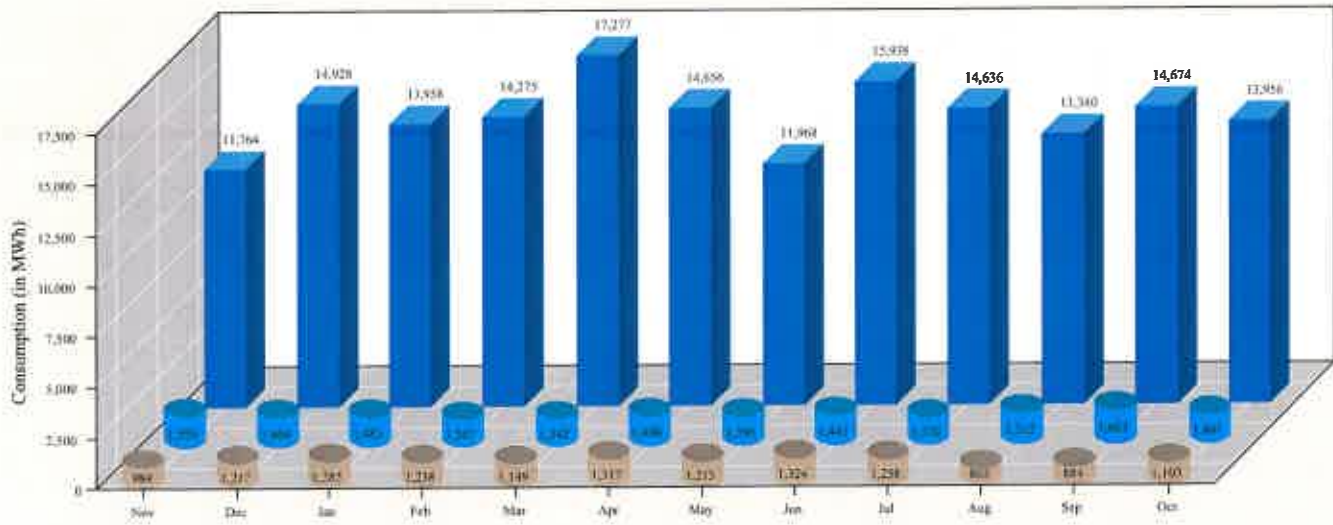
■ Total Consumption (MWh)



Electricity Consumption in October was 16,460 MWh

ELECTRICITY USAGE BY SERVICE AREA

■ Sewer Pumping ■ Water Pumping ■ Waste Water Treatment



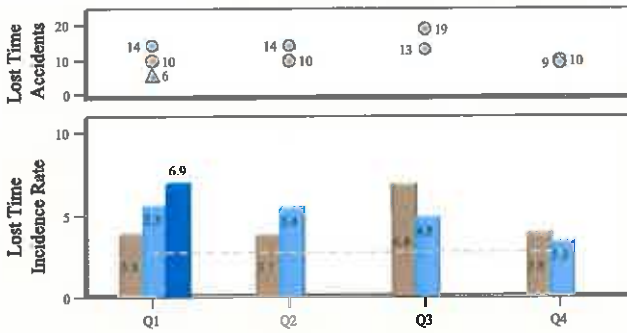
Wastewater treatment had the highest electricity consumption in October at 13,956 MWh

OPERATIONAL HIGHLIGHTS

SAFETY

EMPLOYEE LOST TIME INCIDENCE RATE

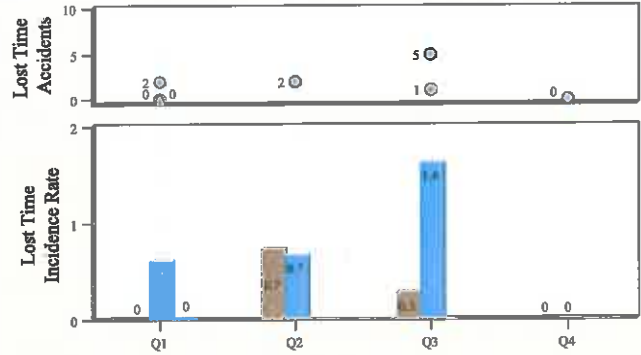
- FY-2015: LT Incidence Rate
- FY-2016: LT Incidence Rate
- FY-2017: LT Incidence Rate
- FY-2015: No of LT Accidents
- FY-2016: No of LT Accidents
- △ FY-2017: No of LT Accidents
- Target/National: LT Incidence Rate



In the 1st quarter, 6 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

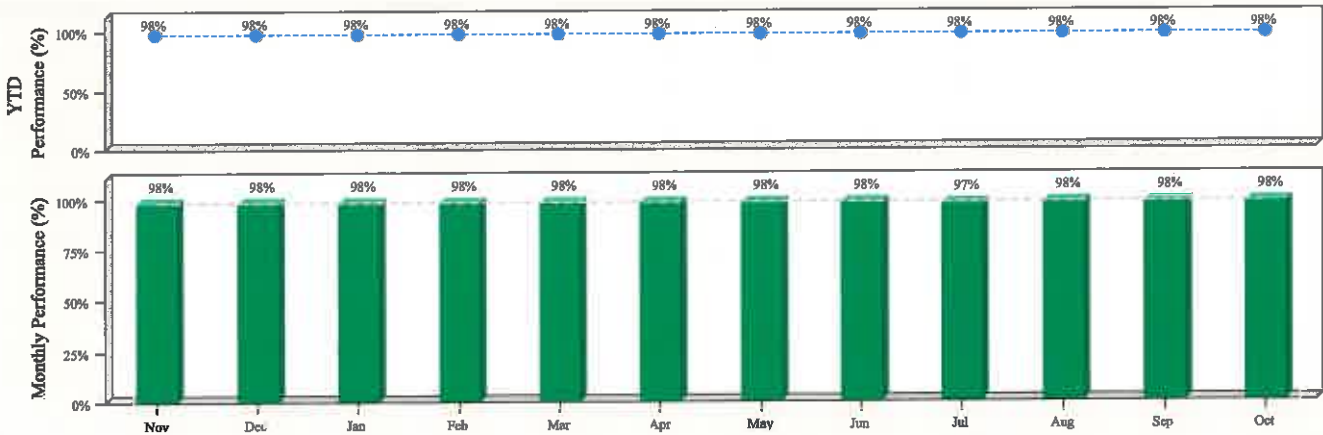


In the 1st quarter, No lost time accidents were reported

VENDOR PAYMENTS

VENDOR PAYMENT PERFORMANCE
Percentage of Invoices Paid within 30 days

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



Monthly performance for October 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>*</p> <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>**</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	Red- when the actual is higher than 5% of budget or target
Yellow- when the actual is within 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	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	Red- when the actual is higher than 5% of budget or target
Yellow- when the actual is within 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	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	Red- when the actual is higher than 5% of budget or target
Yellow- when the actual is within 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	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

226th Meeting of the DC Water Board of Directors

Thursday, December 3, 2016

Joint-Use Contracts

- 1. Resolution No. 16-96 – Execute an extension of Option Year Two of Contract No. WAS-12-066-AA-RE, Polydyne, Inc. The purpose of the option is to continue the delivery of polymer to the District of Columbia Water and Sewer Authority. The option amount is \$1,182,255. (Recommended by the Environmental Quality and Sewerage Services Committee 11/17/16)**

- 2. Resolution No. 16-97 – Execute Option Year One of Contract No. 15-PR-DWT 35, Polydyne, Inc. The purpose of the option is to continue the delivery of polymer to the District of Columbia Water and Sewer Authority. The option amount is \$1,860,603. (Recommended by the Environmental Quality and Sewerage Services Committee 11/17/16)**

- 3. Resolution No. 16-98 – Execute Contract No. 16-PR-DMS-43, Electric Motor & Contracting (EMC). The purpose of the contract is to provide inspection, repair, replacement, and upgrade services for various process assets located at all DC Water facilities. The contract amount is \$2,150,000. (Recommended by the Environmental Quality and Sewerage Services Committee 11/17/16)**

- 4. Resolution No. 16-99 – Execute Supplemental Agreement No. 1, Contract No. DCFA #428-WSA, AECOM. The purpose of the supplemental agreement is to continue providing construction management and related engineering services for the management of multiple major construction contracts at the Blue Plains Wastewater Treatment Plant. The supplemental agreement amount is \$5,664, 044. (Recommended by the Environmental Quality and Sewerage Services Committee 11/17/16)**

