



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY  
223<sup>rd</sup> MEETING OF THE BOARD OF DIRECTORS  
Thursday, September 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 July 7, 2016 Minutes**
- IV. Chairman's Overview**
- V. Committee Reports**
  - 1. Governance Committee (Chairman Matthew Brown)
  - 2. Human Resources and Labor Relations Committee (Bradley Frome)
  - 3. Environmental Quality and Sewerage Services Committee (Bo Menkiti)
  - 4. Water Quality and Water Services Committee (Rachna Butani)
  - 5. Audit Committee (Nicholas Majett)
  - 6. Finance and Budget Committee (Timothy Firestine)
- VI. CEO/General Manager's Report (CEO/General Manager George Hawkins)**
- VII. Summary of Contracts (FYI)**
- VIII. Consent Items (Joint Use)**
  - 1. Approval to Execute Option Year Two of Contract No 14-PR-DFS-08, M&N Contractors, LLC – Resolution No. 16-62 (Recommended by Environmental Quality and Sewerage Services Committee 07/21/16)
  - 2. Approval to Execute Supplemental Agreement No. 06 of Contract No. DCFA 423, Black & Veatch Corporation. - Resolution No. 16-63 (Recommended by Environmental Quality and Sewerage Services Committee 07/21/16)
  - 3. Approval to Execute Contract No. DCFA 474, CDM Smith Inc. – Resolution No. 16-64 (Recommended by Environmental Quality and Sewerage Services Committee/Water Quality and Water Services Committee 07/21/16)
  - 4. Approval of FY 2016 Projected Net Cash Surplus – Resolution No. 16-65 (Recommended by Finance and Budget Committee 07/28/16)

5. [Approving the Substantially Final Form of Certain Documents, Authorizing the Sale and Setting Terms and Details of the Series 2016 Environmental Impact Bonds – Resolution No. 16-66](#) (Recommended by Finance and Budget Committee 07/28/16)
6. [Approval to Execute Contract No. 16-PR-HCM-26, Connecticut General Life Insurance, Inc. – Resolution No. 16-67](#) (Recommended by Environmental Quality and Sewerage Services Committee 07/28/16)
7. [Approval to Execute Contract No. 16-PR-ACM-28, Delta Dental of the District of Columbia - Resolution No. 16-68](#) (Recommended by Human Resources and Labor Relations Committee 07/13/16)

**IX. Consent Items (Non-Joint Use)**

1. [Approval to Execute Contract No. 150130, Bradshaw Construction Corp. – Resolution No. 16-69](#) (Recommended by Environmental Quality and Sewerage Services Committee 07/21/16)

**X. Executive Session** – To discuss legal, confidential and privileged matters pursuant to Section 2-575(b) of the D.C. Official Code<sup>1</sup>

**XI. Adjournment**

<sup>1</sup> 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 – 4<sup>th</sup> Floor)**

- Governance Committee – Wednesday, September 14<sup>th</sup> @ 9:00 a.m.
- Human Resource and Labor Relations Committee – Wednesday, September 14<sup>th</sup> @ 11:00 a.m.
- Environmental Quality and Sewerage Services Committee – Thursday, September 15<sup>th</sup> @ 9:30 a.m.
- Water Quality and Water Services Committee – Thursday, September 15<sup>th</sup> @ 11:00 a.m.
- D.C. Retail Water and Sewer Rates Committee – Tuesday, September 27<sup>th</sup> @ 9:00 a.m.
- Joint Meeting of D.C. Retail Water and Sewer Rates Committee and Finance and Budget Committees – Tuesday, September 27<sup>th</sup> @ 10:00 a.m.
- Finance and Budget Committee – Tuesday, September 27<sup>th</sup> @ 11:00 a.m.



**DISTRICT OF COLUMBIA  
WATER AND SEWER AUTHORITY**

**BOARD OF DIRECTORS**

**GOVERNANCE COMMITTEE**

**MEETING MINUTES**

**July 13, 2016**

**Committee Members**

Ellen O. Boardman, Chairperson  
Matthew Brown, Board Chairman  
Rachna Butani  
David W. Lake  
Shirley Branch

**D.C. Water Staff**

George S. Hawkins, General Manager  
Henderson J. Brown, General Counsel  
Linda Manley, Board Secretary

Chairperson Boardman convened the meeting at 9:05 a.m. Prior to the scheduled presentations, General Manager Hawkins updated the Committee on efforts undertaken by DC Water to ensure safe and adequate lighting at its construction sites. Mr. Hawkins noted there were reports of robberies and a murder in the Bloomingdale neighborhood over the weekend. Mr. Hawkins stated that he has been in contact with Councilmember Kenyan McDuffie's office (Ward 5), the metropolitan police department, and DC Water's Board Chair to make sure DC Water is doing everything it can to support safety in the neighborhood.

Among other things, DC Water conducted a full photographic assessment of all of the lighting at its construction sites in this area in collaboration with the District of Columbia metropolitan police department. Light bulbs also were checked to ensure the existing lighting is operating properly. Finally, DC Water will be installing additional lighting in some areas of its construction sites today (July 13, 2016).

**Agenda Item # 1 - DC Water Works! Permanent Jobs Program**

Korey Gray, DC Water's Compliance Officer, presented on Agenda Item # 1 – DC Water Works! permanent jobs program.

Mr. Gray reported that in support of the Board of Director's Strategic Initiative #2, the DC Water Works! program is designed to encourage development and employment of local residents as employees on DC Water construction and service projects.

Before describing the elements of the proposed program, Mr. Gray discussed the outreach and stakeholder engagement efforts DC Water undertook to build support for the program. In all, DC Water held more than 25 stakeholder meetings. Multiple statements of support were provided by various government agencies, businesses, and community organizations.

Next, Mr. Gray discussed the elements of the program. Complete details regarding the program were provided in materials submitted to the Committee members, including program goals, requirements and provisions, letters of support for the program, and other supporting documents.

### **Program Goals**

Through DC Water Works! Permanent jobs program, DC Water proposes a mission goal where 51% of a contractor's workforce assigned to a DC Water project will be residents of the DC Water User Jurisdiction, and ultimately 60% of new jobs created as a result of the DC Water contract will be filled by residents of the DC Water User Jurisdiction.

The program will cover contracts with DC Water for goods valued at \$300,000 or greater and contracts for services valued at \$100,000 or greater. There would be several exemptions to the program, including but not limited to:

- Financial Service, Legal Service, Goods-Only, and Emergency purchases.
- Contractors operating under the DC Water Green Infrastructure Memorandum of Agreement
- First source requirements for contractors with collective bargaining agreements or project labor agreements.

### **Job Referral Process**

Mr. Gray explained that

DC Water Works! will be the "first source" for referral of candidates for all new jobs covered under this program. DC Water's efforts will prioritize identifying District of Columbia residents who may be qualified for the job referral process. The expectation under this process is to identify "ready to employ" individuals to meet the immediate hiring needs of DC Water's contractors.

The reason for the focus on District of Columbia residents was due in part to the relatively high level of unemployment in the District (6.1%) as compared to the other DC Water User Jurisdiction counties. According to the May 2016 employment statistics from the US Bureau of Labor Statistics ("BLS"), the unemployment rate for Fairfax and Loudoun Counties is 2.9%. The rate for Montgomery County is 3.3% and 4.3% in Prince George's County.

Under the DC Water Works! program, covered contractors will give DC Water three (3) business days (Monday - Friday) from the date the job was submitted to DC Water to identify qualified candidates for available job positions. In the event that DC Water is unable to refer qualified candidates, contractors may fill available positions through other means, while still working to achieve the 60% new hire goal for local residents.

Mr. Gray explained that DC Water will team with other stakeholders such as government agencies, community organizations, and the business community to help identify potential candidates for referral process (Strategic Partners). DC Water will ensure that Strategic Partners

are aware of contractor employment opportunities in order to allow the partners to forward candidates to DC Water Works! so that DC Water can make referrals within the three (3) business day period.

### **Skills Training and Placement**

Through DC Water Works!, DC Water also will implement a skills training and placement program. Citing BLS Occupational Employment and Wage Estimate data, Mr. Gray explained that roughly 14% of the individuals with the skills and qualifications typically required for construction positions frequently used on DC Water projects reside in the District of Columbia as compared to the broader DC Water User Jurisdiction.

Accordingly, DC Water will seek to work with local development agencies and similar organizations to implement a skills training and placement program to prepare District residents for the types of jobs that are frequently sought after on DC Water projects.

The areas of training under this program may change from time to time, but shall generally be based on DC Water's construction forecast and the needs of project contractors.

The skills training and placement program will have three (3) stages:

- Stage 1 - DC Water will partner with area organizations to create a pipeline of individuals prepared and interested in becoming contractor trainees. Individuals referred under this stage will have, among other potential requirements, relevant soft skills as well as basic reading and math, OSHA training, and an introduction to basic elements of construction.
- Stage 2 – DC Water will work with qualified third party organizations to provide relevant skills training for selected participants. This training is designed to be a bridge to either an actual job or apprenticeship opportunity. Ideally, the program seeks an 80% skills program graduation goal.
- Stage 3 – DC Water will set a placement goal of 50% of the graduates from Stage 2. In support of this goal, graduates will have the opportunity to participate in an exclusive and targeted career fair with DC Water contractors. Graduates of the program will be entered into the DC Water Works! database as preferred candidates for referrals. Employment of individuals who graduate from the skills training program will count towards the DC Water Works! hiring goals for covered contractors.

### **Apprenticeship**

DC Water proposes to enhance the apprenticeship component under the permanent program to require that contractors with a DC Water contract valued at \$500,000 or greater will participate in an apprenticeship program registered with its home State Apprenticeship Agency or the District of Columbia Apprenticeship Registration Agency, and maintain the District's 3:1 journeyman to apprenticeship ratio. DC Water Works! will be used as the first referral source for new candidates for the contractors' apprenticeship programs.

### **Monitoring and Reporting**

Mr. Gray discussed the monitoring and reporting elements of the Program. To minimize the administrative burdens to DC Water's covered contractors, the program proposed to include only two new reporting elements: the Employment Plan, and a bi-monthly employment compliance report. Both the Employment Plan and bi-monthly report are similar to those under the District's First Source Program but are streamlined significantly. All other necessary information will come from existing payroll reports such as certified payrolls submitted by vendors for contracts covered by the Davis Bacon Act. DC Water also is implementing a new online reporting tool to collect information electronically.

### **Closing Remarks**

The Committee and Mr. Hawkins praised Mr. Gray for his extraordinary work and commitment. Mr. Hawkins also thanked Rosalind Inge, AGM for Support Services, Dan Bae, Director of Procurement, and Mustaafa Dozier, Chief of Staff, among numerous other staff members, for their assistance with this project. Mr. Hawkins further praised the strong collaboration between the Board, the Committee, and DC Water staff on such an important issue. He described how the group went through a very systematic process to come to this point. He emphasized that part of what makes an entrepreneurial or innovative public agency is a willingness to try things even if they don't initially succeed. By doing so, the team could gather real time data and go with what the knowledge suggests is the best route forward.

Mr. Hawkins noted that the permanent program is scheduled to start in October 2016, which will coincide with the beginning of DC Water's Fiscal Year. As always, the DC Water Works! team will continue providing ongoing reports to the Board.

Chairperson Boardman thanked Mr. Hawkins for his comments. She further stated that the priority first and foremost is to the ratepayers and indicated that these are clearly benefits that will help our community. Ms. Boardman added that it would be exceptional for DC Water to put together a program that can stand as a model for other communities.

### **Agenda Item # 2 - DC Water's Blue Drop Project**

General Manager Hawkins made a presentation to the Committee on DC Water's Blue Drop proposal. Mr. Hawkins opened by introducing Alan Heymann, Chief Marketing Officer, who has been one of the key staff members to lead this effort along with Chief Operating Officer Biju George and General Counsel Henderson Brown.

Mr. Hawkins described DC Water's initiative to create a separate, nonprofit entity called Blue Drop. By way of history, Mr. Hawkins explained that the Board had approved in the General Manager's budget an allocation of funds to develop opportunities to generate non-rate payer revenue. He stated that with increasing rate pressure in DC Water's service area and customer community, the creation of a separate, nonprofit entity can help generate net revenue to offset that rate pressure.

The primary purpose of Blue Drop will be to improve the financial health of the enterprise and reduce rate pressure within DC Water's customer community. Mr. Hawkins explained that a separate entity will allow greater transparency and financial control as well as a singularity of purpose. The expenses and income from products and services contemplated for Blue Drop will be managed apart from DC Water, making it easier to track financial investment and rate of return and help shape market strategy for offerings that have value in the consumer sector. He added that a separate entity will allow DC Water to bring its products and services to the broader market, including the private consumer market as well as governmental entities that otherwise may be reluctant to "hire" a metropolitan agency to assist its own public utilities.

Mr. Hawkins explained that the current proposal envisions a three-year time frame to launch Blue Drop. At the start-up phase, resources for Blue Drop will consist of existing staff time and an initial cash investment. Labor investment will be tracked to be clear as to the level of resources being utilized. If successful, it is anticipated the labor investment will move towards human capital hired directly by Blue Drop.

Presently, plans are that DC Water will be the sole member of Blue Drop and Mr. Hawkins will be the Board's representative. Mr. Hawkins will report to the Board and the Governance, Finance, and Budget Committees. Mr. Heymann will be the manager of Blue Drop. Expenses currently within DC Water will be designated to Blue Drop.

Ms. Boardman asked about whether the funding for Blue Drop will come from DC Water, noting that the funds may be allocated to another 'bucket' but they nevertheless come from one source. Mr. Hawkins affirmed that DC Water will be the funding source, at least initially, and added that the stream of funding will be clearly allocated and tracked to ensure appropriate controls over the resources that DC Water will be investing into Blue Drop.

Ms. Boardman asked whether Blue Drop has been set up structurally at this point. Mr. Hawkins answered that preparation work on the organization of Blue Drop is underway. DC Water is collaborating with preeminent advisors, including the author of the D.C. non-profit statute, for guidance on creating the nonprofit entity. As to governance, there will be a board of directors for Blue Drop.

Ms. Boardman emphasized that the Board of Directors for DC Water should exercise control over Blue Drop so that the Board is not inadvertently preempted by staff, executive leadership, or others on Blue Drop's board of directors. Mr. Hawkins agreed. Mr. Heymann responded that the operating agreement for Blue Drop will specify those terms.

Mr. Hawkins then described the products and services currently envisioned for Blue Drop. The first is a product called Bloom™, an advanced proprietary soil product that DC Water currently offers to the consumer marketplace. The second is expansion of ART (Advancing Research and Technology), also a service that DC Water currently provides. The third will be peer-to-peer consulting services. This area is being developed, but DC Water has already received its first contract in New Jersey for consulting services arising out of its Clean Rivers expertise. External affairs, customer outreach, branding, lead, and fleet management, are examples of additional consulting services DC Water is exploring. The fourth is a one-stop portal service. The portal service does not currently exist within DC Water but it is an exciting new prospect that brings together services and modes of communication into one system. This cutting edge approach to consumer outreach is already being advanced by major companies such as Google and it presents an exciting possibility for Blue Drop. Every year the challenge to manage rate pressure

will get tougher. The portal is probably the most talked about idea or issue because it minimizes up-front costs of connecting to the customer. DC Water can also license its expertise to other entities, including the portal service.

Committee Member Lake inquired about whether water meter management, which conceivably could be outsourced to a third party vendor, is something that could be offered by Blue Drop. Mr. Hawkins answered that it is a service offering certainly worth examining and this idea touches upon a broader effort that underscores Blue Drop, namely, to scale DC Water's intellectual property for use in the consumer market, gaining some of the initial investment back.

Mr. Lake added that other entities providing public utility services, such as WSSC, are good examples of potential customers in the market for Blue Drop products and services. Mr. Hawkins agreed. Mr. Heymann added that one opportunity currently being explored is licensing DC Water's products, such as Bloom, to other entities for precisely that reason. Mr. Hawkins closed the discussion by indicating that this presentation describes the general framework of Blue Drop with the intention to discuss further details with the full Board at the next retreat, but now is the time to consider new methods for revenue generation for the benefit of DC Water's ratepayers.

### **Other Business**

The Committee entered into an executive session to discuss proprietary cybersecurity matters.

### **Conclusion**

There being no further business Chairperson Boardman adjourned the meeting at approximately 11:00 a.m.





**DISTRICT OF COLUMBIA  
WATER AND SEWER AUTHORITY**

**BOARD OF DIRECTORS**  
Human Resources and Labor Relations  
Committee  
July 13, 2016

**MEETING MINUTES**

**Committee Members Present**

Bradley Frome  
Matthew Brown  
Ellen Boardman  
Rachna Butani  
Shirley Branch

**DC Water Staff Present**

George Hawkins, CEO & General Manager  
Henderson Brown, General Counsel  
Mustaafa Dozier, Chief of Staff  
Linda R. Manley, Board Secretary

**1. Call to Order**

Chairman, Bradley Frome called the meeting to order at 11:02 a.m.

**2. Medical and Dental Vendor Selection**

Otho Milbourne, Benefits Manager, gave a presentation on DC Water’s medical and dental vendor selection process. The process used was the standard request for proposal format (RFP), where panel members evaluated the submissions based on provider capabilities, experience of the organization, experience of the staff within the organization, and past performance. Pricing was evaluated separately by the Procurement department. Aon Hewitt, DC Water’s Benefits consultant, was also used to analyze the proposals. The following is a snapshot of the evaluation results:

Category	RFP Vendors Participated	Score Card	Recommendation to Board	Comparative Advantage
<b>MEDICAL</b>	Aetna Care First Blue Cross Blue Shield Cigna United Healthcare	70% = Technical 30% = Pricing	CIGNA – PPO & HMO 1 Year Base with 4--1--Year Options	Cigna was selected because of prior history, flexibility to design custom programs for the Authority’s populations, highest budget reserves for wellness incentive activities and excellent customer service representation.
<b>DENTAL</b>	Aetna Cigna Delta Dental Dominion Dental United Concordia United Health Care	70% = Technical 30% = Pricing	DELTA DENTAL – PPO 3 Year Base with 2--1--Year Options  UNITED CONCORDIA- HMO	Delta Dental and United Concordia were chosen because both have prior history with DC Water. They held highest in-network match by top providers used by DC Water employees, consequently representing the /lowest network disruptions. Past performance/service was satisfactory.

Human Resources and Labor Relations Committee  
Minutes for July 13, 2016  
Page 2 of 2

Ellen Boardman asked if the Benefits Branch conducts yearly analysis of what other vendors provide, for consideration when exercising the option years. Otho Milbourne relayed that such is not conducted annually, rather, the pricing and performance components are reviewed on the year-to-year basis. Ms. Boardman also inquired about the Fact Sheet scoring methods used. Mr. Milbourne explained that the scoring method used tracks points in the reverse order where the lowest number tallied equates to highest score and vice versa. Bradley Frome inquired as to the degree to which employee satisfaction is a consideration in the vendor selection process. Mr. Milbourne reassured the Board that employee's opinion and feedback is incorporated in the decision making processes.

### **3. Employee Engagement Presentation**

Mustaafa Dozier's presentation, *Becoming Irresistible*, focused on Blue Horizon Goal #1: to develop, maintain and recruit a high performing workforce, in DC Water's strategic plan. He indicated that future meetings will include reports from Human Capital Management on the department's efforts to achieve the goal. The main thrust of Mr. Dozier's presentation focused on the concept of creating an organization with high retention that could also be considered "irresistible" making it hard for employees to leave their employment with the Authority.

Mr. Dozier's presentation focused on five areas that contribute to an irresistible culture: 1) culture; 2) engagement; 3) purpose; 4) leadership; and 5) coaching. He provided examples as to each competency or trait and how they were being applied by HCM in their efforts to fulfill goal one. Mr. Dozier, explained the relationship between culture and engagement. He also highlighted, Advancing Blue, the Authority's new performance management system and its use of coaching as the key component of managing employee development. Additionally, he provided an update on Leading Blue the Authority's in-house leadership development program which is under development.

Board members along with Mr. Hawkins expressed their gratitude to Mr. Dozier for providing such an informative presentation, and highlighting many of the positive operations within the organization.

### **4. Executive Session**

The executive session commenced at 12 p.m.

### **5. Adjournment**

The meeting adjourned at 12:45 p.m.



**District of Columbia  
Water and Sewer Authority**

**Board of Directors**

**Environmental Quality and Sewerage  
Services Committee Meeting**

*Thursday, July 21, 2016*

*9:31 a.m.*

**MEETING MINUTES**

**Committee Members**

Bo Menkiti, Chairperson  
Matthew Brown, Board Chairman  
Howard Gibbs  
Elisabeth Feldt (via telephone)

**DC Water Staff Present**

George Hawkins, CEO and General Manager  
Len Benson, Chief Engineer  
Linda R. Manley, Secretary to the Board  
Henderson L. Brown, General Counsel

**I. Call to Order**

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

**II. AWTP 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 June 2016 was 279 MGD. June 2016 was a relatively dry month with reduced precipitation levels and as a result, no excess flow was reported during this period. 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 permit limits. The enhanced nitrogen removal facility is performing well, producing a low total nitrogen (TN) concentration of 2.90 mg/l. The total tonnage of nitrogen discharged in the calendar year, through June 2016 was approximately 1.4 Million lbs and is on target to meet the permit limit for 2016.

Mr. Tesfaye further stated that overall, the Plant performance was excellent with 100% permit compliance. In June, biosolids production was 486 wet tons per day (wtpd) with all of the production going to land applications. 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 CHP facility generated an average of 120 MWH/day, making up 19% of total energy consumed at Blue Plains (i.e., 620 MWH/day) while the average energy purchased from PEPCO was 500 MWH/day. Mr. Tesfaye stated that CHP-generated power was lower for the month of June as compared to the preceding month mainly because of performance-related tests

that required use of digester gas (which otherwise would have been used for power generation). The Committee inquired if the testing had been completed. Mr. Tesfaye responded that the CHP facility was still under commissioning and therefore more performance-related testing could be possible in the future.

The Committee inquired if there was a timeline as to the commercialization of the Class A Biosolids being generated. Mr. Tesfaye responded that DC Water is aggressively developing a marketing plan to this end and an update will be provided to the Board when sufficient progress has been made. The Committee further inquired about the cycle/frequency for the performance related tests of the CHP facility. Mr. Tesfaye responded that these performance tests are a requirement of the contract and that it is difficult to definitively state when they will be completed because such tests not only have to be conducted but a satisfactory result (as prescribed in the specifications) must be attained before the tests are deemed no longer necessary to repeat. He further added that DC Water will update the Board regarding a timeline of completion of performance testing in the near future. The Committee also asked if DC Water was considering intellectual or technological protection measures in regards to the use and application of its Biosolids-derived product. Mr. Tesfaye responded that this is being considered as part of the marketing plan.

### **III. GMU EXECUTIVE MBA CLASS OF 2016 CAPSTONE PROJECT: MICROGRID PROPOSAL FOR POWER STABILITY AT THE BP WASTEWATER TREATMENT PLANT**

Ms. Maureen Holman, Sustainability Chief, DC Water, began the presentation by introducing the team from George Mason University and mentioned that in addition to addressing the subject topic, the intent of this exercise was to demonstrate that research collaborations between leading, local academic institutions and DC Water can be exploited for the benefit of both stakeholders. Ms. Holman also mentioned that the information provided to the research team was of a very high-level and purposely lacking in specifics due to the public nature of the team's research and the sensitivity of DC Water's operational data.

Mr. Bob Cross, accompanied by Ms. Holman, delivered a capstone presentation that included:

- a brief problem statement on power reliability,
- an informational background on the Blue Plains Wastewater Treatment Facility,
- a general discussion of power instability and resulting impacts,
- a discussion on a potential Microgrid solution
- and recommended areas for further study and consideration

In summary, Mr. Cross reported that a potential Microgrid solution at Blue Plains could help balance power loads and power generation during unanticipated power outages and provide resiliency from main power grid failures. Some of the recommended areas for further study included:

- site specific cost and engineering analysis,
- validation and refinement of assumptions and findings, and
- development of a long term strategy for power resiliency that would comprise of mapping current power needs, determining contingency power needs and looking into options for additional power generation

#### IV. ACTION ITEMS

##### JOINT USE

1. Contract No. DCFA #423, Black & Veatch Corporation
2. Contract No. DCFA #474, CDM Smith
3. Contract No. 14-PR-DFS-08, M & N Contractors, LLC.

Mr. Len Benson, Chief Engineer, DC Water, presented action items 1 and 2. Mr. Dan Bae, Director, Procurement, presented action item 3.

**Action Item 1:** Request to execute a supplemental agreement contract to continue to provide a basis of design report, design services, bid phase services and engineering services during construction for the upgrade of secondary treatment facilities for Enhanced Nitrogen Removal (ENR-North) and for Filtrate Treatment Facilities (FTF).

The Committee inquired as to why there was a significant difference between the original duration and costs of the contract compared to the duration and costs of the requested supplemental agreement. Mr. Benson responded by stating that this was typical of the procurement process that DC Water employs for professional services contracts of large magnitude and that these contracts usually have multiple phases spanning more than a few years in duration. Mr. Benson added that future supplemental agreements are not anticipated at this time, but may be necessary due to unforeseen occurrences during the remaining construction. The Committee further inquired if the 'extended construction duration' mentioned under the header 'Current Supplemental Agreement Scope' was due to the listed additional out of scope items and complications. Mr. Benson responded in the affirmative.

**Action Item 2:** Request to execute an architectural and engineering services contract to provide services pertaining to the expansion and upgrades of the existing Water and Sewer SCADA system.

The Committee inquired if the prime contractor (CDM Smith) was locally headquartered or not. Mr. Benson responded that the contractor was headquartered outside of Washington D.C. but has a satellite office in the District.

**Action Item 3:** Request to exercise option year two (2) of contract to provide the District of Columbia Water and Sewer Authority (DC Water) with janitorial services at DC Water office space and facilities.

The Committee recommended all three (3) Joint-Use actions to the full Board.

##### NON JOINT USE

1. Contract No. 150130, Bradshaw Construction Corp.

**Action Item 1:** Request to execute a construction contract for a sanitary sewer to be relocated under Oregon Ave NW and Bingham Drive NW in order to eliminate the otherwise necessary rehabilitation of the an existing creek bed sanitary sewer in the environmentally sensitive and difficult-to-access Pinehurst Branch East in Rock Creek Park.

The Committee recommended the Non-Joint Use action to the full Board.

## V. OTHER BUSINESS/EMERGING ISSUES

### BRIEFING ON DC CLEAN RIVERS PROJECT: POTOMAC GREEN INFRASTRUCTURE PROJECT.

Mr. Carlton Ray, Director, DC Clean Rivers (DCCR) Project, gave an update on the DCCR Potomac River Green Infrastructure (GI) projects no. 1, 2 and 3, all located in the Georgetown area. Mr. Ray restated that although the consent decree GI requirements dictate the amount of impervious areas to be managed under these projects, they also allow flexibility on where to construct the GI provided the overall acreage requirement is met and the construction occurs within the pre-approved sewersheds. Mr. Ray mentioned that under the Potomac River GI projects, project no. 1 has a 44-acre requirement while projects no. 2 and 3 have 46- and 43- acre requirements, respectively.

Mr. Ray stated that the original plan for construction of the first Potomac GI project (i.e., project no. 1) is to meet the 44- acre requirement by constructing in two separate geographic areas. The construction contract for this project is scheduled to be awarded June 23, 2017 with construction completion scheduled for June 2019. Some of the GI technologies being considered for construction include permeable alleys, permeable parking lanes, parking lane storage, planter bioretention, curb extension bioretention and crosswalk storage.

Mr. Ray summarized the project development approach of the Potomac GI project dating back to 2011 by mentioning that DC Water has been proactively and consistently engaged with the relevant stakeholders (public, private and regulatory) by hosting numerous low impact development (LID) summits, workshops and public meetings that resulted in the approval of the consent decree modification by the Environmental Protection Agency (EPA) and by the neighborhood's advisory commission (ANC2E) in 2014. Mr. Ray mentioned however, that since the consent decree was entered and planning and design work on the GI projects have commenced, there have been a number of issues that have been and continue to be raised by ANC2E. Some of these concerns and issues include:

- Doubts as to whether Combined Sewer Overflows (CSOs) are actually occurring
- Possibility of using existing sewer system to control CSOs
- Doubts as to the reliability of GI
- Potential loss of neighborhoods historic character
- Durability of GI
- Potential disruption to other utilities
- Disruption to residential parking due to construction

Mr. Ray stated that DC Water is continuing to work with the ANC2E and all other relevant stakeholders to address any outstanding issues and allay concerns about the proposed GI projects. Mr. Ray and Mr. George Hawkins, CEO and General Manager, DC Water also mentioned that the risk mitigation strategy built into these projects includes the approach of slightly modifying the original construction sequence whereby GI projects that have greater community acceptance will be built first and results of post-construction from these areas will be used to showcase the benefits of remaining GI projects in adjacent neighborhoods.

The Committee inquired if the ANCs have a formal approval role in the decision to construct these projects. Mr. Ray replied that although the ANC may not have a formal approval or rejection role in consent decree governed projects, it is DC Water's intent to have a consensus from the ANC

to successfully complete these projects.

Mr. Ray summarized the approach going forward, of the DCCR Potomac GI projects as follows:

- DC Water will maintain its geographic flexibility in regards to construction of the first Potomac GI project
- DC Water will focus the first project on CSO 029 drainage area and Georgetown University on-campus and off-campus properties (part of CSO 028 drainage area)
- DC Water will evaluate community acceptance of proposed GI projects in CSO 027 drainage area during post-construction monitoring of above mentioned projects
- 

The Committee convened into executive session and reconvened into open session.

The Committee is recommending to the Board for approval the Hickey Run Settlement and approval for the COO to execute the settlement agreement.

## **VI. ADJOURNMENT**

Meeting adjourned at 11:05 a.m.

### **Follow-up Items**

1. Assistant General Manager, Blue Plains: Provide an update to the Committee on development of a marketing plan for commercialization of DC Water's biosolids generated product.
2. Assistant General Manager, Blue Plains: Provide an update to the Committee on when performance-related tests of the CHP facility will be complete.



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

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

**MEETING MINUTES  
THURSDAY, JULY 21, 2016**

**Present Board Members**

Rachna Butani Bhatt, Chair (via phone)  
Howard Gibbs, Vice Chair  
Matthew Brown, Board Chairman  
Bo Menkiti (via phone)

**Present D.C. Water Staff**

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

**I. Call to Order**

Ms. Butani Bhatt called the meeting to order.

**II. Water Quality Monitoring**

**A. Total Coliform Testing (TCR)**

Charles Kiely, Assistant General Manager for Customer Care and Operations, stated that as reported in June there was one positive then and also one in July. Regarding the distribution system and the TCR rule, he indicated that D.C. Water is doing very well. Mr. Kiely stated that they expect to get a positive from time to time, and when they do get a positive, they test upstream and downstream to make sure it is not in the distribution system. In June and July those results were negative. Mr. Gibbs asked if the positives were in the same location and Mr. Kiely replied that they were in different locations.

**B. Lead and Copper Rule Monitoring**

Mr. Kiely indicated that they officially filed their report with EPA Region III. They were at 2 parts per billion, which is exceptional for D.C. Water. They achieved optimum corrosion control with respect to the treatment process. The second monitoring test from July 1 through December 31 has just started and there are no results yet for the month of July.



### **III. Fire Hydrant Upgrade Program**

David Wall, Distribution Manager, reported that out of approximately 9,500 public fire hydrants maintained by D.C. Water, there was a slight increase in out-of-service hydrants. There are 80 out-of-service, up from 59. This increase was from hydrants impacted by construction projects. There was an increase in defective hydrants from 29 up to 34. Mr. Wall stated that 19 hydrants were out of service more than 120 days. He stated that a correction will be made and provided to the Committee. The D.C. Water crews are focusing on those and also working to keep the day to day numbers down. Ms. Butani Bhatt asked if the construction projects were long-term and if they should be concerned about the number, or are they short term. Mr. Wall stated that they are relatively short term.

As depicted on the map, there were no clusters of out of service hydrants.

### **IV. D.C. Water Customer Satisfaction Survey (Key Findings by Ward)**

As requested recently by Committee members, Lauren Preston, Director of Customer Care, provided an update on the survey broken down by wards to see if there were differences in the various categories of customer satisfaction measurement. The report distributed to the Committee members shows the satisfaction breakouts by ward. This data can be reviewed on D.C. Water's website. She stated that they found across all wards that the Customer Satisfaction Survey score across all wards was 76 percent but they do vary by ward. Ward 1 was the lowest at 72 percent and Ward 7 was the highest at 82 percent for overall satisfaction ratings. The details showed that different things mattered to different wards. They are proud that the strongest scores overall were for how quickly and well they respond to emergencies, how seriously they take water quality, how much they care about the environment, and how efficient they are in their operations.

Ms. Preston stated that no one rated D.C. Water as very dissatisfied. In the area of water quality, they were focused on customers' perceptions of the taste of the water and the physical quality or perception of its safety. In Ward 7 there were very good scores and Ward 6 had the highest scores. Ms. Preston indicated that in most cases they liked the physical characteristics of the tap water but their perception of overall water quality was lower across the board.

Ms. Preston reported that secondary satisfaction was customers' perception of the safety of the drinking water and the taste of the drinking water. They saw differences by ward. In Ward 7 they thought the taste of the drinking water at 7 percent was higher than safety. In Ward 2 it was the opposite—higher in safety than taste.

In billing they looked at two things—convenience of bill pay options and the accuracy and timeliness of the bill, what happens when something goes wrong. There was a wide spread of results. Overall people were happy with the options available for pay, above 80 percent in almost every ward. When a customer has a problem and needs to call to get a bill corrected, that was much lower. Ms. Preston stated that that is why they are investing in the Automated Meter Reading (AMR) rehabilitation. Ms. Butani Bhatt thought it was interesting that people appear to be upset about the promptness in correcting billing errors. She wondered if in the lowest ratings in Ward 2, how many people call in about errors. Ms. Preston responded that they do track how many call in with billing questions in general, but they would have to get that information. When they call in with a question, it does not necessarily mean there is a billing error. They also track how many bills have to be corrected. Ms. Butani Bhatt asked for data on

the number of people who responded to this part of the survey from Ward 2. She wanted to know if it was a small number and if that was why it was at 40 percent. Ms. Preston said that they would get an answer back to the Committee. Ms. Butani Bhatt said that she wanted them to dig deeper into this category because it is so important. Mr. Brown asked if the survey was done before or after the new contract for bill paying options for the service center on North Capital Street. Ms. Preston stated that this was done before the contract and before they offered the pay option at local convenience stores. Mr. Brown indicated that he remembered that there was some concern earlier for ensuring that Ward 7 and 8 customers had options. He is curious as to what the results will be now that the change in pay options has been made.

Ms. Preston continued to present a summary of the results by ward and the Committee continued to make comments and ask questions.

## **V. Emerging Issue of Lead in Schools**

Mr. Kiely stated that they wanted to put this item on the agenda because of all the activity going on in the District regarding lead in water at schools. They wanted to keep the Board informed. Mr. Hawkins reported that he and Chairman Brown will convene their team to further look at everything they can think of on lead in water. This is in preparation for a meeting with the Mayor so that options can be placed on the table of what can and cannot be done by D.C. Water and outside agencies. He indicated that they will come back immediately with alternatives. Chairman Brown thanked General Manager Hawkins about his attention to this important issue and all of its efforts to work with the District.

Maureen Schmelling, Water Quality Manager, started her presentation on the sources of lead and then spoke about the facilities affected, including schools, larger buildings, and day cares. For schools and larger buildings their service lines are typically three to four inches because they have more toilets and taps and require a larger water supply. Typically, these buildings do not have lead services but they do have lead solder which connects the pipes together. In 1986 Congress passed a law that reduced the allowable lead content from 50 percent to .2 percent. Depending on how well a plumber did the job, there may be a little amount of solder that is exposed to the water or a larger amount. Over the years through erosion and corrosion at joints, small particles have been released. If you take a water sample, it can be detected. The brass is also a problem and in 1996 Congress reduced lead content to less than 8 percent in brass, and then in 2014 it was reduced to .25 percent.

Ms. Schmelling stated that the question is why it is so difficult to measure the lead in these facilities. In large buildings there are numerous pipes to provide the larger volume of water required, and therefore the possibility for lead leaking into the water from the taps or water fountains increases. It is not cheap to do this monitoring, so a lot of programs are only monitoring annually. Especially in schools, this issue becomes really critical. In addition, water fountains are at risk. Day cares have separate challenges as a group because they may be in single family homes, churches, etc. There may also be galvanized iron pipe. Especially in churches, there will be a smaller amount of water use at different locations and times in a building. When a day care center is opened up in a church, this may result in higher lead releases.