- 5. Resolution No. 16-100 – Execute Contract No. DCFA #473-WSA, Hazen and Sawyer. The purpose of the contract is to provide professional architectural/engineering and related services for the DC Water Blue Plains**

Advanced Wastewater Treatment Plant on an as-needed basis through individually negotiated task orders. The contract amount is \$6,000,000. (Recommend by the Environmental Quality and Sewerage Services Committee 11/17/16)

Non-Joint Use Contracts

- 6. Resolution No. 16-101 – Execute Option Year One of Contract No. 15-PR-CCO-50, Fasteners Rx, Inc. The purpose of the option is to continue purchasing new meters to replace existing meters that are at the end of their useful life. The option amount is \$980,000. (Recommended by the Water Quality and Water Services Committee 11/17/16)**

- 7. Resolution No. 16-102 – Execute Contract No. 15-PR-CCO-59, Vertex. The purpose of the contract is to provide for the purchase and implementation of a customer information system. The contract amount is \$19,338,768. (Recommended by the Water Quality and Water Services Committee)**

Presented and Adopted: December 1, 2016

SUBJECT: Approval of Fiscal Year 2017 - 2026 Ten-Year Financial Plan

**#16-92
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 ("DC Water") at its meeting held on December 1, 2016 upon consideration of a joint-use matter decided by a vote of ___ () in favor and ___ () opposed, to take the following action with respect to the Fiscal Year 2017 - 2026 Financial Plan.

WHEREAS, prudent utility financial management requires a long-term financial plan that integrates common elements of the ten-year capital improvement program, future capital financing plans, projected operating and maintenance budgets, revenue requirements and projected rate increases to support long-term capital and operating needs; and

WHEREAS, the Board, in Resolutions 11-10 and 13-57, adopted a series of financial policies in the areas of capital financing, long-term financial planning, and rate-setting to assure the short-term and long-term financial health of DC Water; and

WHEREAS, adherence to these financial policies has allowed the DC Water to receive strong bond ratings that will reduce debt service costs over the ten-year planning period; and

WHEREAS, consistent with the Board policies, the General Manager has prepared a ten-year financial plan in conjunction with the proposed FY 2018 operating and capital budgets; and

WHEREAS, the ten-year financial plan is based on assumptions detailed in the proposed Fiscal Year 2018 Operating and Capital Budgets; and

WHEREAS, the ten-year financial plan is consistent with projections appearing in the attached Schedules A, B and C of this resolution; and

WHEREAS, on November 15, 2016, the DC Retail Water and Sewer Rates Committee and the Finance and Budget Committee, respectively, met, reviewed and recommended that the Board adopt the ten-year financial plan as recommended by the General Manager.

NOW THEREFORE BE IT RESOLVED THAT:

1. The Board hereby accepts and approves the proposed Fiscal Year 2017 - 2026 Financial Plan that is supported by the attached Schedule A, B and C and the proposed Fiscal Year 2018 Operating and Capital Budgets.

This resolution is effective immediately.

Secretary to the Board of Directors

Schedule A

District of Columbia Water & Sewer Authority
FY 2017 - FY 2026 Financial Plan
(In 000's)

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
OPERATING										
Retail*	483,981	511,428	539,094	567,722	596,653	622,874	646,932	671,041	695,145	719,540
Wholesale*	81,468	76,028	78,308	80,658	83,077	85,570	88,137	90,781	93,504	96,309
Other	29,997	29,704	34,332	38,367	45,391	48,265	48,817	49,434	50,113	50,871
RSF										
Operating Receipts (1)	\$ 585,446	\$ 617,159	\$ 651,734	\$ 686,746	\$ 725,121	\$ 756,709	\$ 783,886	\$ 811,256	\$ 838,763	\$ 866,721
Operating Expenses	(320,531)	(320,146)	(332,435)	(342,089)	(352,028)	(362,264)	(372,803)	(383,654)	(394,828)	(408,333)
Debt Service	(167,733)	(185,480)	(199,647)	(217,567)	(236,478)	(246,866)	(254,748)	(262,073)	(269,392)	(276,713)
Cash Financed Capital Improvement	\$ (24,199)	\$ (35,260)	\$ (26,955)	\$ (28,386)	\$ (29,833)	\$ (31,144)	\$ (32,347)	\$ (33,552)	\$ (34,757)	\$ (35,977)
Net Revenues After Debt Service	\$ 82,983	\$ 76,273	\$ 92,698	\$ 98,704	\$ 106,781	\$ 116,435	\$ 123,988	\$ 131,976	\$ 139,786	\$ 147,898
Operating Reserve-Beg Balance	162,652	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
Other Misc (Disbursements)/Receipts	(29,281)	(16,019)	(5,636)							
Customer Rebate			(5,000)	(5,000)	(4,000)	(7,000)	(8,000)	(8,000)	(7,000)	(3,000)
Transfers To RSF										
Transfers To DC PILOT Fund										
Pay-Go Financing	(76,434)	(60,254)	(82,061)	(93,704)	(102,781)	(109,455)	(115,988)	(123,978)	(132,786)	(143,144)
Operating Reserve - Ending Balance	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 141,554
Rate Stabilization Fund Balance RSF (2)	\$ (51,450)	\$ (51,450)	\$ (56,450)	\$ (61,450)	\$ (65,450)	\$ (72,450)	\$ (80,450)	\$ (88,450)	\$ (95,450)	\$ (98,450)
Senior Debt Service Coverage	489%	465%	545%	531%	518%	543%	538%	654%	681%	674%
Combined Debt Service Coverage	159%	163%	165%	168%	166%	166%	167%	169%	171%	174%
Actual/Projected Water/Sewer Rate Increases	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
*Operating Receipts \$ Increase/Decrease										
Retail	10,528	27,447	27,866	28,628	28,931	26,222	24,057	24,110	24,105	24,393
Wholesale	1,684	(5,440)	2,281	2,348	2,420	2,492	2,567	2,644	2,723	2,805
*Operating Receipts % Increase/Decrease										
Retail	2.2%	5.7%	5.4%	5.3%	5.1%	4.4%	3.9%	3.7%	3.6%	3.5%
Wholesale	2.1%	-6.7%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

(1) Includes interest earnings on senior lien revenue bonds' debt service reserve fund
(2) FY 2017 planned transfers of \$0.0 million to Rate Stabilization Fund maintains the total fund balance at \$51.45 million

Schedule B

**District of Columbia Water & Sewer Authority
FY 2017 - FY 2026 Average Residential Customer Monthly Bill**

	Approved										
Units	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	
DC Water and Sewer Retail Rates ⁽¹⁾	\$ 57.25	\$ 60.13	\$ 63.13	\$ 66.32	\$ 69.63	\$ 73.15	\$ 76.86	\$ 80.89	\$ 84.73	\$ 88.76	
DC Water Clean Rivers IAC	22.24	25.18	28.41	31.67	34.94	37.45	39.36	41.16	42.82	44.40	
DC Water Customer Metering Fee	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	
DC Water Water System Replacement Fee ⁽²⁾	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	
Subtotal DC Water Rates & Charges	\$ 89.65	\$ 95.47	\$ 101.70	\$ 108.15	\$ 114.73	\$ 120.76	\$ 126.38	\$ 132.01	\$ 137.71	\$ 143.32	
Increase / Decrease	\$ 4.63	\$ 5.82	\$ 6.23	\$ 6.45	\$ 6.58	\$ 6.03	\$ 5.62	\$ 5.63	\$ 5.70	\$ 5.61	
District of Columbia PILOT ⁽¹⁾	\$ 2.98	\$ 3.04	\$ 3.10	\$ 3.16	\$ 3.22	\$ 3.29	\$ 3.35	\$ 3.41	\$ 3.47	\$ 3.54	
District of Columbia Right-of-Way Fee ⁽¹⁾	1.05	1.12	1.12	1.12	1.12	1.12	1.12	1.18	1.18	1.20	
District of Columbia Stormwater Fee ⁽²⁾	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	
Subtotal District of Columbia Charges	\$ 6.70	\$ 6.83	\$ 6.89	\$ 6.95	\$ 7.01	\$ 7.08	\$ 7.14	\$ 7.26	\$ 7.32	\$ 7.41	
Total Amount Appearing on DC Water Bill	\$ 96.35	\$ 102.30	\$ 108.59	\$ 115.10	\$ 121.74	\$ 127.84	\$ 133.52	\$ 139.27	\$ 145.03	\$ 150.73	
Increase / Decrease Over Prior Year	\$ 4.70	\$ 5.95	\$ 6.29	\$ 6.51	\$ 6.64	\$ 6.10	\$ 5.68	\$ 5.75	\$ 5.76	\$ 5.70	
Percent Increase in Total Bill	5.1%	6.2%	6.1%	6.0%	5.8%	5.0%	4.4%	4.3%	4.1%	3.9%	