Ms. Schmelling talked about the District laws and how D.C. Water can help in educating and minimizing exposure. She stated that number one is cleaning aerators especially during filter installation. This is where particles collect. Other issues she raised included the flushing of pipes with lead solder after faucet and pipe replacement plumbing occurs. Ms. Schmelling

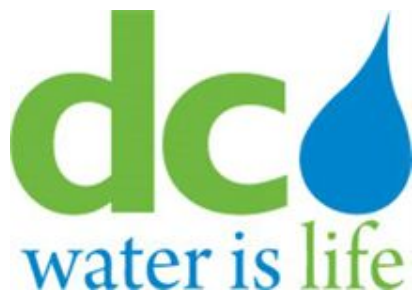
indicated that in the future when filters are replaced, it must be done by estimated volume and not just by time. They will work with others to inform manufacturers about when the filter changes should occur.

Apartment buildings are also an issue. More people in apartment buildings are requesting water testing kits and the more they are tested, the more will be found. Ms. Schmelling stated that they have seen a couple of apartment buildings with elevated lead levels. Construction in these buildings is a major concern. She wants to make sure there is communication with residents, property managers, and owners. Mr. Gibbs asked what action would be taken if tests in different parts of apartment buildings come back above the action level and not throughout the entire building? Would D.C. Water have to take action? Ms. Schmelling stated that they will identify the sources and what action should be taken to remedy the problem—flushing, cleaning aerators, change faucets and fountains. Once this is done, they can get more tests done. Mr. Kiely stated that seven or eight years ago an act was passed during the lead crisis when they were doing apartment buildings as follow-up for the lead and copper rule. They had a problem tracing lead sources because when there is a 200-unit apartment building, it is hard to get all 200 people not to use the water so that they can trace the source. The District enacted a law that required that only one or two apartments had to be tested. Mr. Hawkins stated D.C. Water will be monitoring and advising instead of having a direct responsibility for replacing lines and fixtures on the premise side. He indicated that this is placing a larger demand on D.C. Water's resources and this has to be figured out from a management and a business operations perspective.

Ms. Butani Bhatt raised the question about the one part per billion requirement and whether it will be a District regulation or something else. Ms. Schmelling replied that the District will use that regulated level when they test the filtered water from the designated water sources. All buildings functioning for children such as schools and day cares will receive filters for all water sources. When lead is over one part per billion, they will be forced to take them out of operation until remedial action is completed. The District has never established its own action number but had used the 15 parts per billion which was not related to a health action level.

Ms. Butani Bhatt asked if D.C. Water has been heavily involved in the lead in drinking water at District schools and Ms. Schmelling confirmed that they had been working closely with the school system and District to help move procedures along and to develop recommendations for using filters on the water sources and also monitoring and testing. Mr. Hawkins reported that the one part per billion is the level that the City made on its own. D.C. Water has been involved in providing technical and analytical support and it will continue to assist the District in achieving its goal.

Ms. Butani Bhatt asked for further comments and questions from Committee members and there being none, the meeting was adjourned.



## DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

### Board of Directors

*Audit Committee*

*Thursday, July 28, 2016*

*9:30 a.m.*

*Meeting Minutes*

#### **COMMITTEE MEMBERS PRESENT**

Nicholas Majett, Chairman  
Matthew Brown, Board Chairman  
Elisabeth Feldt  
Sarah Motsch

#### **DC WATER STAFF PRESENT**

Biju George, Chief Operational Officer  
Meena Gowda, Principal Counsel  
Henderson Brown, General Counsel  
Linda R. Manley, Secretary to the Board

#### **On the Phone:**

Bonnie Kirkland  
Ellen Boardman

#### **INTERNAL AUDIT STAFF PRESENT**

Dan Whelan, RSM US LLP  
Jennifer Murtha, RSM US LLP  
Charles Barley, Jr., RSM US LLP  
Jill Reyes, RSM US LLP  
Kelly Johnson, RSM US LLP

#### **Call to Order (Item 1)**

Mr. Nicholas Majett called the Audit Committee meeting to order at 9:30 a.m.

#### **Internal Audit Update (Item 2)**

Mr. Dan Whelan provided a review of the agenda. He asked the Committee for feedback from the briefing memo RSM provided prior to today's meeting, and noted that RSM had a report to be discussed during the Executive Session.

Ms. Jennifer Murtha presented the FY 2016 Internal Audit plan status update. She mentioned that five audits were in progress and Hotline management and follow-up remediation are on-going. Ms. Murtha said that there are three plan modifications. The Business Development Plan scope has been expanded from a rapid assessment to a full

scope Internal Audit. The Maintenance Services work order audit has been pushed forward to FY 2017 audit year and the Customer Data Collection and CIS audit has been replaced with HCM/Employee Privacy Review.

Ms. Kelly Johnson followed with the status update on audit findings by presenting both prior to FY 2015 and FY 2015 follow-up. RSM closed five prior to FY2015 findings and two FY 2015 findings since the last Committee meeting. RSM was able to close an action deferred item, so now all action deferred items are related to Union approval of policies. Progress has been made in the Customer Care and Support Services areas. Ms. Johnson revealed that 85% of prior year findings had been closed, 10% remain open, and 5% are action deferred.

Ms. Johnson then took the Committee through the Training, Licensing and Certification audit. She reminded the Committee that there were seven audit findings relating to training prior to FY 2015. Those findings were closed and will be replaced with this new audit report and related observations. RSM had seven observations, of which three were categorized as high risks. The first high-risk finding was regarding the identification and monitoring of required certifications and licenses. DC Water maintains a listing of all of its licenses and certifications, but there were inconsistencies and missing data on the spreadsheet listing. Ms. Johnson noted that not all certifications are reviewed. Ms. Johnson presented the second high-risk finding regarding identification and monitoring of training requirements. She informed the Committee that RSM found discrepancies in requirements for training between departments, and discrepancies in which departments were uploading training information into Cornerstone. Management has been made aware of this finding and has already begun to address the need to solidify training requirements. The third high-risk observation identified related to training, tuition, and conference approval and payment. Out of 25 samples tested, eight training and development approvals circumvented Learning & Development approval as required by DC Water policies. Two of these eight were paid by purchase card. Additionally, RSM found some conferences have a training component. Management is now working on identifying when a conference should be considered training, versus just a conference. RSM will continue to follow up on all items noted.

Ms. Jill Reyes presented a summary of the Contract Monitoring and Compliance Audit, Part II. She reminded the Committee that Part I was discussed during the April Committee meeting and covered the Security Department contract. Further, she said, this audit examines the executed contract monitoring process, since after execution, contract monitoring is pushed out and decentralized to the COR/COTR. RSM reviewed Fleet, Janitorial, and Biosolids contracts. There is one high-risk Authority-wide observation relating to COR/COTR training. Management is in the process of developing and implementing appropriate training to mitigate this risk. There was a formal COR/COTR training 5 years ago but it was not DC Water-specific, and was based upon Federal regulations.

Ms. Johnson discussed the first contract that was selected for this part of the audit. M&N Janitorial Services provides janitorial services for DC Water. RSM had one high-risk observation. The RFP stated that personnel are screened and required to obtain police clearance under the contract. However, RSM found that required background checks have not been monitored. The COTR will work with M&N to confirm requirements are met. Additionally, Procurement will issue a memo to all COR/COTR reminding them to monitor all key contractual requirements.

Next, RSM examined the Centerra contract. They provide fleet management services to DC Water. RSM had one high risk observation pertaining to outdated contract requirements. Some terms and condition of this contract were found to be obsolete, because the Authority implemented a new fleet management system, FleetWave, since the contract was executed, yet no modification to the original contract was made. FleetWave has increased the transparency of Centerra's work and has shifted many of the responsibilities back to DC Water, but there is a risk that the contract cannot be enforced since it is not reflecting current roles. To mitigate this risk, management has agreed to modify the contract during renewal.

The last contract examined during this audit was the Nutri-Blend Biosolids contract. Nutri-Blend provides labor, equipment and supplies for hauling and utilization of biosolids. She mentioned that this contract presents less risk because it is monitored by Maryland Environmental Services and gets audited by the National Biosolids Partnership. Ms. Johnson informed the Committee that Nutri-Blend has received gold-status on these audits for the past 10-years. There were no high-risk findings for this contract. There were two moderate and one low risk observations.

Chairman Brown asked how significant an issue the Authority-wide observation related to training could be, and Ms. Reyes stated that there is significant risk, given the number of contracts held at the Authority, especially as the contract requirements change over time and changes in COR or COTR. At the request of Chairman Brown, Dan Bae, Director of Procurement, gave the Committee an estimated timeline for remediation. First, Procurement will update the list of all CORs and COTRs. Next, they want to develop a checklist for each COR and COTR to track their monitoring responsibilities. This checklist should be updated and reevaluated each year. Procurement will go through the biggest contracts first and prioritize those that are key to the Authority's operations. Mr. Bae is seeking to implement the new COTR training by late spring or summer of 2017. Eventually, he intends to implement a technology to monitor COR/COTR responsibilities to automate contract compliance by summer 2017.

Ms. Reyes then presented the ROCIP Savings Analysis. She reminded the Committee that the analysis was requested by the Finance & Budget Committee, and the results would be reported to them later that day. She informed the Committee that Aon Group

was the administrator for ROCIP 1, 2, and 3, but noted that Wells Fargo has now taken over as of R4. RSM evaluated their procedures and controls, reporting structure, reviewed the AonWrap system, and performed testing on the safety inspection process. Internal Audit examined the ROCIP savings and validated it as of February 2016. Ms. Reyes revealed that RSM was able to validate that the program is saving money. However, some formulas were incorrect in the spreadsheets maintained by Aon. The RSM recalculation of February 2016 savings was higher than Aon's figure as a result. She said the cost of the program as a percentage of contract value per industry benchmark between 1.5 and 2.0%, and reported DC Water is meeting that. RSM identified one high risk observation in the control and procedural portion of the audit, relating to the liability trend and adjustment. Whatever percentage is recorded as estimated liability was recorded based on the estimated contract values from the beginning of the contract, but had not been adjusted for actual contract value modifications. To mitigate this risk, RSM recommends that management adjusts contract values to support the liability and perform reconciliation between the general ledger and the various third-party reports. Management has already begun implementing procedures to mitigate this risk.

Ms. Johnson provided the Hotline update. She noted that during April Audit Committee meeting, RSM reported 10 cases were open. Since then, RSM has received 8 calls, 4 of which were fraud claims and 4 other. 6 cases have been closed, and 12 cases are currently open. She disclosed that RSM has reinstated their regular quarterly meeting with the Office of General Counsel, Labor Relations and Security to discuss ongoing investigations. Mr. Majett asked whether there have been issues with the hotline. Ms. Reyes stated that there have been issues with updating the database with claim information, but that there have been no issues, they RSM is aware of, with the hotline being inaccessible.

### **Executive Session (Item 3)**

There was a motion to move into Executive Session by Ms. Feldt 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 10:07am.

### **Adjournment (Item 4)**

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

### **Follow-up Items**

The Audit Committee requested that Management and Internal Audit investigate and report back on the following items:

1. Regular updates on COR/COTR contract monitoring training and compliance.



**DISTRICT OF COLUMBIA  
WATER AND SEWER AUTHORITY**

**Board of Directors**

**Finance and Budget Committee**

**Thursday, July 28, 2016**

**11:00 a.m.**

**MEETING MINUTES**

**Committee Members**

Timothy L. Firestine, Committee Chairperson  
Matthew Brown  
Sara Motsch  
Ana Harvey

**DC Water Staff**

George Hawkins, CEO & General Manager  
Mark Kim, Chief Financial Officer  
Henderson Brown, General Counsel  
Linda Manley, Board Secretary

**Other Guests**

Dan Hartman, Public Financial Management (PFM)  
Eric Brown, Public Financial Management (PFM)  
Eric Letsinger, Quantified Ventures  
Jose Gaztambide, Quantified Ventures  
David Goodman, Squire Patton Boggs

**Call to Order**

Chairperson Timothy L. Firestine called the meeting to order at 11:00 a.m.

**June 2016 Financial Report and Year End Projections**

Mr. Mark Kim, CFO, reported that with 75 percent of the fiscal year completed, financials are on track with budgetary expectations and targeted performance metrics through this reporting period with the exception of capital disbursements.

Total revenues are at \$430.5M or 74% of budget. Mr. Kim noted that projected year end revenues are expected to be within +/- 1% of budget due primarily to the federal government's share of the Water System Replacement Fee, which will not be paid until FY 2018. Since DC Water bills the federal government two years in advance, the projected FY 2016 revenue shortfall is a timing difference and the Authority will receive the revenue as part of the federal true-up process.

Operating expenses are below target at \$343.2M or 63% of budget with savings primarily due to underspending in the contractual services, supplies and chemicals, and utilities categories relating to the reduction in Biosolid's hauling cost, alternative treatment process of digestion and lower electricity cost relating to the CHP, respectively.



Capital disbursements are at \$426.3M or 78% of budget. Mr. Kim noted capital projects are projected to be slightly over budget by \$15M or 2%, which will add pressure on the capital budget, but it is expected to be offset by underspending in the capital equipment category.

Mr. Kim briefly reviewed the performance of the investment portfolio which is currently earning 0.80%, noting that all investments are consistent with the Board adopted Investment Policy.

Mr. Firestine asked about the increased up-tick of the number of delinquent accounts. Mr. Kim responded that the Finance team and Customer Service closely monitors delinquencies and would report back to the Committee if any issues warrant further attention.

### **Rate Stabilization Fund Overview**

Mr. Kim provided an overview of the Rate Stabilization Fund (RSF) policy. At the request of the DC Retail Water & Sewer Rates Committee, staff was asked to review the RSF policy to consider expanding its use not only to mitigate the impact of water and sewer rates, but also to consider other charges and fees, in particular the Clean River Impervious Area Charges. The Rates Committee also requested the Finance and Budget Committee to consider establishing a target reserve level for the RSF.

CFO Kim stated the purpose of the RSF policy was to assist in the mitigation of annual rate increases to avoid spikes and allow for gradual rate increases, and that the fund is governed by the Authority's Master Indenture, which only permits surplus funds to be used to contribute towards the RSF. He noted that according to the Master Indenture, the General Manager may determine the amount to transfer into the RSF.

Mr. Kim further explained that over \$114M has been withdrawn from the fund between FY 2008 and FY 2015, primarily in anticipation of peak capital spending over that time period. In response to committee members' inquiries, he provided detailed annual contributions and withdrawals for FY 2008 – FY 2015. He further noted that the projected RSF balance is expected to increase to approximately \$100M with no withdrawals over the next 10 years. Management's target end balance of \$100M will help to maintain level rate increases through peak capital spending in the next 10-year period.

### **FY 2016 Projected Net Cash Surplus**

Mr. Kim then made a formal recommendation to the Committee on the use of the FY 2016 projected net cash surplus of \$13.4M. He stated that management's recommendation is to transfer \$10M into PAYGO with the remaining \$3.4M to be held in cash. The Committee accepted this recommendation.

### **Environmental Impact Bond Financing Overview**

An overview of the Environmental Impact Bond (EIB) was jointly presented by Mr. Kim and Mr. Hartman of PFM. DC Water is structuring an EIB to finance the first project (Rock Creek Project A or "RC-A") in the DC Clean Rivers Project's Green Infrastructure (GI) Program. Mr. Kim explained that the investors will be repaid based upon the effectiveness of GI in managing the volume of stormwater runoff in RC-A. Mr. Kim also stated that the intended purpose of the EIB is to mitigate the financial risk of loss associated with a failure of green infrastructure to manage stormwater runoffs. As requested by the Committee at its meeting in June, Mr. Kim compared both the costs of issuance and true interest costs of the EIB with a traditional, tax-exempt bond financing. Mr. Kim concluded that the expected costs of issuance are significantly lower for the EIB than for a comparable traditional, tax exempt financing. He explained that the expected all-in-true interest cost (TIC) for the EIB is comparable to that of a traditional, tax-exempt financing.

Ms. Sara Motsch inquired as to how the success of the project is defined and who is measuring the success. In response, Mr. Hawkins, GM/CEO, stated that the success of the project is solely independent from that of financing of the project and that it is based on the performance level of GI. Mr. Hawkins also stated that DC Water's Clean River's team will monitor the program and will be able to measure and identify if the project is less successful. If the GI pilot captures less volume, then DC Water will have to use alternative methods. Mr. Brown inquired as to who controls the success factors. Mr. Kim replied, the success factors are controlled by the technical team and are monitored by a well-defined evaluation plan as stated in the Clean River's consent decree. The plan also requires a post-project evaluation to determine the efficacy of the program. Mr. Kim added that the structure and financing are very closely aligned to seek and to hedge any risk associated with the project. Mr. Brown asked if there were any other alternative methods of funding. Mr. Kim replied that DC Water can enter into a P3 (Private-Public-Partnership) deal to fund the GI. Mr. Brown then inquired about the advantage of procuring a performance contract as opposed to an Environmental Impact Bond. In response, Mr. Hartman stated that DC Water could have used a performance contract to achieve similar objectives but that the EIB was a novel financing solution in the form of a bond rather than a contract. In response to Mr. Firestine's inquiry, Mr. Kim explained that the Wholesale customers will pay their prorated share of DC Water's capital disbursements and the District rate payers would be responsible for the costs associated with the EIB.

Mr. Firestine then asked Mr. Kim and Mr. Hartman to provide an overview of the various financing scenarios in the presentation. Mr. Kim explained that the three EIB scenarios represented the expected range of initial interest rates that would be negotiated with the potential investor(s). In addition, Mr. Hartman stated that each of the three scenarios presented include figures for total debt service and the present value (PV) of total debt service in the expected case as well as if a contingent payment were due by one party.

Mr. Kim continued that the three traditional, tax-exempt scenarios were chosen to replicate certain aspects of the EIB such as a 5-year call, premium coupon and mandatory put. Mr. Kim noted that the comparisons between the EIB and traditional financing scenarios were not true "apple-to-apple" comparisons because they did not include the contingent feature of the EIB.

Mr. Firestine asked whether one of the traditional scenarios listed showed a lower all-in TIC than the EIB and why DC Water was not recommending that structure. Mr. Kim responded in the affirmative, but noted that there was additional risk associated with that particular scenario that was not associated with the EIB and that it did not achieve the risk transfer that was the primary purpose of the EIB."

### **Adjournment**

Hearing no further business Chairperson Firestine adjourned the meeting at 12:33 pm.

### **Follow-up Items**

1. Provide contributions and withdrawals schedule for the Rate Stabilization Fund.  
**(Chairman Brown)**



**CEO and GENERAL MANAGER'S REPORT**

George S. Hawkins – September 2016

**Table of Contents**

**Message from the CEO/GM** .....I

**Organizational Performance Dashboard** .....i

**Financial Highlights** .....1

    Financial Performance Summary ..... 1

    Revenues and Operating Expenses ..... 2

    Capital Spending..... 2

    Operating Cash and Receivables ..... 3

    Investment Earnings..... 3

    Investment Yield..... 4

**Customer Care and Operations Highlights**.....5

    Customer Service ..... 5

    Fire Hydrants..... 6

    Permit Processing..... 7

**Low Income Assistance Program**.....8

    SPLASH Program..... 8

    Customer Assistance Program(CAP) ..... 8

**Operational Highlights** .....9

    Drinking Water Quality..... 9

    Waste Water Treatment ..... 10

    Water Distribution Operations..... 11

    Water Balance ..... 11

    Sewer System Operations ..... 12

    Combined Sewer System..... 12

    Human Resources ..... 13

    Electricity Usage Summary..... 14

    Electricity Usage by Service Area ..... 14

    Safety ..... 15

    Vendor Payments ..... 15

**Interpretation of Charts** ..... A

**Color Key**

<p><b>Red</b></p> <p><b>Yellow</b></p> <p><b>Green</b></p> <p><b>Gray</b></p> <p><b>&lt;transparent&gt;</b></p>	<p><b>Did not meet Target</b></p> <p><b>Missed Target but within acceptable range</b></p> <p><b>Met/Exceeded Target</b></p> <p><b>Budget/Target Value</b></p> <p><b>Green/Yellow/Red based on comparison</b></p>
---	--

## Message from the CEO/GM

Greetings to the Board and welcome back from a hot and steamy summer. Although our efforts never seem to slow, we know we have to fire on all cylinders this fall.

### **Blue Drop**

We look forward to continuing our presentation to the Governance Committee in September on the formation of a non-profit subsidiary of DC Water that has the sole purpose of generating revenue to defray ratepayer costs. Our plan is to present a copy of the incorporation documents (DC Water will be the only member of the non-profit and will direct its activities through me) and seek Board approval of the incorporation in October. We are engaged in a tremendous level of activity on Blue Drop, which is the arm of the enterprise that will sell the Bloom soil product, and offer lab and technical services to other utilities. Not only do we seek to generate non-ratepayer revenue, and to generate a return on what our ratepayers have already invested in us, but we also hope to help our compatriots in the water utility industry offer better and essential services to their customers.

### **NIAC**

After a lengthy vetting process with the White House Personnel Office, I am honored to report that President Obama has signaled his intention to appoint me to the National Infrastructure Advisory Council. The NIAC provides the administration advice on the security and resiliency of infrastructure through the Secretary of the Department of Homeland Security. I am the first and only member of NIAC that is from a public water utility, which from my perspective is a critical voice that is needed on discussions of these issues. I am excited to serve and will report to the Board on the key issues that we tackle on the NIAC. I will need to gain a secret security clearance, so there is more vetting and reviews to come!

### **Human Capital Management and Procurement Reorganizations**

An annual survey of global workforce trends by the management consulting firm Deloitte found organizational design to be the number one priority faced by employers in 2016. While, I feel tremendously confident in the talent we have assembled to lead our enterprise, the rate of change and innovation in our industry demands we continuously assess where we are and seek ways to improve.

As an independent instrumentality of the District government we are a unique organization. At our core we are public sector. However, the purpose of our creation was to establish an organization that would be more agile and innovative than a traditional government agency. We are now in the process of transitioning from a traditional municipal form of organizational structure to a more functionally streamlined corporate structure under a Chief Executive Officer (CEO).

This year we began a process to measure the business unit maturity of the Authority's operational departments. The Departments of Human Capital Management (HCM) and Information Technology (IT) were the first group to be assessed. The maturity model process resulted in some exciting plans that will guide our continued investment and development of Team Blue.

## Message from the CEO/GM

These efforts also offered an opportunity to take a deeper look at the Authority's organizational design. As a result, we identified several ways the Authority can improve our performance, leverage our existing leadership and better serve our operational departments for future initiatives. With these goals in mind, the Authority will make the following organizational changes:

- Human Capital Management (HCM) and the Labor Relations Branch will be merged into a single department.
  - HCM will be realigned into three business units: 1) Operations; 2) Talent; and 3) Labor Relations.
  - The Manager of Labor Relations will report to the Director of HCM.
  - The Director of HCM will report to the Chief of Staff
- Procurement functions for goods, services and capital will be consolidated into a single department.
  - The Procurement Director will report to the Chief Procurement Office.
- Core Support Services
  - Facilities, Fleet, Security, Operational Safety and Health will remain under the Assistant General Manager, Support Services.

These changes will take effect on September 1, 2016.

### **External Affairs**

*Website:* Session totals for the period of July 16 through August 15, 2015  
Total Sessions: 80,352  
New Sessions: 44,595

### *Government Relations*

DC Water coordinated with the Office of Mayor Bowser to draft a Fiscal Year 2018 federal payment request for White House consideration. The potential payment is for the Clean Rivers Project, which has benefitted from approximately \$225 million of federal funding to date. The White House will likely not determine the amount to be included in the President's Fiscal Year 2018 budget request until after the elections in November.

### *Media Relations*

OEA worked with GOVERNING's photographer David Kidd to photograph a lead service line replacement. The photos are to be used in a national story about replacing lead service lines and have all been given to DC Water for our use in materials as well.

### *Media Coverage:*

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

- [D.C. Council Seeks to Strengthen Lead Testing in Public Facilities](#) (Washington City Paper / July 13, 2016)

## Message from the CEO/GM

- [DC Water And The Water Environment Federation Launch National Green Infrastructure Certification Program Website](#) (Water Online / July 19, 2016)  
[DC offers cool resources for residents, visitors facing historic heat wave](#) (WTOP / July 22, 2016)
- [Mapping lead service lines: DC Water offers a model for utilities across the nation](#) (EDF / July 25, 2016)
- [SmithGroupJJR and Skanska Announce Design-build Project for New DC Water Headquarters](#) (PR Web / August 4, 2016)
- [The Chris Traeger List: Top 100 Local Government Influencers](#) (ELGL / August 4, 2016)
- [President Obama Announces More Key Administration Posts](#) (The White House / August 5, 2016)

### *Meetings/Presentations/Events*

- DC Water provided its Misting Tent, Cooling Station, Water Drop Mascot, information and giveaways for MPD's "Beat the Streets" event which took place in the 1700 Block of F Street NE, in the heart of the Rosedale neighborhood.
- DC Water hosted its July First Street Tunnel Project forum. During this regular meeting, updates on this project and an upcoming Bloomingdale area Small Diameter Water Main Replacement Project were all provided in a detailed presentation.
- As part of its Environmental Education program, DC Water participated in a series of Summer Boot Camp Workshops throughout the city. The final event in this year's series was a Water Pollution Workshop held at Burrville Elementary School.
- Using its Cooling Station, Water Drop Mascot, information and giveaways, DC Water supported the 6<sup>th</sup> District Metropolitan Police Department for its annual "National Night Out" event.
- DC Water provided its Misting Tent, Cooling Station, Water Drop Mascot, information and giveaways for MPD's "Beat The Streets" event which took place in the 1200 Block of I Street SE, in the heart of the Capitol Hill area.
- As part of its ongoing partnership with the Washington Nationals, DC Water provided its Misting Tent, Quench Buggy, Cooling Station, Water Drop Mascot, water bottles, activity books, key chains and lanyards during the Nationals' Youth Baseball Academy-End of Summer Academy Games.
- Each year, DC Water supports a large number of Back to School events hosted by agencies and organizations across the District. The first in this year's events was a Back to School/Informational event sponsored by Israel Baptist Church. In support of this event, DC Water provided its Water Drop Mascot, Misting Tent, Cooling Station, information and giveaways.
- The second Back to School event was MPD's annual "Supplies Give-A-Way" event, which also serves as the official closeout event for MPD's "Beat the Streets" Event Series. In support of this event, DC Water provided its Misting Tent, Cooling Station, Water Drop Mascot, information and giveaways.



## Message from the CEO/GM

- The third Back to School event was held on the grounds of DC General and co-sponsored by At-Large Councilmember Alyssa Silverman, Ward 7 Councilmember Yvette Alexander and the DC Department of Human Services. In support of this event, DC Water provided its Misting Tent, Cooling Station, Water Drop Mascot, information and giveaways.

### *Drinking Water Marketing and Communications*

- External Affairs promoted TapIt and tap water safety at the Washington Nationals Youth Academy Event.
- External Affairs attended the Alternative Water Supply Workshop at MWCOG with regional emergency management and water utilities.
- External Affairs continues to participate with the interdepartmental lead strategy group to consolidate DC Water's lead information and strategize about lead service line removals.
- External Affairs attended the Community Engagement Campaign meeting with other regional partners at MWCOG to finalize the annual work program and budget and discuss further advertisement and expansion of the Protect your Pipes campaign.

### *Customer Newsletter*

The August bill insert included a cover story on the St. Elizabeths water tower, and included a primer on how water towers work, with a terrific graphic to explain it. The GM's message included a thanks to all who contributed to the Bailey Bioenergy Facility, which was selected for the US Water Prize. It also included two stories on premise drinking water quality – draining a hot water heater and a number of tips to help ensure clean, fresh water. Finally, it included an article on ways to keep local waterways healthy and free of contaminants.

### *Tours*

- 80 educators from the NEED project
- 50 youth interns from the DOEE Summer Youth Program
- 25 new employees
- 3 representatives from the York Region
- 23 educators from the Chesapeake Bay Foundation
- 4 councilmembers from the city of Parana, Argentina
- 20 Human Resource Interns from DCHR

## Message from the CEO/GM

### *Social Media*

<b>Twitter</b>	7/16 - 8/15	Fiscal Year to date total 7/16 – 8/15
New Followers	245	3,931
Total Followers	13,458	13,458
Mentions	416	7,411
Retweets	165	4,146
Likes	352	6,169
<b>Facebook</b>		
New Fans	49	2,294
Total Fans	2,294	2,294
Impressions	32,171	740,759
Users	18,381	359,958
Engagements	349	5,110
<b>Instagram</b>		
New Followers	60	399
Followers	739	739
Likes	286	2,985
Comments	15	127

## ORGANIZATIONAL PERFORMANCE DASHBOARD (JULY, 2016)

### Financial Highlights

<b>Net Operating Cash</b> Actual <b>96764</b> Target <b>62460</b> (\$ tho)	<b>Operating Revenues</b> Actual <b>483</b> Target <b>484</b> (\$ mil)	<b>Operating Expenses</b> Actual <b>383</b> Target <b>451</b> (\$ mil)	<b>Capital Disbursements</b> Actual <b>463</b> Target <b>471</b> (\$ mil)
<b>Operating Cash Balance</b> Actual <b>159</b> Target <b>126</b> (\$ mil)	<b>Delinquent Account Receivables</b> Actual <b>2</b> Target <b>3</b> (%)	<b>Core Investments Yield</b> Actual <b>1.12</b> Target <b>0.67</b> (%)	<b>Short Term Investment Yield</b> Actual <b>0.66</b> Target <b>0.22</b> (%)

### Customer Care and Operations Highlights

<b>Call Center Performance</b> Jul <b>83</b> 85 (% of calls rec)	<b>Command Center Performance</b> Jul <b>90</b> 85 (% of calls rec)	<b>First Call Resolution</b> Jul <b>85</b> 75 (% of calls rec)	<b>Emergency Response Time</b> Jul <b>94</b> 90 (% of calls rec)
<b>Fire Hydrants out of Service</b> Jul <b>28</b> 96 (count)	<b>Fire Hydrant Insps. and Maint.</b> <b>610</b> (count)	<b>Fire Hydrants Replaced</b> Jul <b>85</b> 250 (YTD count)	<b>Permit Processing within SLA</b> <b>85</b> (%)

### Low Income Assistance Program

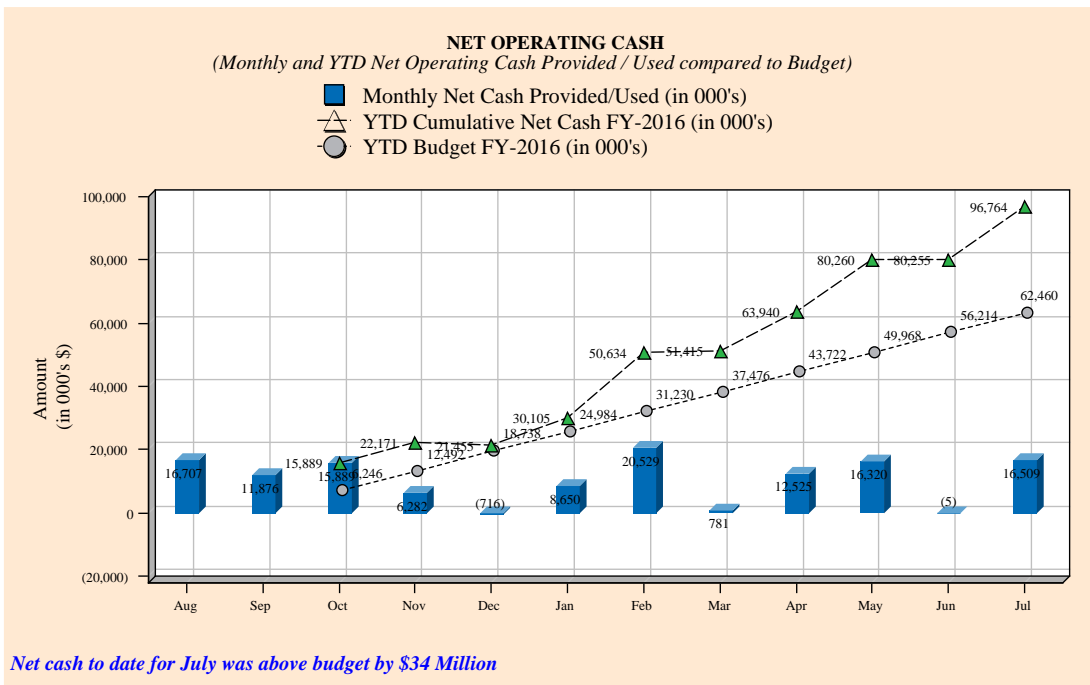
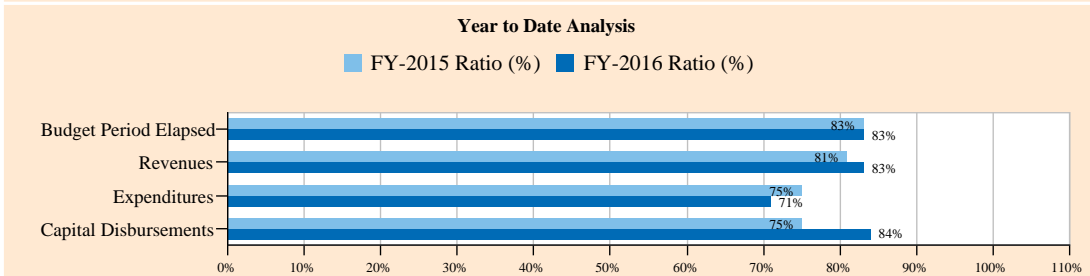
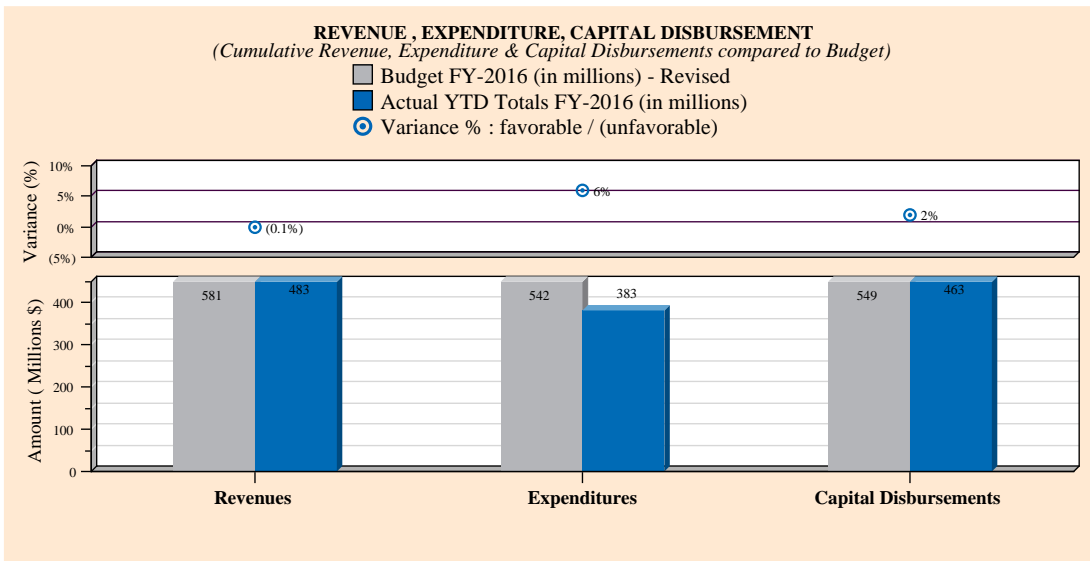
<b>Splash Contributions</b> Actual <b>84</b> Target <b>67</b> (\$ tho)	<b>Customer Assistance Program</b> Previous <b>148</b> Current <b>87</b> (\$ tho)
---	--

### Operational Highlights

<b>Lead Concentration</b> (ppb)	<b>Total Coliform Rule</b> (%)	<b>Biosolids Production</b> <b>409</b> (wet tons)	<b>Total Nitrogen</b> (lbs/yr mil)
<b>Plant Effluent Flow</b> (gal mil)	<b>Excess Flow</b> <b>5</b> (gal mil)	<b>Water Main Leaks</b> <b>35</b> (count)	<b>Water Valve Leaks</b> <b>1</b> (count)
<b>Non-Revenue Water</b> Sold <b>8</b> Purchased <b>12</b> (CCF mil)	<b>Sewer Main Backups</b> <b>6</b> (count)	<b>Sewer Lateral Backups</b> <b>173</b> (count)	<b>Dry Weather CSO</b> <b>0</b> (events)
<b>Recruitment Activity</b> Filled <b>7</b> Open <b>110</b> (count)	<b>Electricity Usage</b> <b>17769</b> (MWh)	<b>Employee Lost Time Accidents</b> <b>2</b> (count)	<b>Vendor Payments</b> Actual <b>97</b> Target <b>97</b> (%)