(1) Assumes average monthly consumption of 6.20 Ccf, or 4,638 gallons

(2) District Department of the Environment stormwater fee of \$2.67 effective November 1, 2010

(3) DC Water Water System Replacement Fee of \$6.30 for 58" meter size effective October 1, 2015

Schedule C

**District of Columbia Water & Sewer Authority
Retail Rates, Charges and Fees**

	Units	FY 2017	Approved FY 2018
DC Water Retail Rates Water (Residential Lifeline 0 - 4 Ccf)	Ccf	\$ 3.23	\$ 3.39
DC Water Retail Rates Water (Residential > 4 Ccf)	Ccf	\$ 4.06	\$ 4.26
DC Water Retail Rates Water (Multi-Family)	Ccf	\$ 3.62	\$ 3.80
DC Water Retail Rates Water (Non-Residential)	Ccf	\$ 4.19	\$ 4.40
DC Water Retail Rates Sewer	Ccf	\$ 5.71	\$ 6.00
DC Water Clean Rivers IAC	ERU	\$ 22.24	\$ 25.18
DC Water Customer Metering Fee	5/8"	\$ 3.86	\$ 3.86
DC Water Water System Replacement Fee	5/8"	\$ 6.30	\$ 6.30
District of Columbia PILOT Fee	Ccf	\$ 0.48	\$ 0.49
District of Columbia Right of Way Fee	Ccf	\$ 0.17	\$ 0.18
District of Columbia Stormwater Fee	ERU	\$ 2.67	\$ 2.67

Presented and Adopted: December 1, 2016
Subject: Approval of Proposed Fiscal Year 2017 - 2026 Capital Improvement Program

#16-93
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, ("DC Water") at its meeting on December 1, 2016, upon consideration of a joint-use matter, decided by a vote of ____ () in favor and ____ () opposed, to take the following action with respect to the Fiscal Year 2017 - 2026 Capital Improvement Program (10-Year Disbursement Plan and Lifetime Budget).

WHEREAS, Board Resolution #10-76 *Approval of Revised Rate Stabilization Fund Policy*, requires the General Manager to prepare an annually updated 10-Year Financial Plan, which includes a 10-Year Capital Disbursement Plan; and

WHEREAS, on November 3, 2016, the General Manager, Chief Financial Officer, Chief Operating Officer, and Chief Engineer briefed the Board members during the budget workshop on the Proposed 10-Year Disbursement Plan totaling \$3,751,623,000; and

WHEREAS, on November 15, 2016, the Finance & Budget and DC Retail Water & Sewer Rates Committees, in a joint meeting, reviewed the budget proposals and discussed in detail the budget drivers, strategic budget decisions, budget assumptions, and customer and operational impacts; and the Finance & Budget Committee recommended that the Board adopt the Proposed 10-Year Disbursement Plan totaling \$3,751,623,000, and related Lifetime Budget, which totals \$10,949,419,000; and

WHEREAS, on November 17, 2016, the Environmental Quality & Sewerage Services and the Water Quality & Water Services Committees, in a joint meeting, reviewed the budget proposals and discussed in detail the budget drivers, strategic budget decisions, budget assumptions, and customer and operational impacts; and both Committees recommended that the Board adopt the Proposed 10-Year Disbursement Plan totaling \$3,751,623,000, and related Lifetime Budget, which totals \$10,949,419,000.

NOW THEREFORE, BE IT RESOLVED THAT:

The Board hereby approves and adopts DC Water's Fiscal Year 2017 – 2026 Capital Improvement Program with the 10-Year Disbursement Plan totaling \$3,751,623,000 and related Lifetime Budget, which totals \$10,949,419,000 (Attachment A-1), and as further

detailed in the General Manager's Proposed Fiscal Year 2018 Budget, presented on November 3, 2016 and accompanying materials.

This resolution is effective immediately.

Secretary to the Board of Directors

10-Year Disbursement Plan & Lifetime Budget

Attachment A-1

\$ in thousands

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime Budget
NON PROCESS FACILITIES												
Facility Land Use	\$34,150	\$20,030	\$17,555	\$10,306	\$1,800	\$1,605	\$40	\$0	\$0	\$0	\$35,411	\$139,789
Subtotal	34,150	20,030	17,555	10,306	1,800	1,605	40	0	0	0	35,411	139,789
WASTEWATER TREATMENT												
Liquid Processing	16,152	24,883	52,941	43,931	24,215	34,226	39,622	49,838	45,391	45,980	377,100	1,275,084
Plantwide	11,313	14,562	17,562	32,116	22,815	26,977	29,470	18,351	22,831	13,761	207,758	477,349
Solids Processing	7,654	4,836	15,305	15,927	14,254	7,396	1,489	943	513	343	68,640	764,689
Enhanced Nitrogen Removal Facilities	88,670	54,141	5,533	4,010	983	7	1,300	916	11,101	22,446	189,107	1,034,493
Subtotal	123,789	98,423	91,341	95,985	62,266	68,605	71,882	70,049	79,836	82,530	644,784	3,551,615
COMBINED SEWER OVERFLOW												
DC Clean Rivers	171,300	116,713	115,974	148,210	175,492	115,822	95,920	73,621	63,527	145,743	1,222,310	2,764,014
Program Management	3,827	5,355	3,943	1,376	2,760	4,098	4,409	3,019	1,829	0	30,813	64,563
Combined Sewer	9,260	8,407	8,239	16,901	8,349	6,010	8,105	10,262	5,210	6,468	87,211	324,451
Subtotal	184,387	130,475	128,156	166,486	186,601	125,929	108,433	86,902	70,566	152,211	1,340,334	3,153,028
STORMWATER												
Local Drainage	172	8	76	353	69	642	272	864	1,055	222	3,733	15,736
On-Going	424	572	644	599	618	760	734	762	466	534	6,173	12,408
Pumping Facilities	368	1,743	2,068	72	1,136	4,155	20	0	0	308	9,089	25,000
DDOT	16	19	12	0	0	0	0	0	0	0	48	3,237
Research and Program Management	270	238	182	64	123	179	207	163	129	0	1,514	12,013
Trunk/Force Sewers	456	102	1,070	109	0	0	0	0	0	0	1,737	15,597
Subtotal	1,706	2,682	4,053	1,196	1,946	5,736	1,233	1,789	1,649	1,064	23,055	83,991
SANITARY SEWER												
Collection Sewers	4,890	2,249	2,057	8,042	7,304	11,799	6,962	6,531	22,763	32,239	104,837	332,601
On-Going	11,838	11,645	10,896	9,630	10,411	10,204	10,704	11,107	11,455	6,210	104,100	194,633
Pumping Facilities	2,806	290	1,793	2,389	1,588	140	209	0	0	0	9,214	36,759
Program Management	8,755	11,917	9,184	4,738	4,902	6,915	7,227	6,640	5,228	1,810	67,316	135,791
Interceptor/Trunk Force Sewers	10,013	13,194	29,068	32,942	30,499	30,419	29,346	28,956	13,307	10,304	238,049	748,806
Subtotal	38,302	39,294	52,999	57,741	54,704	59,479	54,447	53,235	52,753	50,563	311,512	1,448,589
WATER												
Distribution Systems	30,148	28,847	40,047	32,416	28,660	36,427	44,699	52,312	58,953	59,424	411,933	1,116,878
Lead Program	1,050	720	1,345	1,820	2,063	2,321	2,537	2,536	2,964	1,112	18,468	208,940
On-Going	10,643	6,886	7,521	6,944	7,235	7,275	7,366	7,735	8,007	9,336	78,948	147,604
Pumping Facilities	2,598	1,958	3,395	7,761	3,173	664	1,627	7,579	1,365	0	30,120	177,881
DDOT	830	516	188	0	0	0	0	0	0	0	3,534	33,933
Storage Facilities	7,728	8,072	6,612	4,361	1,382	1,685	5,188	9,395	2,354	0	46,779	106,364
Program Management	5,823	5,823	5,040	3,801	6,021	6,286	4,095	4,186	4,572	7,043	51,504	101,203
Subtotal	58,819	51,738	64,149	57,102	48,534	54,658	65,512	83,744	78,217	76,915	619,111	1,892,803
CAPITAL PROJECTS	441,153	342,642	358,253	388,816	355,952	371,603	301,546	295,719	283,021	303,288	3,446,297	10,269,817
CAPITAL EQUIPMENT	54,949	32,897	26,043	26,551	8,780	8,780	8,780	8,780	8,780	8,780	153,119	193,119
WASHINGTON AQUEDUCT	10,896	11,768	10,547	11,840	13,911	10,932	11,041	10,969	10,787	9,516	112,207	112,207
ADDITIONAL CAPITAL PROGRAMS	65,115	44,645	34,590	38,291	22,490	19,713	19,021	19,748	19,367	18,296	305,326	305,326
LABOR												
TOTAL CAPITAL BUDGETS	\$586,998	\$387,204	\$394,743	\$417,206	\$378,742	\$335,725	\$321,467	\$315,467	\$302,548	\$361,579	\$3,751,623	\$10,749,419