**FINANCIAL HIGHLIGHTS**

**FINANCIAL PERFORMANCE SUMMARY**



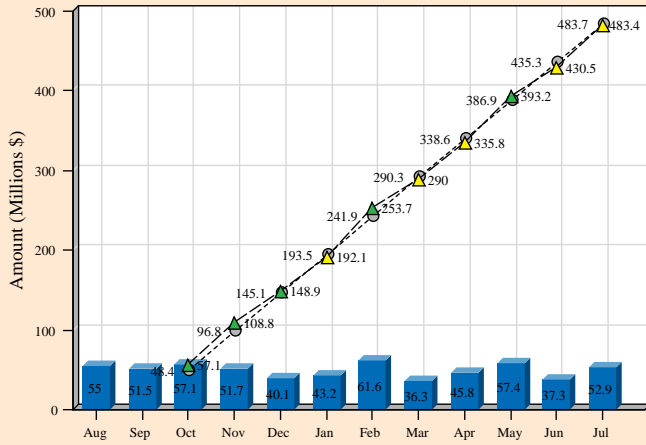
**FINANCIAL HIGHLIGHTS**

**REVENUES AND OPERATING EXPENSES**

**OPERATING REVENUES**

Monthly & Cumulative Revenue compared to YTD Budget

- Actual Monthly Revenue
- △ YTD Cumulative Revenue FY-2016
- YTD Cumulative Budget FY-2016

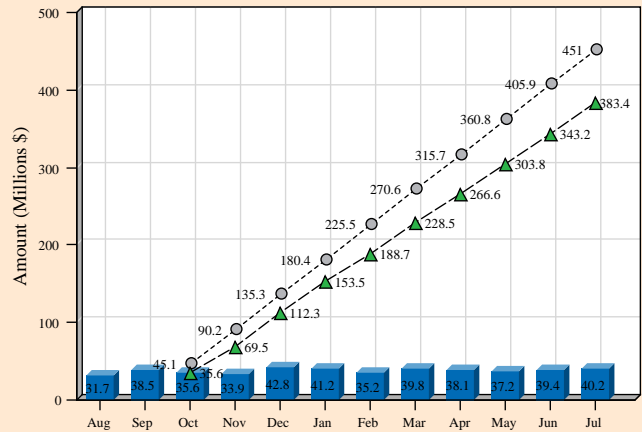


Revenue to date for July was at per with budget

**OPERATING EXPENSES**

Monthly & Cumulative Expenditure compared to YTD Budget

- Actual Monthly Expenses
- △ YTD Cumulative Expenditure FY-2016
- YTD Cumulative Budget FY-2016



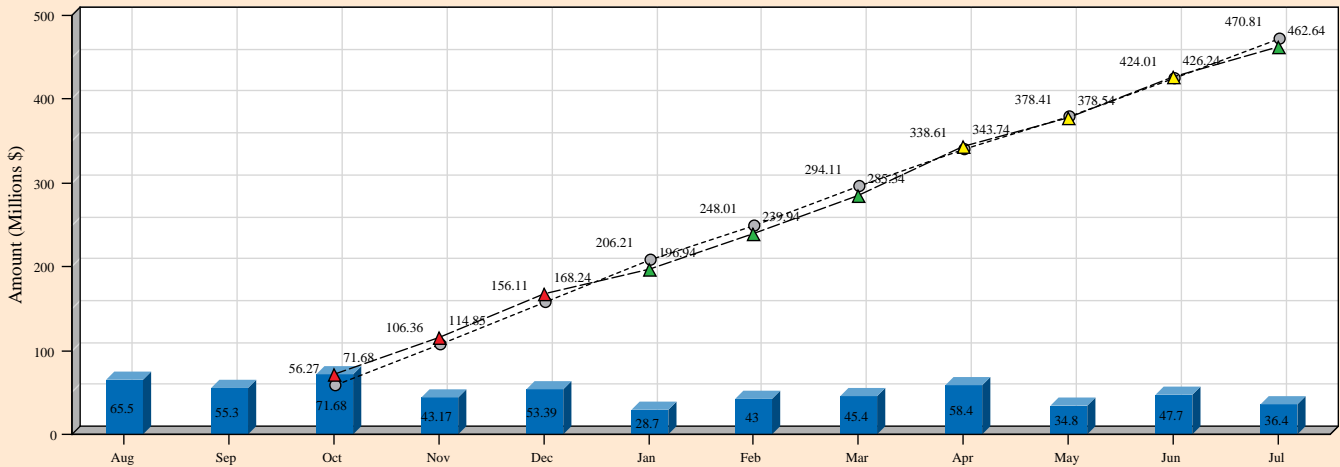
Expenditure to date for July was below budget by \$68 Million

**CAPITAL SPENDING**

**CAPITAL DISBURSEMENTS**

Monthly & Cumulative Disbursements compared to YTD Budget

- Actual Monthly Disbursements
- △ YTD Cumulative Disbursements FY-2016
- YTD Cumulative Budget FY-2016



Disbursements to date for July were below budget by \$8 Million

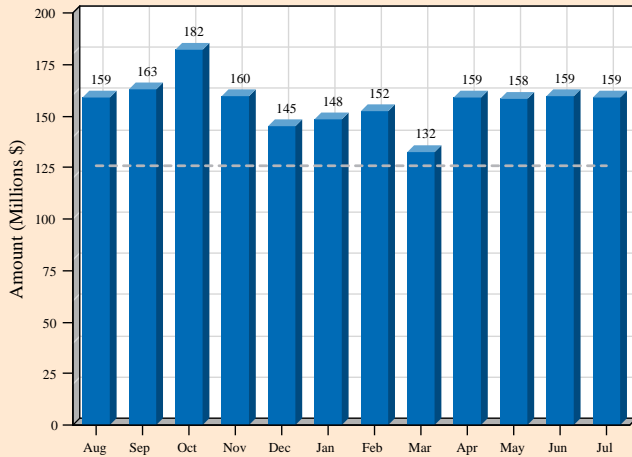
**FINANCIAL HIGHLIGHTS**

**OPERATING CASH AND RECEIVABLES**

**OPERATING CASH BALANCE**

Average Daily Cash Balance compared to Operating Reserve Target

- Actual Cash Balance FY-2016
- - - Operating Reserve Target - (126 Million)

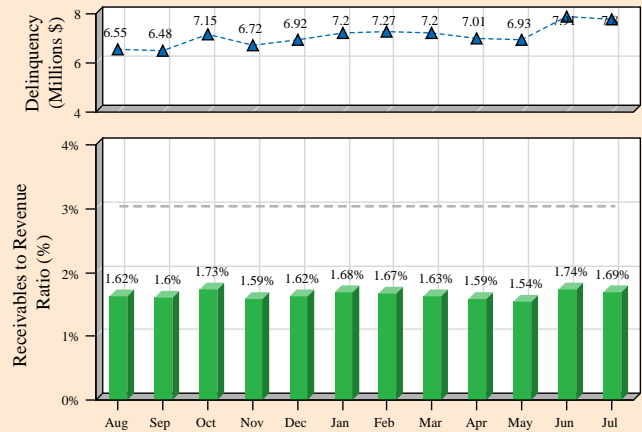


Cash Balance for July was above target by \$33 million

**DELINQUENT ACCOUNT RECEIVABLES**

Delinquency & Receivables to Revenue Ratio compared to Target

- Receivables to Revenue Ratio
- ▲ Delinquencies FY-2016 (in millions)
- - - Target: Receivables to Revenue Ratio (3%)



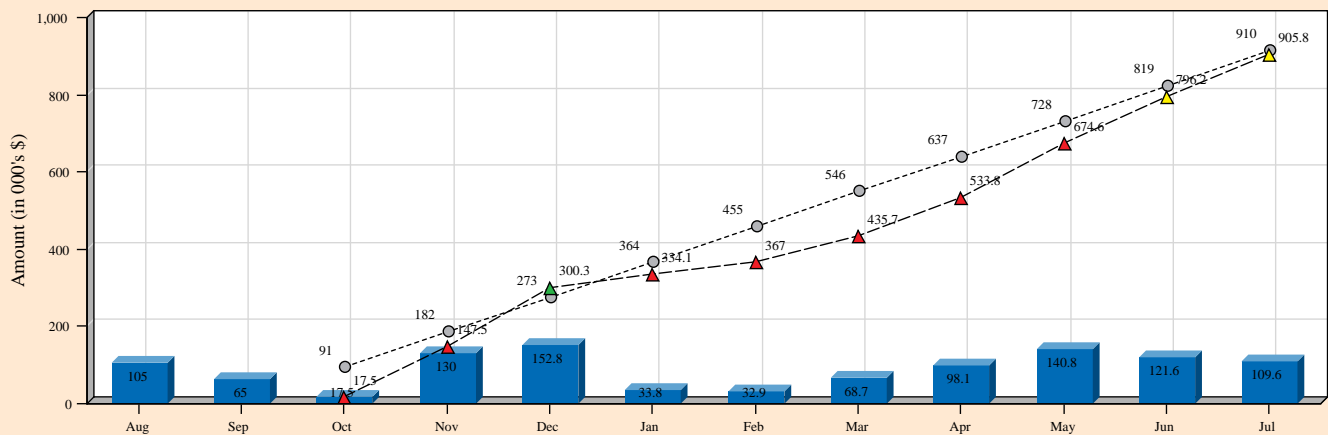
July Receivables to Revenue Ratio 1.7%, Delinquency \$7.8 Million

**INVESTMENT EARNINGS**

**INVESTMENT CASH EARNINGS**

Monthly & Cumulative Earnings compared to YTD Budget

- Monthly Earnings (in 000's)
- ▲ YTD Cumulative Earnings FY-2016 (in 000's)
- YTD Cumulative Earnings Budget FY-2016 (in 000's)



Earnings to date for July were below Projected Budget by \$4,000

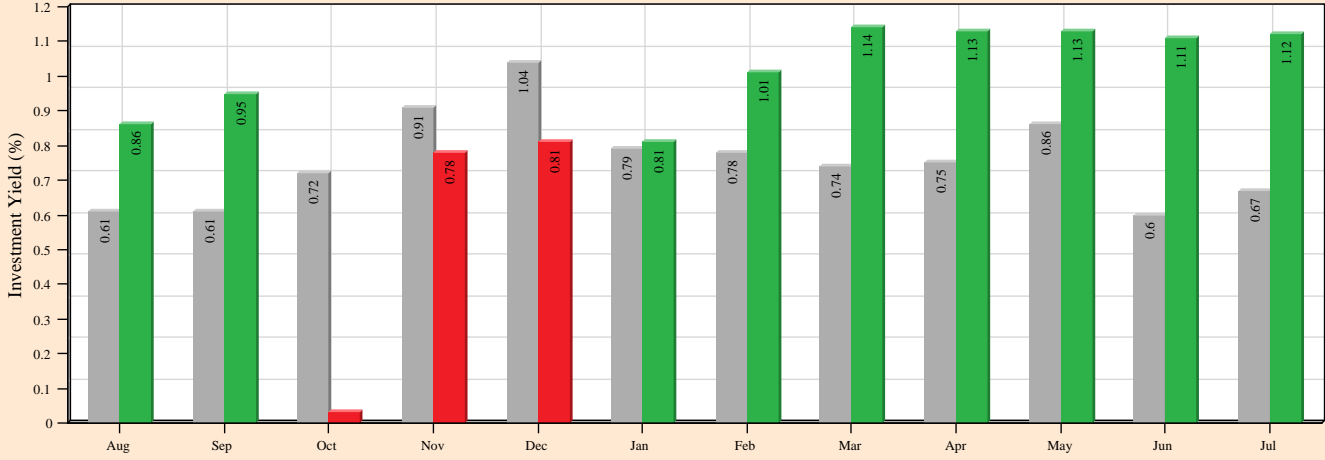
**FINANCIAL HIGHLIGHTS**

**INVESTMENT YIELD**

**CORE INVESTMENTS YIELD**

Monthly Yield compared to Merrill Lynch Benchmark

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

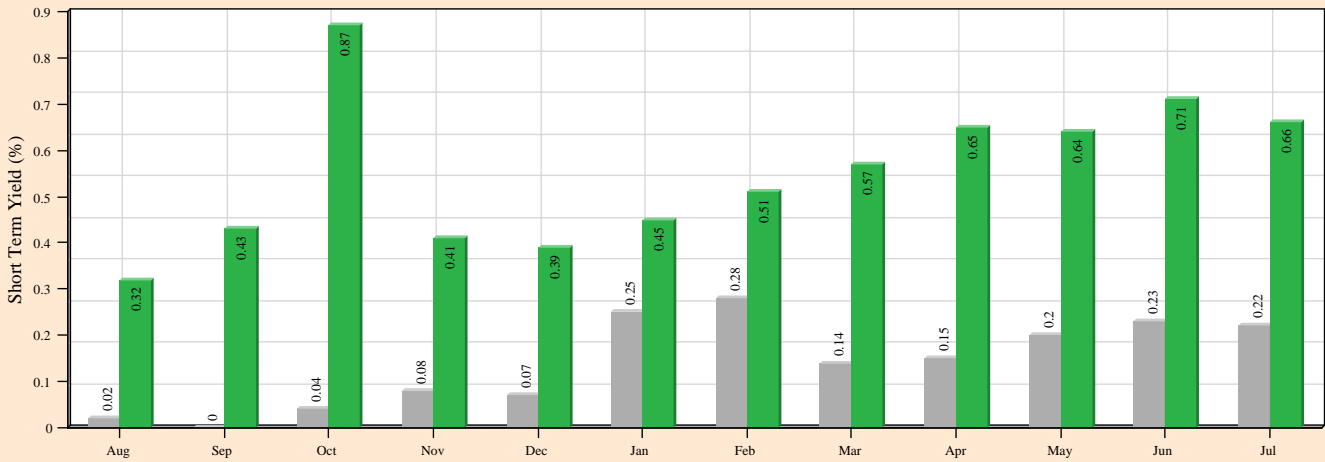


Yield for July was higher than the treasury index by 0.45%

**SHORT TERM INVESTMENT YIELD**

Short Term Yield compared to Merrill Lynch Benchmark

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



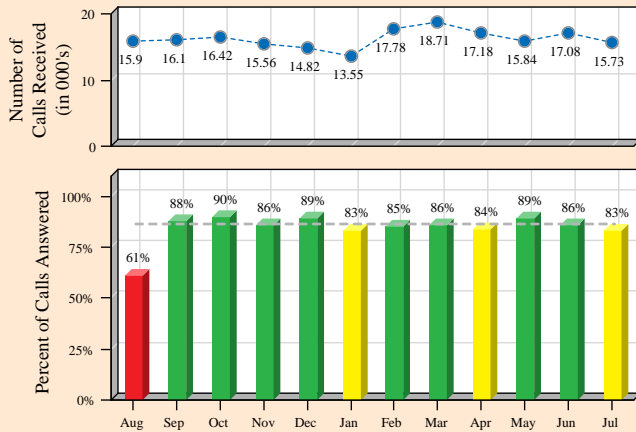
Short Term Yield for July was higher than the Merill Lynch yield by 0.44%

**CUSTOMER CARE AND OPERATIONS HIGHLIGHTS**

**CUSTOMER SERVICE**

**CALL CENTER PERFORMANCE**  
Calls Answered within 40 Seconds compared to Target

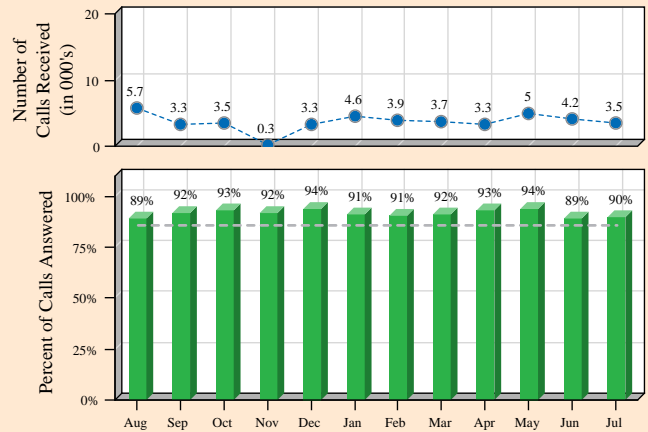
- Call Center: Calls answered (%)
- No of Calls - Call Center (in 000's)
- Target -Call Center (85%)



Performance for July was below target by 2%

**COMMAND CENTER PERFORMANCE**  
Calls Answered within 40 Seconds compared to Target

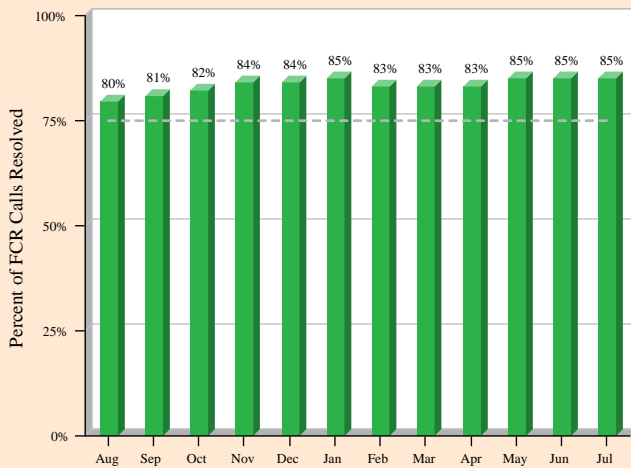
- Command Center: Calls answered (%)
- No of Calls - Command Center (in 000's)
- Target -Command Center (85%)



Performance for July was above target by 5%

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

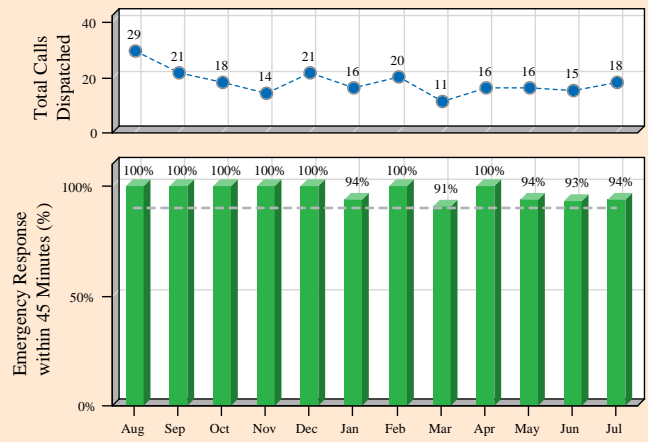
- FCR (%)
- FCR Target (75%)



Performance for July was above target by 10%

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

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



Performance for July was above target by 4%

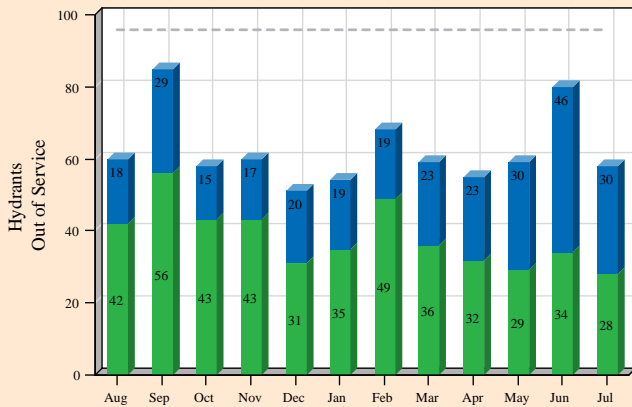


**CUSTOMER CARE AND OPERATIONS HIGHLIGHTS**

**FIRE HYDRANTS**

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

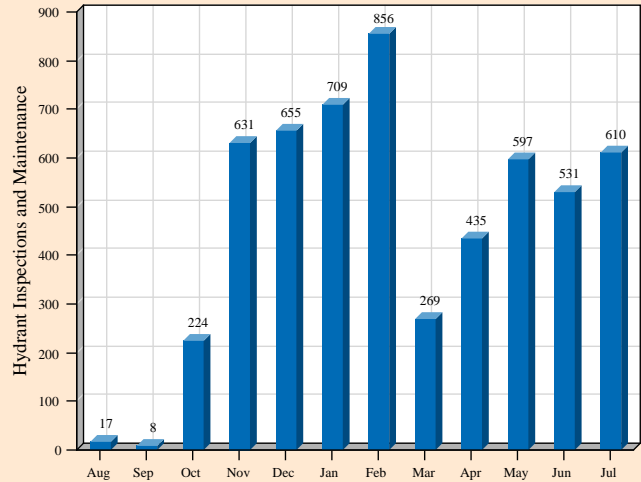
- Out of Service Fire Hydrants (Defective OOS Hydrants)
- In-Operational - OOS Due to Inaccessibility or Temporary Work
- Out of Service Hydrants Target (96)



**Fire Hydrant Inspections and Maintenance**

Total Hydrant Inspection and Maintenance Work Orders Completed per Month

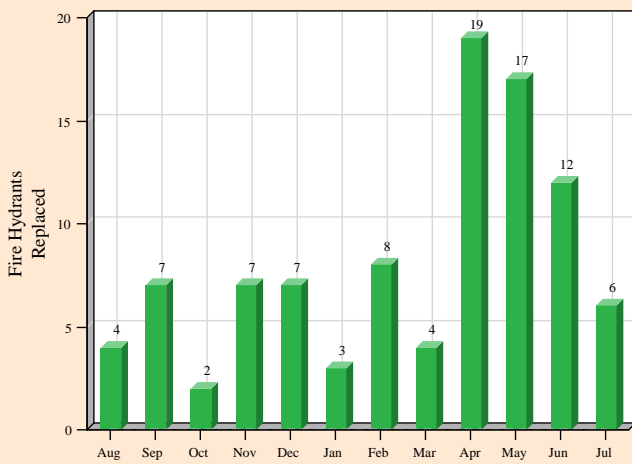
- Hydrant Inspections and Maintenance



**FIRE HYDRANT REPLACEMENTS**

Total Hydrants Replaced per Month

- Hydrants Replaced
- Annual Replacement Target (250)

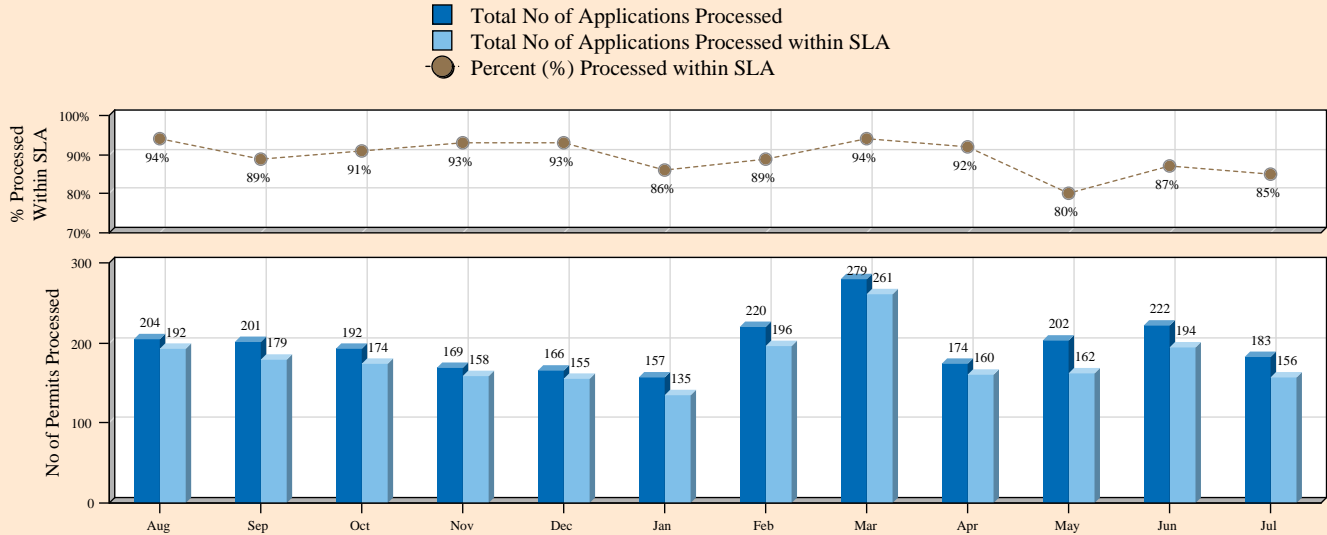


Total replacements as of July were 85 against annual projections of 250

**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 July were 15% Note that different SLA's range from 7 days to 45 days*

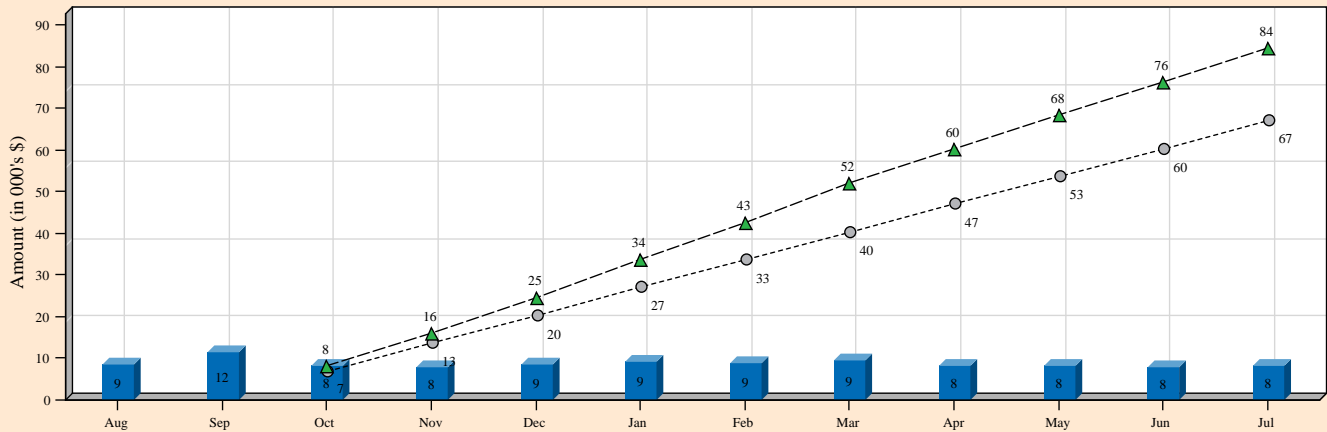
**LOW INCOME ASSISTANCE PROGRAM**

**SPLASH PROGRAM**

**SPLASH CONTRIBUTIONS**

Monthly and Cumulative Contributions compared to YTD Target

- Monthly Contributions (in 000's)
- △ YTD Cumulative Contributions FY-2016 (in 000's)
- Projected YTD Target FY-2016 (in 000's)



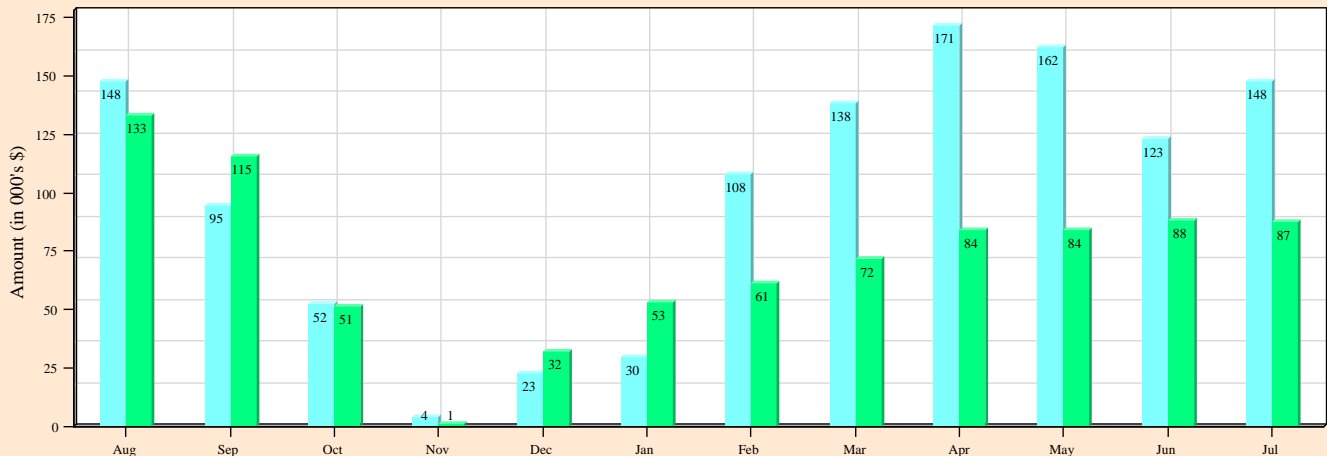
Total SPLASH Contributions to date for July were above target by \$17,000

**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)

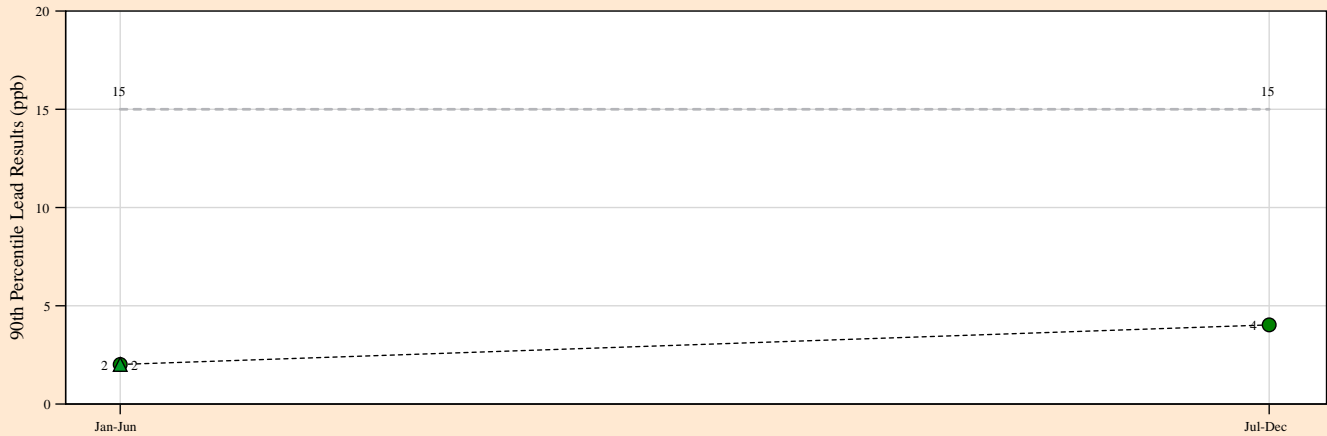


**OPERATIONAL HIGHLIGHTS**

**DRINKING WATER QUALITY**

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

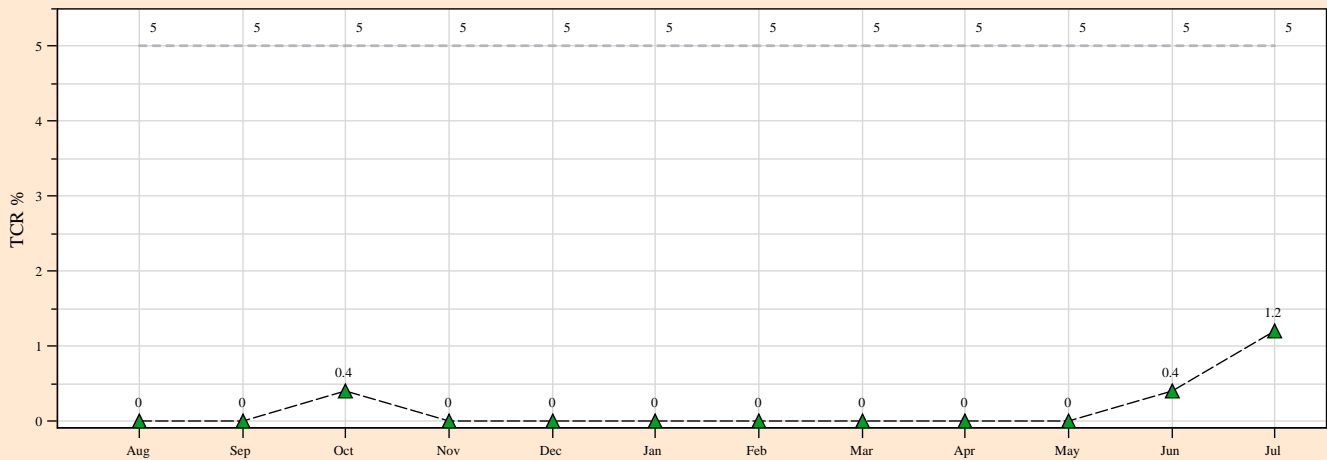
- 2015 LCR Results
- △ 2016 LCR Results
- Action Level : 15 parts per billion (ppb)



*Jan-Jun 2016 results to date*

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

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



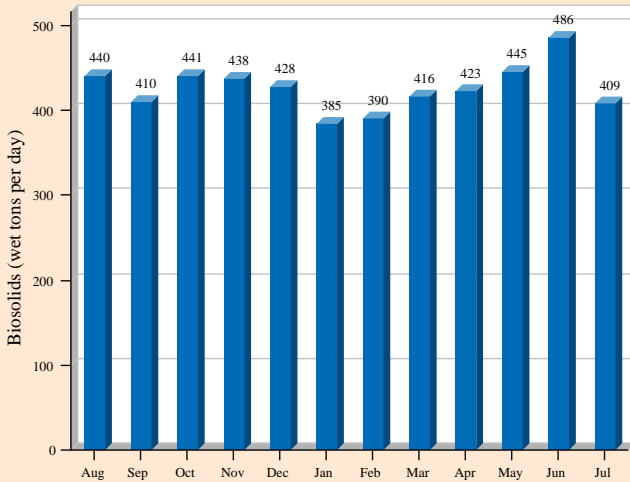
*Coliform Positives were recorded in July at 1.2%*

**OPERATIONAL HIGHLIGHTS**

**WASTEWATER TREATMENT**

**BIOSOLIDS PRODUCTION**  
Average Daily Biosolids Production

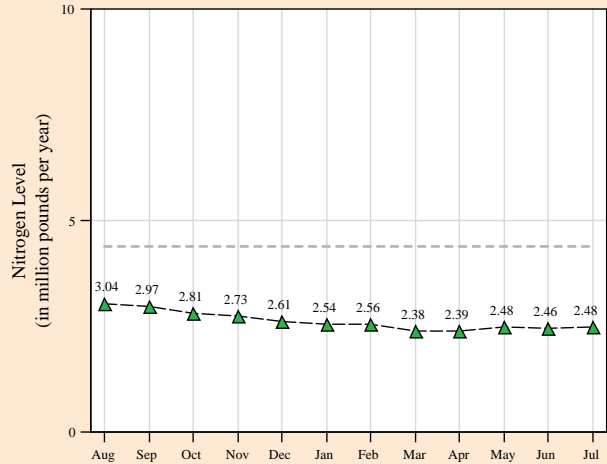
■ Average Daily Biosolids Hauled



*Biosolids Average Daily Production for July was 409 wet tons per day*

**TOTAL NITROGEN**  
Total Nitrogen compared to New Permit Levels

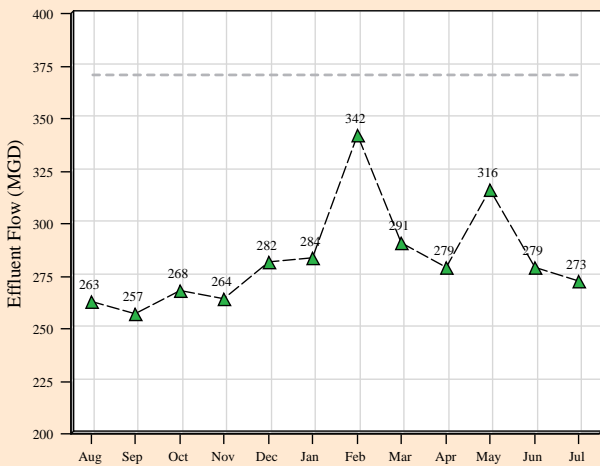
△ Nitrogen Annually Load (lbs/yr)  
--- New Permit Limit - 4.38 Million (lbs/yr)