Presented and Adopted: December 1, 2016
Subject: Approval of Proposed Fiscal Year 2018 Operating Budget

#16-94
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, ("DC Water") at its meeting on December 1, 2016, upon consideration of a joint-use matter, decided by a vote of ___ () in favor and ___ () opposed, to take the following action with respect to the Fiscal Year 2018 Proposed Operating Budget.

WHEREAS, on November 3, 2016, the General Manager, Chief Operating Officer, Chief Engineer, and Chief Financial Officer, briefed the Board at the budget workshop on the Proposed FY 2018 Operating Budget that totaled \$561,947,000; and

WHEREAS, on November 15, 2016, the Finance and Budget and the DC Retail Water and Sewer Rates Committees, in a joint meeting, reviewed the budget proposals and discussed in detail the budget drivers, strategic budget decisions, budget assumptions, customer and operational impacts. The Finance and Budget Committee recommended that the Board adopt the Proposed FY 2018 Operating Budget that totals \$561,947,000.

NOW THEREFORE BE IT RESOLVED THAT:

The Board hereby approves and adopts DC Water's Proposed Fiscal Year 2018 Operating Budget totaling \$561,947,000 and as further detailed in the General Manager's Proposed Fiscal Year 2018 Operating Budget, presented on November 3, 2016 and accompanying materials.

This resolution is effective immediately.

Secretary to the Board of Directors

Presented and Adopted: December 1, 2016

**SUBJECT: Intent to Reimburse Capital Expenditures with Proceeds
of a Borrowing**

**#16-95
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 ("DC Water"), at the Board meeting held on December 1, 2016, upon consideration of a joint-use matter, decided by a vote of ___ () in favor and ___ () opposed, to take the following action.

WHEREAS, DC Water intends to acquire, construct and equip the items and projects set forth in Exhibit A hereto (collectively, the "Projects"); and

WHEREAS, plans for the Projects have advanced and DC Water expects to advance its own funds to pay expenditures related to the Projects ("Expenditures") prior to incurring indebtedness and to receive reimbursement for such Expenditures from proceeds of tax-exempt bonds or notes or taxable debt, or both.

NOW THEREFORE BE IT RESOLVED THAT:

1. DC Water utilizes the proceeds of tax-exempt bonds, taxable bonds or notes (the "Bonds") or other debt in an amount not currently expected to exceed \$323,000,000 to pay costs of the Projects. These costs include amounts heretofore unreimbursed pursuant to Resolution 15-105 of the Board adopted on December 3, 2015, plus amounts projected to be reimbursed during Fiscal Year 2017 – 2018.
2. DC Water intends to use the proceeds of the Bonds to reimburse itself for Expenditures with respect to the Projects made on or after the date that is 60 days prior to the date of this Resolution. DC Water reasonably expects on the date hereof that it will reimburse the Expenditures with the proceeds of the Bonds or other debt.
3. Each Expenditure was or will be, unless otherwise supported by the opinion of bond counsel, either (a) of a type properly chargeable to a capital account under general federal income tax principles (determined in each case as of the date of the Expenditure), (b) a cost of issuance with respect to the Bonds, (c) a nonrecurring item that is not customarily payable from current revenues, or (d) a grant to a party that is not related to or an agent of DC Water so long as such

grant does not impose any obligation or condition (directly or indirectly) to repay any amount to or for the benefit of DC Water.

4. DC Water makes a reimbursement allocation, which is a written allocation by DC Water that evidences DC Water's use of proceeds of the Bonds to reimburse an Expenditure, no later than 18 months after the later of the date on which the Expenditure is paid or the Project is placed in service or abandoned, but in no event more than three years after the date on which the Expenditure is paid. The DC Water recognizes that exceptions are available for certain "preliminary expenditures," costs of issuance, certain de minimis amounts, expenditures by "small issuers" and expenditures for any construction, the completion of which is expected to require at least five years.
5. The Board adopts this resolution confirming the "official intent" within the meaning of Treasury Regulations Section 1.150-2 promulgated under the Internal Revenue Code of 1986, as amended.

This resolution is effective immediately.

Secretary to the Board of Directors

EXHIBIT A — LIST OF PROJECTS

Blue Plains System
Non Process Facilities
Sanitary Sewer System
Combined Sewer System
DC Clean Rivers
Stormwater Sewer System
Water Pumping, Distribution and Storage
Metering and Capital Equipment
Washington Aqueduct

Presented and Adopted: December 1, 2016
SUBJECT: Approval to Extend Option Year Two of Contract No.
WAS-12-066-AA-RE, Polydyne, Inc.

#16-96
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 December 1, 2016 upon consideration of a joint use matter, decided by a vote of ___() in favor and ___() opposed to execute the extension of Option Year Two of Contract No. WAS-12-066-AA-RE, Polydyne, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute an extension to Option Year Two of Contract No. WAS-12-066-AA-RE, Polydyne, Inc. The purpose of this option is to continue the delivery of dry polymer to the District of Columbia Water and Sewer Authority. The extension amount is \$1,182,255.

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
Supply and Delivery of Pre-Dewatering Polymer
(Joint Use)**

Approval to extend option year two (2) of the contract and add funding in the amount of \$1,182,255.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Polydyne, Inc. One Chemical Plant Road Riceboro, GA 31323	SUBS: Hardy & Son Trucking LSBE	PARTICIPATION: 15%
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$1,803,739.00
Original Contract Dates:	01-01-2013 – 12-31-2013
No. of Option Years in Contract:	2
Option Year 1 Value:	\$1,420,000.00
Option Year 1 Dates:	01-01-2014 – 12-31-2014
Option Year 2 Value:	\$1,420,000.00
Option Year 2 Dates:	03-02-2015 – 03-01-2016
Prior Modifications Value:	\$1,400,000.00
Prior Modifications Dates:	01-01-2015 – 12-31-2016
Requested Modification Value:	\$1,182,255.00
Requested Modification Dates:	01-01-2017 – 09-30-2017

Purpose of the Contract:

The purpose of this contract is to deliver dry polymer to the District of Columbia Water and Sewer Authority. This product, Polydyne's polymer MA-039, is used to condition and prepare biosolids in the pre-dewatering step.

Reason For Change:

DC Water periodically works with polymer suppliers to ensure we continue to use the best products and correct dosing rates for our applications. Testing is performed several months before the expiration of polymer supply contracts, which in this case is 12-31-2016. Testing was originally planned for mid 2016, but was delayed due to scheduling conflicts. Laboratory-scale testing (jar tests) on three polymer candidates is now complete, and each performed well. Now, the results for this pre-dewatering polymer application must be confirmed in full-scale testing.