*Nitrogen level for July was below permit by 1.9 million lbs/yr*

**PLANT EFFLUENT FLOW**  
Effluent Flow compared to Plant Design Average Limit

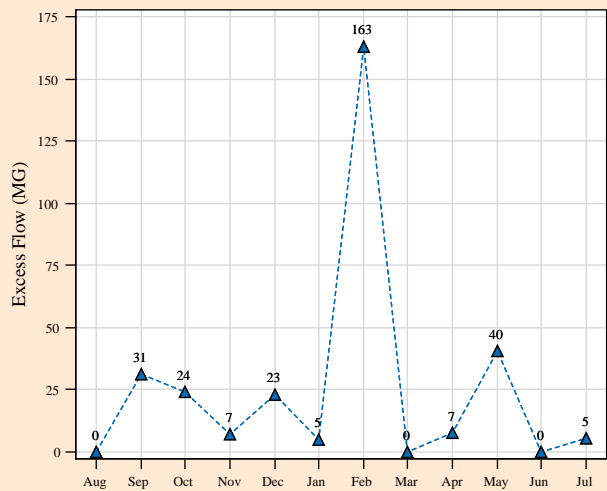
△ Effluent Flow  
--- Design Average (370 mgd)



*In July, Effluent flow was below design by 97 MGD*

**EXCESS FLOW**

△ Excess Flow

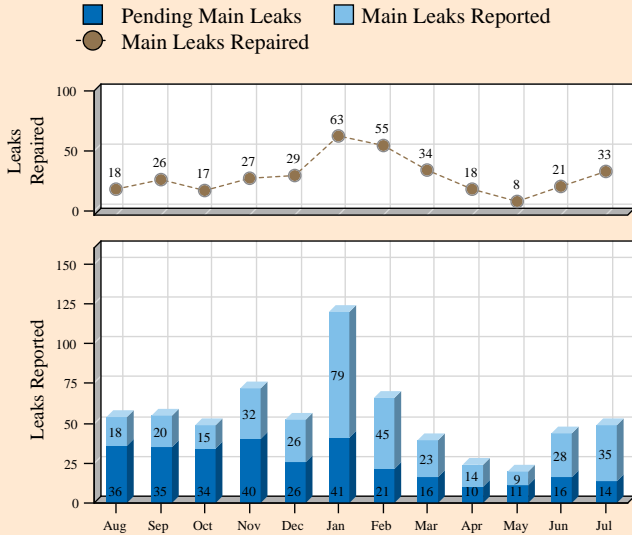


*5 Million Gallons per day excess flow was recorded in July 2016*

**OPERATIONAL HIGHLIGHTS**

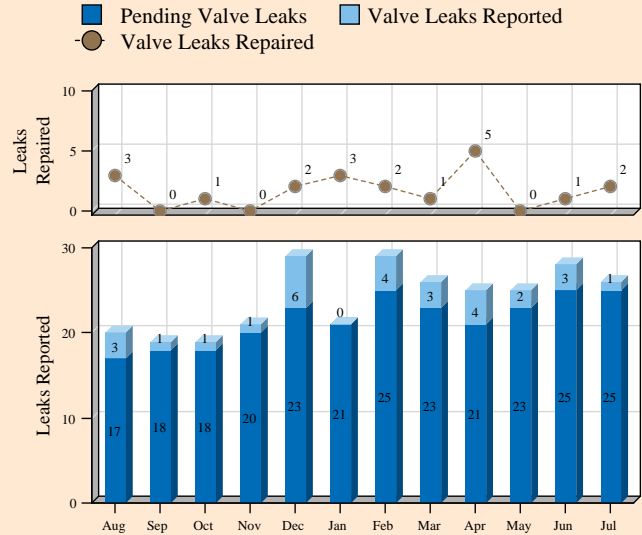
**WATER DISTRIBUTION OPERATIONS**

**WATER MAIN LEAKS**



There were 35 main leaks reported in July

**WATER VALVE LEAKS**



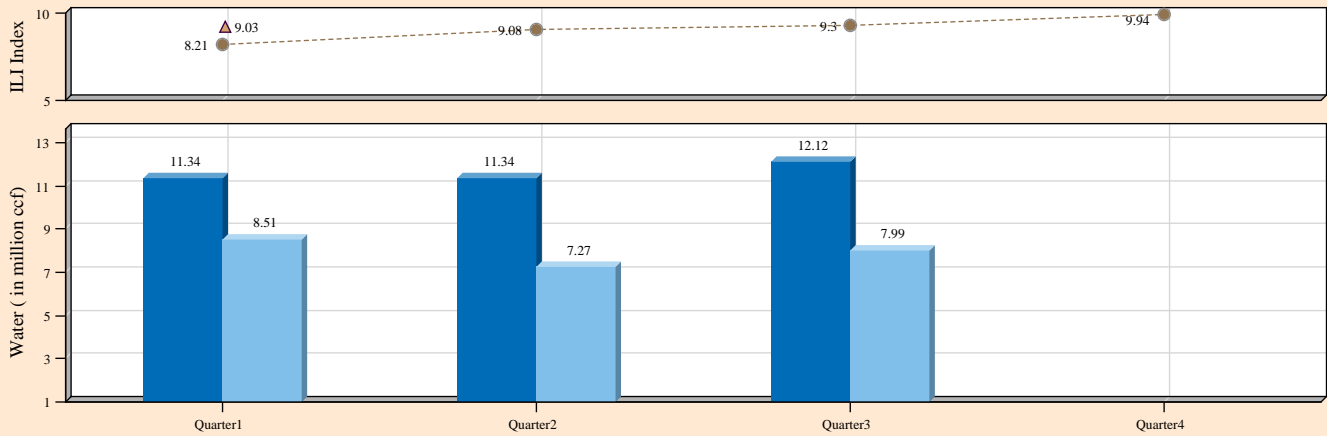
2 leaks were resolved in July

**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 3rd quarter 8 out of 12.1 million cubic feet of water was sold

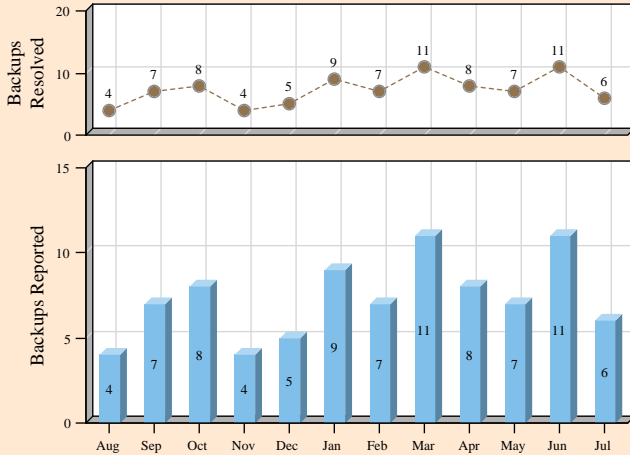
**OPERATIONAL HIGHLIGHTS**

**SEWER SYSTEM OPERATIONS**

**SEWER MAIN BACKUPS**

*Sewer Mains Backed Up and Relieved per Month*

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

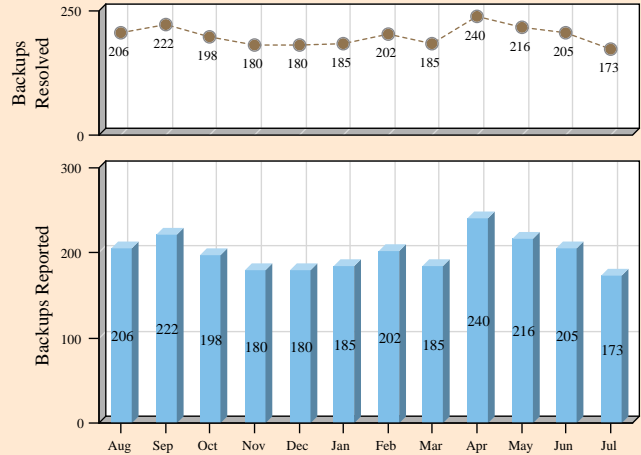


*No pending main backups reported*

**SEWER LATERAL BACKUPS**

*Sewer Laterals Backed Up and Relieved per Month*

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



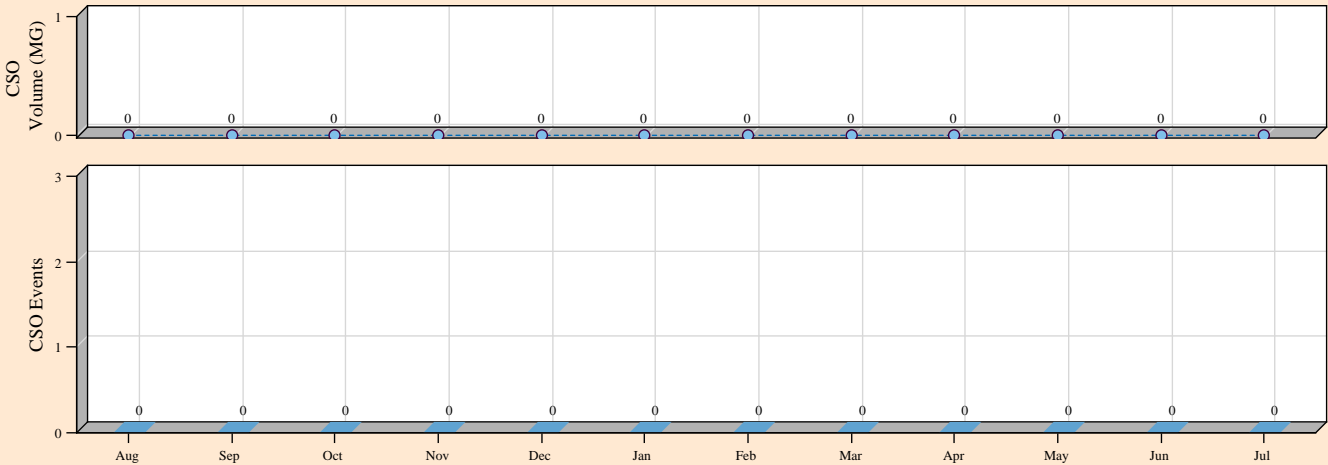
*No pending lateral backups reported*

**COMBINED SEWER SYSTEM**

**DRY WEATHER CSO EVENTS**

*Combined Sewer Overflow Volume and No of Events per Month*

- Number of CSO Events
- Overflow Volume (MG)



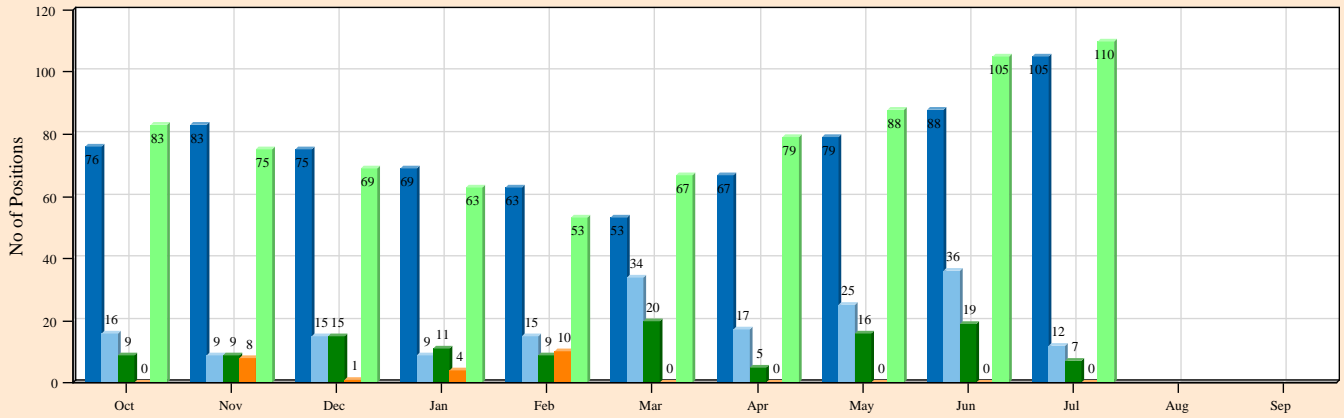
*No dry weather Combined Sewer Overflow event was recorded in July 2016*

**OPERATIONAL HIGHLIGHTS**

**HUMAN RESOURCES**

**RECRUITMENT ACTIVITY**

- FY-2016:Rollover Open Positions
- FY-2016:New Positions Added
- FY-2016:Positions Filled
- FY-2016:Positions Canceled
- FY-2016:Net Remaining Open Positions



*In July, we began the month with 105 positions, received 12 new positions, filled 7, No cancellations and ended the month with 110 positions*

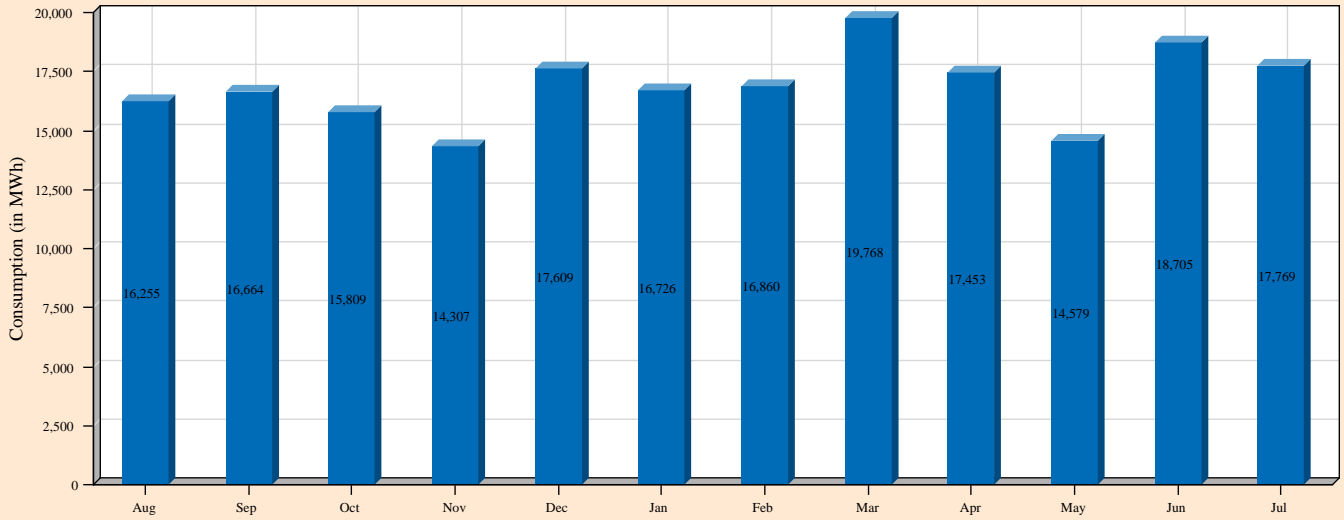


**OPERATIONAL HIGHLIGHTS**

**ENERGY**

**ELECTRICITY USAGE SUMMARY**

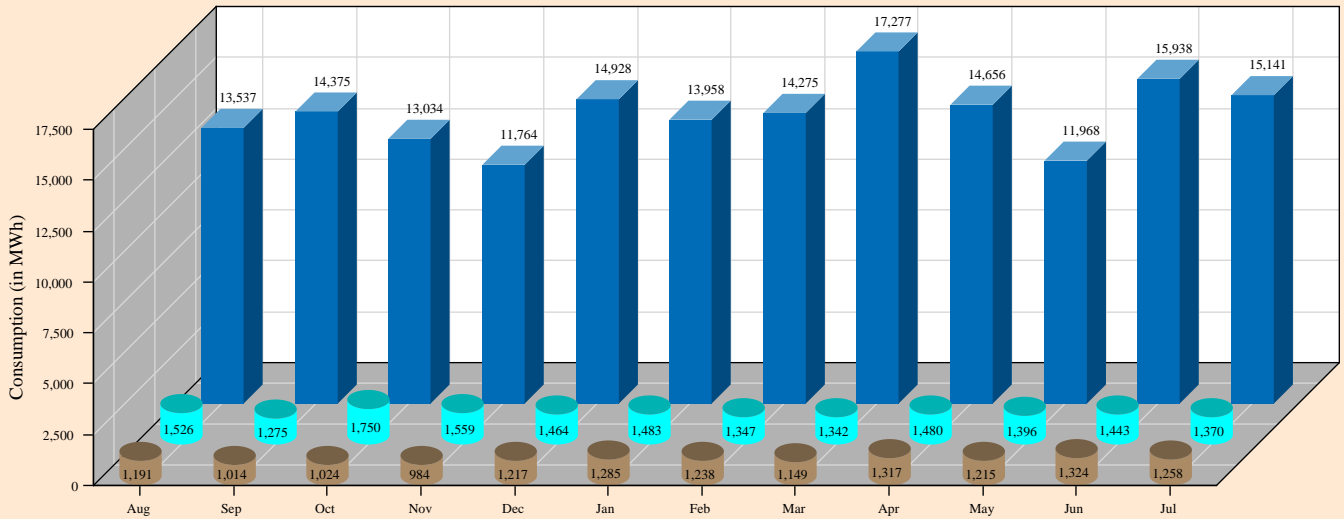
■ Total Consumption (MWh)



*Electricity Consumption in July was 17,769 MWh*

**ELECTRICITY USAGE BY SERVICE AREA**

■ Sewer Pumping ■ Water Pumping ■ Waste Water Treatment



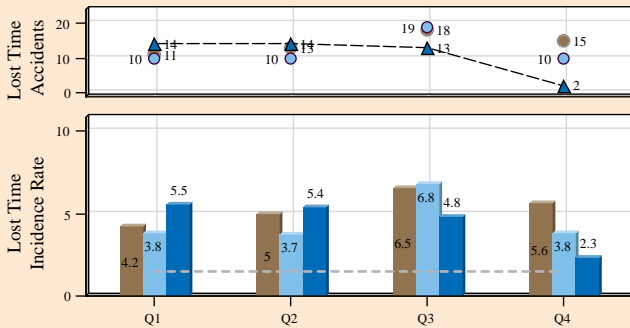
*Wastewater treatment had the highest electricity consumption in July at 15,141 MWh*

**OPERATIONAL HIGHLIGHTS**

**SAFETY**

**EMPLOYEE LOST TIME INCIDENCE RATE**

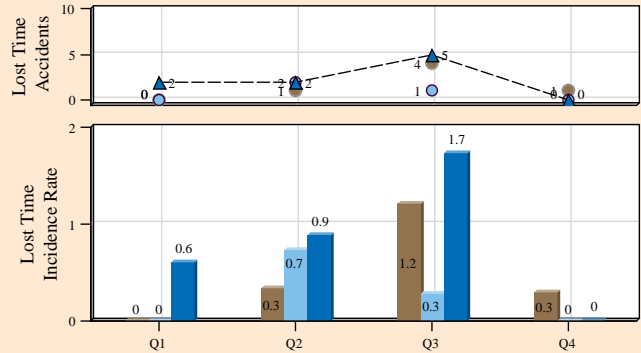
- FY-2014: LT Incidence Rate
- FY-2015: LT Incidence Rate
- FY-2016: LT Incidence Rate
- FY-2014: No of LT Accidents
- FY-2015: No of LT Accidents
- ▲ FY-2016: No of LT Accidents
- Target/National: LT Incidence Rate