Full-scale testing is now scheduled for April, 2017. These tests involve connecting rented polymer dosing equipment rather than risk contaminating the installed assets. Once full-scale testing on the three polymer candidates is complete, the next steps include: reporting the test results; issue a solicitation for competitive price negotiations with suppliers of approved products; and award a new contract by September, 2017. Therefore, the requested extension end date of the current contract is 09-30-2017. The value of this modification was estimated by extrapolating the average approved funding for the current contract to the requested extension, and adding a 5% contingency in case plant throughput is greater than expected.

Spending Previous Year:

Cumulative Contract Value: 01-01-2013 – 12-31-2016: \$6,043,739.00
 Cumulative Contract Spending: 01-01-2013 – 10-31-2016: \$5,603,999.30

Contractor's Past Performance:

According to the COTR, Polydyne has performed acceptably with regard to product quality, timeliness of deliveries, conformance to site safety and operating procedures; submitting reports, and ease of doing business.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price Requirements Contract	Award Based On:	Lowest Responsive and Responsible Bidder
Commodity:	Goods and Services	Contract Number:	WAS-12-066-AA-RE
Contractor Market:	Open Market with Preference Points for LSBE and LBE Participation		

BUDGET INFORMATION

Funding:	Operating	Department:	Wastewater Treatment
Service Area:	Blue Plains	Department Head:	Sajit Kharkar

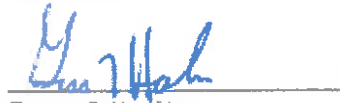
ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.67%	\$492,645.66
Washington Suburban Sanitary Commission	43.21%	\$510,852.39
Fairfax County	10.45%	\$123,545.65
Loudoun County	4.02%	\$47,526.65
Other (PI)	0.65%	\$7684.66
TOTAL ESTIMATED AMOUNT		100.00%
		\$1,182,255.00

 11/10/16
 Mark Kim Date
 Chief Financial Officer

 11/7/16
 Dan Bae Date
 Director of Procurement

 12/5/16
 Akhile Tesfaye Date
 Assistant General Manager
 Blue Plains

 11/21/2011
 George S. Hawkins Date
 General Manager

Presented and Adopted: December 1, 2016

SUBJECT: Approval to Execute Option Year One of Contract No. 15-PR-DWT-35, Polydyne, Inc.

**#16-97
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 December 1, 2016 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-DWT-35, Polydyne, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute option year one of Contract No. 15-PR-DWT-35, Polydyne, Inc. The purpose of the option is to continue the delivery of polymer to the District of Columbia Water and Sewer Authority. The option amount is \$1,860,603.

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
Supply and Delivery of Belt Press Polymers
(Joint Use)**

Approval to exercise option year one (1) in the amount of \$1,860,603.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Polydyne, Inc. One Chemical Plant Road Riceboro, GA 31323	SUBS: Hardy & Son Trucking LSBE	PARTICIPATION: 15%
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$1,575,000.00
Original Contract Dates:	10-01-2015 – 09-30-2016
No. of Option Years in Contract:	4
Prior Modifications Value:	\$422,752.00
Prior Modifications Dates:	01-08-2016 – 12-31-2016
Option Year 1 Value:	\$1,860,603.00
Option Year 1 Dates:	01-01-2017 – 12-31-2017

Purpose of the Contract:

The purpose of this contract is to deliver polymer to the District of Columbia Water and Sewer Authority. The belt press polymers under this contract, Polydyne's polymers C-3699 and C-6288, aid in increasing the solids content of biosolids.

Scope of Contract:

The belt press polymers under this contract help to increase the solids content of biosolids to about 32% from about 17% when exiting the pre-dewatering operation. The belt presses were commissioned in 2015, and the polymers used there were specified by the construction contractor and the belt press manufacturer.

Dewatering biosolids, aided by the polymers subject to this request, improves the quality of this important co-product. It also reduces its volume by removing water and concentrating the solids, and therefore also reduces the cost to transport biosolids to application sites. The amount of this request was calculated by applying the same annualized funding approved for the base year, and adding a 5% contingency in case plant throughput is greater than expected.

Spending Previous Year:

Cumulative Contract Value:	10-01-2015 – 12-31-2016: \$1,997,752.00
Cumulative Contract Spending:	10-01-2015 – 10-31-2016: \$1,974,136.00

Contractor's Past Performance:

According to the COTR, Polydyne has performed acceptably with regard to product quality, timeliness of deliveries, conformance to site safety and operating procedures; submitting reports, and ease of doing business.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price Requirements Contract	Award Based On:	Lowest Responsive and Responsible Bidder
Commodity:	Goods and Services	Contract Number:	15-PR-DWT-35
Contractor Market:	Open Market with Preference Points for LSBE and LBE Participation		

BUDGET INFORMATION

Funding:	Operating	Department:	Wastewater Treatment
Service Area:	Blue Plains	Department Head:	Salil Kharkar


ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.67%	\$775,313.27
Washington Suburban Sanitary Commission	43.21%	\$803,966.56
Fairfax County	10.45%	\$194,433.01
Loudoun County	4.02%	\$74,796.24
Other (PI)	0.65%	\$12,093.92
TOTAL ESTIMATED AMOUNT	100.00%	\$1,860,603.00

 11/10/16
 Mark Kim Date
 Chief Financial Officer

 11/7/16
 Dan Bae Date
 Director of Procurement

 11/4/16
 Akile Tesfaye Date
 Assistant General Manager
 Blue Plains

 11/21/2016
 George S. Hawkins Date
 General Manager

Presented and Adopted: December 1, 2016

SUBJECT: Approval to Execute Contract No. 16-PR-DMS-43, Electric Motor & Contracting (EMC)

**#16-98
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 December 1, 2016 upon consideration of a joint use matter, decided by a vote of __() in favor and __() opposed to execute Contract No. 16-PR-DMS-43, Electric Motor & Contracting (EMC).

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. 16-PR-DMS-43, Electric Motor & Contracting (EMC). The purpose of the contract is to provide inspection, repair, replacement, and upgrade services for various process assets (pumps, motors, blowers, valves, etc.) located at all DC Water facilities. The contract amount is \$2,150,000.

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
Repair and Rehabilitation of Various Process Assets
(Joint Use)**

Approval to execute a contract for the Repair and Rehabilitation of Various Process Assets with a base year value of \$2,150,000.00

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Electric Motor & Contracting (EMC) 3703 Cook Blvd Chesapeake, VA 23323	SUBS: M & M Electric Motor Repair, Inc. LSBE	PARTICIPATION: 29%
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DESCRIPTION AND PURPOSE

Base Year Contract Value	\$2,150,000.00
Contract Time:	Base year with 2 Option Years
Anticipated Contract Start Date:	01-01-2017
Anticipated Contract Completion Date:	12-31-2017
Bid Opening Date:	09-06-2016
Bids Received:	4
Preference Points Awarded:	2.89

Purpose and Scope of the Contract:

The Department of Maintenance Service (DMS) and Department of Distribution & Conveyance Systems (DDCS) require the services of a qualified contractor to provide inspection, repair, replacement, and upgrade services for various process assets (pumps, motors, blowers, valves, etc.) located at all DC Water facilities.

The amount of this request is the average DMS and DDCS spend for the past 6 years under the similar, but expiring contracts. Added to that average is the cost to refurbish four DDCS pumps, which are planned for 2017. The contractor is engaged and paid on a work order-by-work order basis as required by DC Water.

The contractor will furnish all labor, management, supervision, tools, materials, test equipment, repair and rebuild services, onsite technical assistance, as well as incur all transportation costs associated with shipping the repaired/refurbished component to and from the repair facility.

Supplier Evaluation:

It is impossible to predict which assets will need repair, so suppliers' proposals described how they would address, with pricing, repair scenarios that are representative of DC Water's requirements. There were eight scenarios in the solicitation, such as repairing a vertical pump and a grit pump, and refurbishing a butterfly valve. Based on the below evaluation criteria, EMC is recommended for this contract award.

<u>Evaluation Factors</u>	<u>Weight</u>
Technical Capabilities	44%
Qualifications of the Firm	31%
Price	25%
TOTAL	100%
Preference Points for LBE/LSBE	10%

EMC and subcontractor M&M are the current contractors for the expiring contracts that this award will replace. They have successfully completed hundreds of projects for DC Water. According to the COTR, EMC and M&M have performed very well with regard to quality of services, timeliness of deliverables; and conformance to DC Water's policies, procedures and contract terms.

The EMC facility in Chesapeake, VA, it is in excellent condition and ISO certified.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price Requirement Contract	Award Based On:	Best Proposal and Responsible Bidder
Commodity:	Goods and Services	Contract Number:	16-PR-DMS-43
Contractor Market:	Invitation with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Capital Equipment	Department:	DMS
Service Area:	Blue Plains AWTP	Department Head:	Anthony Mack

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.54%	\$394,630.00
Washington Suburban Sanitary Commission	45.26%	\$429,970.00
Fairfax County	8.64%	\$82,080.00
Loudoun Water	3.75%	\$35,625.00
Other (PI)	0.81%	\$7,695.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$950,000.00

BUDGET INFORMATION

Funding:	HA-CAPM	Department:	DDCS
Service Area:	Other	Department Head:	Charles Sweeney

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100%	\$500,000.00
Washington Suburban Sanitary Commission	0%	\$0.00
Fairfax County	0%	\$0.00
Loudoun Water	0%	\$0.00
Other (PI)	0%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$500,000.00

BUDGET INFORMATION


Funding:	HB-CAPM	Department:	DDCS
Service Area:	Other	Department Head:	Charles Sweeney

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100%	\$700,000.00
Washington Suburban Sanitary Commission	0%	\$0.00
Fairfax County	0%	\$0.00
Loudoun Water	0%	\$0.00
Other (PI)	0%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$700,000.00

Mark Kim
 Mark Kim
 Chief Financial Officer

11/20/16
 Date

 11/9/16
Date
Dan Bae
Director of Procurement

 11/9/16
Date
Akhie Tesfaye
Assistant General Manager,
Blue-Plains

(For)  11-9-2016
Date
Charles Kiely
Assistant General Manager,
Customer Care & Operations

 11/21/2016
Date
George S. Hawkins
General Manager

Presented and Adopted: December 1, 2016

**SUBJECT: Approval to Execute Supplemental Agreement No. 1,
Contract No. DCFA #428-WSA, AECOM**

**#16-99
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 December 1, 2016 upon consideration of a joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Supplemental Agreement No. 1, Contract No. DCFA #428-WSA, AECOM.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Supplemental Agreement No. 1, Contract No. DCFA #428-WSA, AECOM. The purpose of the supplemental agreement is to continue providing construction management and related engineering services for the management of multiple major construction contracts at the Blue Plains Wastewater Treatment Plant. The supplemental agreement amount is \$5,664,044.

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 – Enhanced Nitrogen Removal
(Joint Use)**

Approval to execute Supplemental Agreement No. 01 for \$5,664,044. The modification exceeds the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
AECOM 2020 K Street, NW Suite 300 Washington, D.C. 20032 20006	The Temple Group, Inc Washington, D.C. MBE	15.0%
	Jackson & Tull, Chartered Engineers Washington, D.C. MBE	7.0%
	Allied Companies, LLC Washington, D.C. MBE	6.0%
	The Robert B. Balter Company Owing Mills, MD WBE	5.0%

DESCRIPTION AND PURPOSE

Original Contract Value:	\$40,197,144.00
Value of this Supplemental Agreement:	\$ 5,664,044.00
Cumulative SA Value, including this SA:	\$ 5,664,044.00
Current Contract Value, including this SA:	\$45,861,188.00
Original Contract Time	1825 Days (5 Years, 0 Months)
Time extension, this SA:	1336 Days
Total SA contract time extension	1336 Days (3 Years, 8 Month)
Contract Start Date	12-20-2010
Contract Completion Date	08-16-2019

Purpose of the Contract:

To provide construction management and related engineering services for the management of multiple major construction contracts at the Blue Plains Wastewater Treatment Plant

Original Contract Scope:

- Provide construction management and related services including review services during the design phase such as constructability, cost estimates, schedules and assistance during the bidding phase
- Services will be provided for the following projects:
 - E9 Nitrogen Removal Facilities
 - EE Filtrate Treatment Facilities
 - B1 Enhanced Nitrogen Removal (ENR North)
 - BG Dual Purpose Rehabilitation
 - TZ Electrical Power System Switch Gear
 - BR Nitrification/Denitrification Facilities
 - BT Filtration/Disinfection Facilities – Phase II

Current Supplemental Agreement Scope:

- Continuation of construction management services for the following projects with schedule extensions
 - TZ Electrical Power System Switch Gear
 - BI Enhanced Nitrogen Removal (ENR North)
 - BG Dual Purpose Rehabilitation
 - EE Filtrate Treatment Facilities
 - E9 Nitrogen removal Facilities
 - BR Nitrification/Denitrification Facilities
 - BT Filtration/Disinfection Facilities – Phase II
- Construction management services will be provided for the following projects:
 - BV Raw Wastewater Pump Station 2 Upgrades
 - OE Plantwide Storm Drainage Improvements

PROCUREMENT INFORMATION

Contract Type:	Cost Plus-Fixed Fee	Award Based On:	Highest Ranking Score
Commodity:	Engineering Services	Contract Number:	DCFA #428 - WSA
Contractor Market:	Open Market		

BUDGET INFORMATION


Funding:	Capital	Department:	Wastewater Engineering
Service Area:	Wastewater	Department Head:	Diala Dandach
Project:	BR, BT, E9, EE, BI, BG, TZ, BV, OE		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.22%	\$ 2,334,718.94
Federal Funds	0.00%	\$ 0.00
Washington Suburban Sanitary Commission	45.84%	\$ 2,596,397.77
Fairfax County	8.38%	\$ 474,646.89
Loudoun County & Potomac Interceptor	4.56%	\$ 258,280.40
Total Estimated Dollar Amount	100.00%	\$ 5,664,044.00


 _____, 11/9/16
 Mark Kim Date
 Chief Financial Officer


 _____, 11/9/16
 Leonard R. Benson Date
 Chief Engineer


 _____, 11/9/16
 Dan Bae Date
 Director of Procurement


 _____, 11/24/2016
 George S. Hawkins Date
 General Manager

Presented and Adopted: December 1, 2016

SUBJECT: Approval to Execute Contract No. DCFA #473-WSA, Hazen and Sawyer

**#16-100
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 December 1, 2016 upon consideration of a joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Contract No. DCFA #473-WSA. Hazen and Sawyer.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. DCFA #473-WSA, Hazen and Sawyer. The purpose of the contract is to provide professional architectural/engineering and related services for the DC Water Blue Plains Advanced Wastewater Treatment Plant on an as-needed basis through individually negotiated task orders. The contract amount is \$6,000,000.

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

ENGINEERING SERVICES:

**Water, Sewer & Wastewater Treatment Facilities - Basic Ordering Agreement 5
(Joint Use)**

Approval to execute an architectural and engineering services contract for \$6,000,000

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Hazen and Sawyer 4035 Ridge Top Road. Suite 400 Fairfax, VA 22030	C C. Johnson and Malhotra, P.C. Washington, DC	MBE 12.0%
	DMY Engineering Sterling, VA	MBE 2.0%
	HB Permit Service, Inc Fort Washington, MD	MBE 1.0%
	Ratchet Designs, LLC Midlothian, VA	MBE 1.0%
	Savin Engineers, PC Pleasantville, NY	MBE 12.0%
	SherAI Consulting Services, LLC Washington, DC	WBE 1.0%
	Sigma Associates, Inc. Detroit, MI	WBE 2.0%
	Brickwall Fairfax, VA	WBE 1.0%
	PDH Associates Potomac, MD	WBE 4.0%
	Precision Measurements, Inc. Virginia Beach, VA	WBE 1.0%
	Baker-Wohl Boston, MA	1.0%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed.	\$6,000,000
Contract Time	1826 Days (5 Years)
Anticipated Contract Start Date (NTP).	12-30-2016
Anticipated Contract Completion Date.	12-30-2021

Other firms submitting proposals/ qualification statements:

- ARCADIS*
- GHD *
- Hazen and Sawyer, PC *
- Whitman, Requardt & Associates, LLP *
- Belstar, Inc
- Gannett Fleming Engineers & Architects, PC
- O'Brien & Gere Engineers, PC
- RK&K, Inc

* Asterisk indicates short listed firms

Purpose of the Contract:

To provide professional architectural/engineering and related services for the DC Water Blue Plains Advanced Wastewater Treatment Plant on an as-needed basis through individually negotiated task orders

Contract Scope:

- The task orders will provide engineering and technical studies, concept designs, final designs, and services during bid and construction phases as needed
- Professional services are anticipated in the following disciplines and support services: civil, structural, architectural, mechanical process, HVAC, instrumentation and control, electrical and support activities such as value engineering studies, preparation of standard specifications, surveys, and subsurface investigations.
- Projects will include upgrades and additions to various facilities and structures at the Blue Plains Advanced Wastewater Treatment Plant
- Work will be accomplished under a series of definitive Task Orders. Each Task Order will identify the scope of work, deliverables, compensation, and schedule for performing the task.

PROCUREMENT INFORMATION

Contract Type:	Cost plus fixed fee/ Lump Sum	Award Based On:	Highest Ranking Score
Commodity:	Engineering Design Services	Contract Number:	DCFA #473-WSA
Contractor Market:	Open Market		

BUDGET INFORMATION

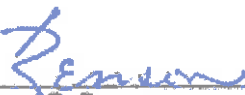
Funding:	Capital	Department:	Wastewater Engineering
Service Area:	Wastewater	Department Head:	Diala Dandach
Project:	BQ. IY, J2, OF		

USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.22%	\$ 2,473,200.00
Washington Suburban Sanitary Commission	45.84%	\$ 2,750,400.00
Fairfax County	8.38%	\$ 502,800.00
Loudoun County & Potomac Interceptor	4.56%	\$ 273,600.00
Total Estimated Dollar Amount	100.00%	\$ 6,000,000.00

 11/4/16
 Mark Kim Date
 Chief Financial Officer

 11/9/16
 Dan Bae Date
 Director of Procurement

 11-8-16
 Leonard R. Benson Date
 Chief Engineer

 11/21/2016
 George S. Hawkins Date
 General Manager

Presented and Adopted: December 1, 2016

SUBJECT: Approval to Execute Option Year One of Contract No. 15-PR-CCO-50, Fasteners Rx, Inc.

**#16-101
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 December 1, 2016 upon consideration of a non-joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Option Year One of Contract No. 15-PR-CCO-50, Fasteners Rx, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Option Year One of Contract No. 15-PR-CCO-50, Fasteners Rx, Inc. The purpose of the option is to continue purchasing new meters to replace existing meters that are at the end of their useful life. The option amount is \$980,000.

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

**Compound Water Meters
(Non-Joint Use)**

Approval to add funding to Option Year 1 in the amount of \$980,000.00, and to modify the contract to enable DC Water to exercise an Option Year Two (2) if so desired.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Fasteners Rx, Inc 9203 Black Dog Alley, Easton, MD 21601	SUBS: N/A	PARTICIPATION: N/A
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$559,956.75
Base year Additional Funding	\$440,000.00
Original Contract Dates:	11-19-2015 to 11-18-2016
Option Year 1 Value:	\$0.00
Option Year 1 Dates:	11-19-2016 to 11-18-2017
No. of Option Years in Contract:	1
This Modification Value:	\$980,000.00
This Modification Dates:	11-19-2016 - 11-18-2017

Purpose of the Contract:

This contract provides for Compound Water Meters of various sizes to the Department of Customer Care and Operations (CCO). New meters are purchased to replace existing meters that are at the end of their useful life.

Reason for the Change:

Option Year 1 was recently exercised at \$0 to prevent contract expiration. This modification is to fund Option Year 1. The requested funding of \$980,000.00 is sufficient to purchase forecasted meter demand during the option year and is consistent with base year spending. This request is also to modify the contract terms to enable DC Water, if it so desires, to exercise an Option Year 2. The current terms allow for only a single Option Year.

Spending Previous Year:

Cumulative Contract Value:	11-19-2015 to 11-18-2016: \$999,956.75
Cumulative Contract Spending:	11-19-2015 to 11-02-2016: \$966,590.25

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.

No LBE/LSBE participation

PROCUREMENT INFORMATION

Contract Type:	Firm Fixed	Award Based On:	Single Proposer
Commodity:	Goods and Services	Contract Number:	15-PR-CCO-50
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION


Funding:	Capital	Department:	Customer Services
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%	\$980,000.00
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%	\$980,000.00

 , 11/9/16
 Mark Kim Date
 Chief Financial Officer

 , 11/9/16
 Dan Bae Date
 Director of Procurement

(For)  , 11-8-2016
 Charles Kiely Date
 Assistant General Manager,
 Customer Care and Operations

 , 11/21/2016
 George S. Hawkins Date
 General Manager

Presented and Adopted: December 1, 2016

SUBJECT: Approval to Execute Contract No. 15-PR-CCO-59, Vertex

**#16-102
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 December 1, 2016 upon consideration of a non-joint use matter, decided by a vote of ___() in favor and ___() opposed to execute Contract No. 15-PR-CCO-59, Vertex.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. 15-PR-CCO-59, Vertex. The purpose of the contract is to provide for the purchase and implementation of a customer information system. The contract amount is \$19,338,768.

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
Customer Information System and Implementation
(Non-Joint Use)**

Approval to execute a new contract award for new the customer information system and implementation in the amount of \$19,338,768.00 for the Base Period.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Vertex 250 East Arapaho Road, Suite 100 P.O. Box 852752 Richardson, Texas		

DESCRIPTION AND PURPOSE

Base Period Contract Value:	\$19,338,768.00
Base Contract Period:	12-01-2016—11-30-2023 (7 years)
No. of Option Years:	2 (3-year option period)
Anticipated Contract Start Date:	12-01-2016
Anticipated Base Period Completion Date:	11-30-2023
Proposal Closing Date:	01-22-2016
Proposals Received:	13
Proposal Price Range:	\$12,700,000.00 — \$23,200,000.00
Preference Points Received:	0

Purpose of the Contract:

This contract is to provide for the purchase and implementation of a customer information system.

Contract Scope:

District of Columbia Water and Sewer Authority (DC Water) has a continuing need for a comprehensive new software solution to replace current legacy eCIS application that is 20+ years old and is being discontinued by the current provider. The new eCIS solution with its customer self-care and mobile work management functionality will replace this legacy solution and fully automate multiple activities that are currently handled manually. It meets multiple business needs, multiple departmental requirements, and a wide array of customer-facing opportunities and provide DC Water, and its customers, greatly enhanced capabilities and functionality through a state of the art Tier 1 hosted and fully integrated suite. In addition, DC Water will evaluate optional applications to support Business Intelligence including tools to help evaluate rate design modeling where available.

Supplier Selection:

Procurement issued the Request for Proposal #15-PR-CCO-59 on November 3, 2015 with a closing date of January 22, 2016 at 4:00 pm. The solicitation was issued with the opportunity for firms to respond to hosted and on-premise solution. The evaluation factors consisted of vendor viability, functional and technical capability, implementation methodology, technical topology and adoption against known standards, price, demonstrations, references and local small business participation.

The DC Water project team consisted of the Director of Customer Service, Director of IT Infrastructure, Director of Procurement, Billing Manager, Financial Systems & Controls Manager, CIS Administrator, Sr. Sourcing Specialist and other IT support. The evaluation panel that read and scored the proposals consisted of the Director of Customer Service, Director of IT Infrastructure, Billing Manager, Manager of Financial Systems & Controls and the CIS Administrator.

The firms that responded were:

- | | |
|--------------------------|-----------------------|
| Systems & Software | Tech Mahindra |
| Advanced Utility Systems | Blue Heron Consulting |
| Cayenta | Origin |
| Itineris | Vertex |
| Cogsdale | Hewlett Packard |
| Hansen Technologies | Oracle Services. |
| Wipro | |

The evaluation panel read and scored the 15 responses from the 13 firms where some firms proposed both the hosted and on-premise solutions. After a thorough review, DC Water decided on a hosted solution for the following benefits:

- Reduced risk and increase overall system reliability at a lower total cost of ownership
- No need for a large capital investments in equipment
- Avoid the risk of hardware/software obsolescence
- Reduce on-going operating risks, back-up and disaster recovery risks, security requirements
- Reduce skills obsolescence
- Software is maintained by the hosting system integrator
- Access is available anywhere/anytime
- Allows internal staff to focus on valued added services such as business analysis, decision support and analytics
- Achieve process improvements and faster adoption of future "Best Practices."

The evaluation team held multi-day scripted demonstrations with 5 firms who proposed hosted solutions and selected two firms (Oracle Services and Vertex) as the finalists. Procurement conducted the Best and Final Offers (BAFO) with these two finalists and Vertex is selected based on the highest rating and the lowest total cost of ownership

This contract award to Vertex has several components:

COMPONENTS	DESCRIPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7
VERTEX ONE (ECIS)	Implementation	\$3,154,557	N/A	N/A	N/A	N/A	N/A	N/A
KONA MOBILE WORKFORCE	Implementation	\$1,003,499	N/A	N/A	N/A	N/A	N/A	N/A
CUSTOMER SELF SERVICE PORTAL	Implementation	\$197,978	N/A	N/A	N/A	N/A	N/A	N/A
VERTIXONI	Annual Subscription fee		\$1,616,457	\$1,616,457	\$1,616,457	\$1,616,457	\$1,616,457	\$1,616,457
MOBILE WORKFORCE	Annual Maintenance Fee		\$164,834	\$164,834	\$164,834	\$164,834	\$164,834	\$164,834
KUBRA BILL PRINTING & SOFTWARE	Bill Printing Service	Fee Waived	\$486,003	\$486,003	\$486,003	\$486,003	\$486,003	\$486,003
TRAINING	Training	\$300,000						
TRAVEL & EXPENSES	Fixed Fee	\$1,079,000						
SUB TOTAL		\$5,735,034	\$2,267,289	\$2,267,289	\$2,267,289	\$2,267,289	\$2,267,289	\$2,267,289
GRAND TOTAL					\$19,338,768			
OPERATING		\$300,000	\$2,142,289	\$2,142,289	\$2,142,289	\$2,142,289	\$2,142,289	\$2,142,289
CAPITAL EQUIPMENT		\$5,435,034	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000

No (BFB/LBFE participation)

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	Award Based On:	Highest Rated Offeror
Commodity:	Goods and Services	Contract Number:	15-PR-CCO-59
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Capital - EQP23600215	Department:	Customer Care Operations
Service Area:	Capital Equipment	Department Head:	Charles Kiely

ESTIMATED USER SHARE INFORMATION

User - Capital	Share %	Dollar Amount
District of Columbia	100%	\$6,185,034.00
Washington Suburban Sanitary Commission	0%	\$0.00
Fairfax County	0%	\$0.00
Loudoun Water	0%	\$0.00
Other (Potomac Interceptor)	0%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$6,185,034.00

BUDGET INFORMATION


Funding:	Operating	Department:	Customer Care Operations
Service Area:	DC Water Wide	Department Head:	Charles Kiely

ESTIMATED USER SHARE INFORMATION

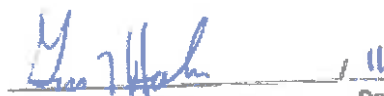
User - Operating	Share %	Dollar Amount
District of Columbia	100%	\$13,153,734.00
Washington Suburban Sanitary Commission	0%	\$0.00
Fairfax County	0%	\$0.00
Loudoun Water	0%	\$0.00
Other (Potomac Interceptor)	0%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$13,153,734.00


_____, 11/18/16
Date
Mark Kim
Chief Financial Officer


_____, 11/18/16
Date
Dan Bee
Director of Procurement


_____, 10/18/16
Date
Charles Kiehl
Assistant General Manager,
Customer Care Operations


_____, 10/18/16
Date
Thomas Kuczynski
Chief Information Officer


_____, 11/21/2011
Date
George S. Hawkins
General Manager

Presented and Adopted: December 1, 2016
SUBJECT: Customer Assistance Program (CAP) Expansion to
Provide a 50 Percent Credit of the Monthly Clean Rivers IAC (CRIAC)
Billed to Eligible Households and Tenants

#16-103
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The District members of the Board of Directors (“Board”) of the District of Columbia Water and Sewer Authority (“the Authority”) at the Board meeting held on December 1, 2016, upon consideration of a non-joint use matter, decided by a vote of ____() in favor and ____() opposed, to approve the following action to expand the Customer Assistance Program (CAP) to provide a 50 percent credit of the monthly Clean Rivers Impervious Surface Area Charge (CRIAC) billed to eligible households and tenants.

WHEREAS, pursuant to D.C. Official Code §§ 34-2202.03(3) and (11) and § 34-2202.16, the Board is authorized to adopt rules and regulations to establish, adjust, levy, collect and abate charges for services DC Water supplies; and

WHEREAS, the Board authorized the General Manager to implement a Customer Assistance Program (CAP) to assist eligible low income single-family owner-occupied primary residential customers (homeowners) by exempting the first four Hundred Cubic Feet (4 Ccf) per month of water used to their water service charges (Resolution #00-38); to expand the CAP program to include eligible tenants (Resolution #04-10); to increase CAP benefits to exempt the first 4 Ccf per month of water used to their retail sewer service charges (Resolution #08-65); and to increase CAP benefits to apply to Payment-in-Lieu of Taxes (PILOT) and Right of Way (ROW) fees for the first 4 Ccf per month of water used (Resolution #10-86); and

WHEREAS, on July 7, 2016, the Board, through Resolution #16-61, approved an increase for the Clean Rivers Impervious Surface Area Charge (CRIAC) of 9.6% for FY 2017 and 13.2 % for FY 2018 to pay for the Clean Rivers Project; and

WHEREAS, on July 7, 2016, the Board, in Resolution #16-60, expressed its concern about the rate of growth in CRIAC on low-income customers, and directed the General Manager to evaluate the CAP and make a recommendation to the Retail Rates Committee regarding the expansion of the CAP benefits to include CRIAC fees, as soon as practicable; and

WHEREAS, on September 27, 2016, the DC Retail Water and Sewer Rates and Finance and Budget Committees met to review and consider proposals for the expansion of the CAP to include CRIAC fees and customer impacts; and

WHEREAS, the Committees requested the General Manager to provide additional analysis on the impact of implementing an expansion of the CAP and alternative CRIAC abatement proposals and review the CAP enrollment history; and

WHEREAS, on November 15, 2016, the DC Retail Water and Sewer Rates and Finance and Budget Committees met to review the additional analysis on implementing an expansion of the CAP to include a CRIAC credit by providing a fixed ERU credit, fixed dollar credit or percent of CRIAC credit (25%, 50% or 75%) and CAP enrollment history; and

WHEREAS, on November 15, 2016, the Committees recommended to the Board to expand the CAP to abate 50% for the monthly CRIAC billed to eligible households and tenants effective as soon as practicable.

NOW THEREFORE BE IT RESOLVED THAT:

1. The General Manager is authorized to amend the CAP regulations to expand the benefits to eligible low-income single family residential customers and tenants to receive a 50% credit on their billed CRIAC fee as set forth below:

4102 CUSTOMER ASSISTANCE PROGRAMS

4102.1 CUSTOMER ASSISTANCE PROGRAM FOR HOUSEHOLDS AND TENANTS

- (a) Participation in the Customer Assistance Program (CAP) shall be limited to single-family residential accounts and individually metered tenant accounts when the eligible applicant is responsible for paying for water and sewer services and/or the Clean Rivers Impervious Surface Area Charge (CRIAC).
- (b) Eligibility shall be determined by the District of Columbia Department of Energy and Environment and as provided in section 4102.1(a).
- (c) Eligible households and tenants shall receive an exemption from water service charges, sewer service charges, Payment-in-Lieu of Taxes (PILOT) and Right-of-Way (ROW) fees for the first Four Hundred Cubic Feet (4 Ccf) per month of water used. If the customer uses less than Four Hundred Cubic Feet (4 Ccf) of water in any month, the exemption will apply based on the amount of that month's actual water usage.

- (b) Eligible households and tenants shall receive a credit of one hundred percent (100%) off of the monthly billed Water System Replacement Fee.
 - (c) Eligible households and tenants shall receive a credit of fifty percent (50%) of the monthly billed CRIAC.
- 2. The General Manager is authorized to take all steps necessary in his judgment and as otherwise required, to publish a Notice of Proposed Rulemaking in the District of Columbia Register for the amendments to the Customer Assistance Program regulations and receive public comments in the manner provided by District of Columbia Administrative Procedure Act.
- 3. This resolution is effective immediately.

Secretary to the Board of Directors