*In the 1st Month of 4th quarter, 2 lost time accidents were reported*

**CONTRACTOR LOST TIME INCIDENCE RATE**

- FY-2014: LT Incidence Rate
- FY-2015: LT Incidence Rate
- FY-2016: LT Incidence Rate
- FY-2014: No of LT Accidents
- FY-2015: No of LT Accidents
- ▲ FY-2016: No of LT Accidents

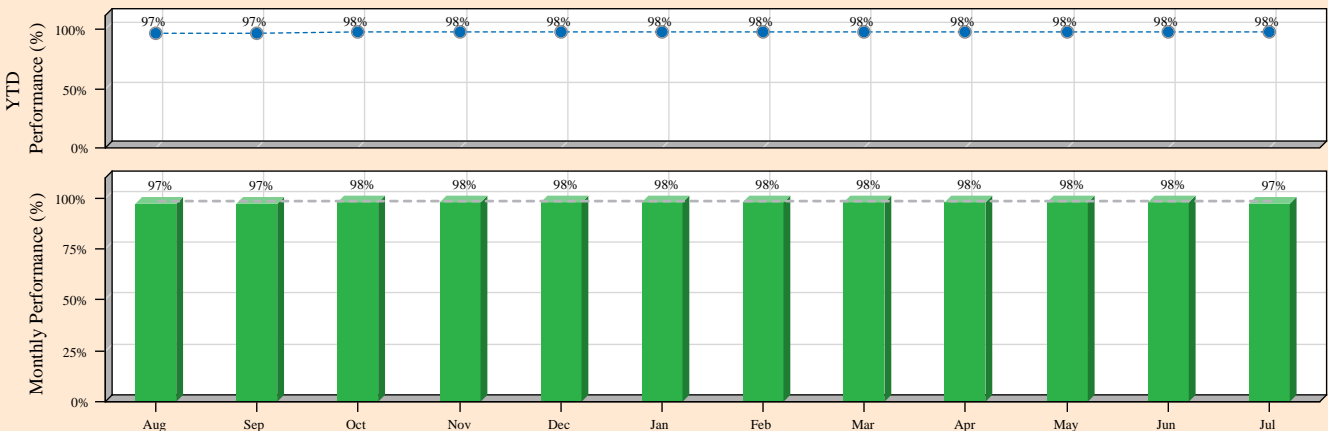


*In the 1st Month of 4th quarter, No lost time accidents were reported*

**VENDOR PAYMENTS**

**VENDOR PAYMENT PERFORMANCE**  
Percentage of Invoices Paid within 30 days

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



*Monthly performance for July was at par with target*

**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><b>Red</b> - when the actual is <b>lower</b> than 3% of budget or target</p> <p><b>Yellow</b> - when the actual is <b>within</b> 3% of budget or target</p> <p><b>Green</b> - when the actual is <b>equal to or higher</b> than budget or target</p>	<p><b>Red</b> - when the actual is <b>higher</b> than 3% of budget or target</p> <p><b>Yellow</b> - when the actual is <b>within</b> 3% of budget or target</p> <p><b>Green</b> - when the actual is <b>equal to or lower</b> 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 <b>lower</b> than 5% of budget or target Yellow- when the actual is <b>within</b> 5% of budget or target Green- when the actual is <b>equal to or higher</b> than budget or target	Red- when the actual is <b>higher</b> than 5% of budget or target Yellow- when the actual is <b>within</b> 5% of budget or target Green- when the actual is <b>equal to or lower</b> 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 <b>lower</b> than 5% of budget or target Yellow- when the actual is <b>within</b> 5% of budget or target Green- when the actual is <b>equal to or higher</b> than budget or target	Red- when the actual is <b>higher</b> than 5% of budget or target Yellow- when the actual is <b>within</b> 5% of budget or target Green- when the actual is <b>equal to or lower</b> 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

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

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

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

E



## **Summary of Contracts on Consent Agenda**

**223<sup>rd</sup> Meeting of the DC Water Board of Directors**

**Thursday, September 1, 2016**

### **Joint-Use Contracts**

Resolution No. 16-62- Execute Option Year Two of Contract No. 14-PR-DFS-08, M&N Contractors, LLC. The purpose of the option is to continue providing janitorial services at DC Water facilities. The option amount is \$737,000. (Recommended by Environmental Quality and Sewerage Services Committee 7/21/16)

Resolution No. 16-63 – Execute Supplemental Agreement No. 6 of Contract No. DCFA #423, Black & Veatch Corporation. The purpose of the agreement is to provide additional construction phase services for ENR-North. The supplemental agreement amount is \$765,000. (Recommended by Environmental Quality and Sewerage Services Committee 7/21/16)

Resolution No. 16-64 – Execute Contract No. DCFA #474, CDM Smith, Inc. The purpose of the contract is to provide professional engineering and related services pertaining to the expansion and upgrades of the existing Water and Sewer SCADA system. The contract amount is \$2,500,000. (Recommended by Environmental Quality and Sewerage Services Committee 7/21/16)

Resolution No. 16-67 – Execute Contract No. 16-PR-HCM-26, Connecticut General Life Insurance (CIGNA). The purpose of the contract is to provide DC Water employees two (2) health insurance plans: Health Maintenance Organization (HMO) as well as Preferred Provider Organization (PPO) for employees hired after October 1, 1987. The contract amount is \$10,906,116. (Recommended by Human Resources and Labor Relations Committee 07/13/16)

Resolution No. 16-68- Execute Contract No. 16-PR-HCM-28, Delta Dental of the District of Columbia. The purpose of the contract is to provide a Dental Preferred Provider Organization (PPO) benefit to employees hired after October 1, 1987 or later. The contract amount is \$1,629,255.40, (Recommended by Human Resources and Labor Relations Committee 07/13/16)



**Non-Joint Use Contract**

Resolution No. 16-69 – Execute Contract No. 150130, Bradshaw Construction Corp. The purpose of the contract is to relocate a sanitary sewer under Oregon Avenue N.W. and Bingham Drive N.W. The contract amount is \$16,824,115. (Recommended by Environmental Quality and Sewerage Services Committee 07/21/16)

**Presented and Adopted: September 1, 2016**

**SUBJECT: Approval to Execute Option Year Two of Contract No. 14-PR-DFS-08, M&N Contractors, LLC**

**#16-62  
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 September 1, 2016 upon consideration of a joint use matter, decided by a vote of \_\_\_() in favor and \_\_\_() opposed to execute Option Year Two of Contract No. 14-PR-DFS-08, M&N Contractors, LLC.

**Be it resolved that:**

The Board of Directors hereby authorizes the General Manager to execute Option Year Two of Contract No. 14-PR-DFS-08, M&N Contractors, LLC. The purpose of the option is to continue providing janitorial services at DC Water facilities. The option amount is \$737,000.

This Resolution is effective immediately.

\_\_\_\_\_  
Secretary to the Board of Directors

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

**ACTION REQUESTED**

**GOODS AND SERVICES CONTRACT OPTION YEAR**

**Janitorial Services  
(Joint Use)**

Approval to exercise option year two (2) for Janitorial Services contract in the amount of \$737,000.00.

**CONTRACTOR/SUB/VENDOR INFORMATION**

<b>PRIME:</b> M & N Contractors, LLC 77 Randolph Road Silver Spring, MD 20904  LSBE	<b>SUBS:</b> N/A	<b>PARTICIPATION:</b> N/A
--	---------------------	------------------------------

**DESCRIPTION AND PURPOSE**

Original Contract Value:	\$673,640.52
Original Contract Dates:	10-21-2014—10-20-2015
No. of Option Years in Contract:	4
Modification Value:	\$16,119.98
Modification Dates:	01-15-2015—10-20-2015
Option Year 1 Value:	\$714,445.56
Option Year 1 Dates:	10-21-2015—10-20-2016
Modification Value:	\$15,722.80
Modification Dates:	12-21-2015—10-20-2016
<b>Option Year 2 Value:</b>	<b>\$737,000.00</b>
<b>Option Year 2 Dates:</b>	<b>10-21-2016—10-20-2017</b>

**Purpose of the Contract:**

To provide the District of Columbia Water and Sewer Authority (DC Water) with janitorial services at DC Water office space and facilities.

**Contract Scope:**

The contract provides for full and complete janitorial services to include labor, equipment, consumables and supervision for Blue Plains, Bryant Street, Fort Reno and 125 "O" Street.

**Spending Previous Year:**

Cumulative Contract Value:	10-21-2014 to 10-20-2016	\$1,419,928.86
Cumulative Contract Spending:	10-21-2014 to 06-30-2016	\$1,155,032.63

**Contractor's Past Performance:**

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

**PROCUREMENT INFORMATION**

<b>Contract Type:</b>	Fixed Price	<b>Award Based On:</b>	Highest Rated Offeror
<b>Commodity:</b>	Services	<b>Contract Number:</b>	14-PR-DFS-08
<b>Contractor Market:</b>	Open Market with Preference Points for LBE and LSBE Participation		

**BUDGET INFORMATION**

<b>Funding:</b>	Operating	<b>Department:</b>	Facilities
<b>Project Area:</b>	DC Water Wide	<b>Department Head:</b>	Johnnie Walker

**ESTIMATED USER SHARE INFORMATION**

User - Operating	Share %	Dollar Amount
District of Columbia	82.36%	\$606,993.20
Washington Suburban Sanitary Commission	12.98%	\$95,662.60
Fairfax County	3.21%	\$23,657.70
Loudoun Water	1.25%	\$9,212.50
Other (PI)	0.20%	\$1,474.00
<b>TOTAL ESTIMATED DOLLAR AMOUNT</b>	<b>100.00%</b>	<b>\$737,000.00</b>

  
 Gail Alexander-Reeves      Date  
 Director of Budget

  
 Dan Bae      Date  
 Director of Procurement

 7-15-16      STEVE CAIDWELL FOR R. INGE  
 Rosalind R. Inge      Date  
 Assistant General Manager,  
 Support Services

  
 George S. Hawkins      Date  
 General Manager

**Presented and Adopted: September 1, 2016**

**SUBJECT: Approval to Execute Supplemental Agreement No. 6 of  
Contract No. DCFA #423, Black & Veatch Corporation**

**#16-63  
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 September 1, 2016 upon consideration of a joint use matter, decided by a vote of \_\_() in favor and \_\_() opposed to execute Supplemental Agreement No. 6 of Contract No. DCFA #423, Black & Veatch Corporation.

**Be it resolved that:**

The Board of Directors hereby authorizes the General Manager to execute Supplemental Agreement No. 6 of Contract No. DCFA #423, Black & Veatch Corporation. The purpose of the agreement is to provide additional construction phase services for ENR-North. The supplemental agreement amount is \$765,000.

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 SUPPLEMENTAL AGREEMENT:  
Enhanced Nitrogen Removal North & Filtrate Treatment Facilities  
(Joint Use)**

Approval to execute Supplemental Agreement No.6 for \$765,000. The modification exceeds the General Manager's approval authority.

**CONTRACTOR/SUB/VENDOR INFORMATION**

<b>PRIME:</b>	<b>SUBS:</b>	<b>PARTICIPATION:</b>
Black & Veatch Corporation 18310 Montgomery Village Avenue Suite 500 Gaithersburg, MD 20879	McKissack & McKissack Washington, DC	WBE 30.9%
	HDR, Inc. Alexandria, VA	1.8%
	Milhouse Eng. & Const. Inc. Washington, DC	MBE 2.0%
	Diversified Engineering, Inc. Silver Spring, MD	MBE 3.3%
	Mercado Consultants, Inc. Ashton, MD	MBE 1.6%

**DESCRIPTION AND PURPOSE**

Original Contract Value:	\$ 2,319,000
Value of this Supplemental Agreement:	\$ 765,000
Cumulative SA Value, including this SA:	\$ 21,394,596
Current Contract Value, Including this SA:	\$ 23,713,596
Original Contract Time:	365 Days (1 Year, 0 Months)
Time extension, this SA:	0 Days
Total SA contract time extension:	2,641 Days (7 Years, 3 Months)
Contract Start Date:	08-11-2009
Contract Completion Date:	11-03-2017

**Purpose of the Contract:**

To provide Basis of Design Report, design services, bid phase services and engineering services during construction for the upgrade of Secondary Treatment Facilities for Enhanced Nitrogen Removal North (ENR-North) and for Filtrate Treatment Facilities (FTF) necessary for nitrogen removal.

**Original Contract Scope:**

- Concept planning and preliminary design of upgrades to the Secondary Treatment Facilities ("ENR-North")

**Previous Supplemental Agreement Scope:**

- Provide additional (continued) Construction Phase Services for ENR-North and FTF.



**Presented and Adopted: September 1, 2016**

**SUBJECT: Approval to Execute Contract No. DCFA #474  
CDM Smith, Inc.**

**#16-64  
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 September 1, 2016 upon consideration of a joint use matter, decided by a vote of \_\_\_() in favor and \_\_\_() opposed to execute Contract No. DCFA #474, CDM Smith, Inc.

**Be it resolved that:**

The Board of Directors hereby authorizes the General Manager to execute Contract No. DCFA #474, CDM Smith, Inc. The purpose of the contract is to provide professional engineering and related services pertaining to the expansion and upgrades of the existing Water and Sewer SCADA system. The contract amount is \$2,500,000.

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:**

**Engineering Consultant for the Supervisory Control and Data Acquisition (SCADA) System  
(Joint Use)**

Approval to execute an architectural and engineering services contract not to exceed \$2,500,000.

**CONTRACTOR/SUB/VENDOR INFORMATION**

<b>PRIME:</b>	<b>SUBS:</b>	<b>PARTICIPATION:</b>
CDM Smith 3201 Jermantown Road Suite 400 Fairfax, Virginia 22030	Sigma Associates Washington, DC	MBE 28.0%
	JDos Internationalé Washington, DC	WBE 4.0%

**DESCRIPTION AND PURPOSE**

Contract Value, Not-To-Exceed: \$2,500,000  
 Contract Time: 1095 Days (3 Years, 0 Months)  
 Anticipated Contract Start Date: 09-30-2016  
 Anticipated Contract Completion Date: 09-30-2019

Other firms submitting proposals/qualification statements:

- Brown and Caldwell \*
- EMA, Inc. \*
- Hatch Mott MacDonald \*
- MC Dean, Inc.

\* Asterisk indicates short listed firms.

**Purpose of the Contract:**

Provide professional engineering and related services pertaining to the expansion and upgrades of the existing Water and Sewer SCADA system.

**Contract Scope:**

- Services will include updating the Water and Sewer SCADA Master Plan, prioritizing recommendations, developing a migration plan and providing assistance in matters requiring engineering or technical expertise pertaining to existing, proposed, or newly constructed instrumentation and control systems.
- The work will be performed in two phases. Phase I includes preparation of updated Water and Sewer SCADA Master Plan, Design Guidelines and critical instrument and control related services. Phase II services will be performed on an as-needed basis through individually negotiated Task Orders based on recommendations from the updated Water and Sewer SCADA Master Plan Report.

**PROCUREMENT INFORMATION**

<b>Contract Type:</b>	Lump Sum and Cost Plus Fixed Fee	<b>Award Based On:</b>	Highest Ranking Score
<b>Commodity:</b>	Engineering Design Services	<b>Contract Number:</b>	DCFA #474
<b>Contractor Market:</b>	Open Market		


**BUDGET INFORMATION**

<b>Funding:</b>	Capital	<b>Department:</b>	Engineering and Technical Services
<b>Service Area:</b>	Water and Sanitary Sewer	<b>Department Head:</b>	Liliana Maldonado
<b>Project:</b>	MC, LT, GZ		

**ESTIMATED USER SHARE INFORMATION**

User	*Share %	Dollar Amount
District of Columbia	100.00%	\$2,500,000
Federal Funds	0.00%	\$
Washington Suburban Sanitary Commission	0.00%	\$
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	\$
<b>Total Estimated Dollar Amount</b>	<b>100.00%</b>	<b>\$2,500,000</b>

\* Under the terms of the IMA, the capital costs associated with each joint use facility are to be split among the users in proportion to the peak flow each user is allocated. It is not possible, at this time, to allocate costs by individual facility. It is anticipated that as projects are developed for work associated with specific facilities and costs are developed, the individual users will be notified and billed accordingly.

 7-13-16  
 Gail Alexander-Reeves Date  
 Director of Budget

 7/13/16  
 Dan Bae Date  
 Director of Procurement

 7-13-16  
 Leonard R. Benson Date  
 Chief Engineer

 8-2-2016  
 George S. Hawkins Date  
 General Manager

**PRESENTED AND ADOPTED: September 1, 2016**  
**SUBJECT: Approval of Use of FY 2016 Projected Net Cash Surplus**

**#16-65**  
**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 (the “Authority”), at the Board meeting held on September 1, 2016, upon consideration of a joint-use matter, decided by a vote of \_\_\_() in favor and \_\_\_() opposed to approve the following action.

WHEREAS, the Board at its meeting December 4, 1997 approved Resolution #97-121 stating financial policies for the District of Columbia Water and Sewer Authority; and

WHEREAS, on March 5, 1998 the Board of Directors, in Resolution #98-08, approved further amendments to the Policies which were intended to establish strong levels of cash reserves and strong debt service coverage; and

WHEREAS, on April 2, 2004 the Board of Directors, in Resolution, #04-30, approved additional amendments to the Policies which further describes the establishment of strong levels of cash reserves and debt service coverage; and

WHEREAS, on July 2, 2009, the Board of Directors, in Resolution #09-86, approved additional amendments to the Policies which further describes the calculation of the operating reserve; and

WHEREAS, on February 3, 2011, the Board of Directors, in Resolution #11-22, approved more specific guidance on the critical decision making of financing and use of excess cash for the capital program (pay-go) with approval of the “Pay-As-You-Go” Capital Financing Policy; and

WHEREAS, on May 2, 2013, the Board of Directors, in Resolution #13-57, approved a revised “Statement of Financial Policies”; and

WHEREAS, the Finance and Budget Committee met on July 28, 2016 and recommended that the Board adopt the attached recommended use of the FY2016 projected net cash surplus.

NOW THEREFORE BE IT RESOLVED THAT:

The Board hereby approves the transfer of ten million dollars (\$10,000,000.00) of the FY2016 projected net cash surplus to pay-go and approximately three million four hundred forty five thousand nine hundred sixty six dollars (\$3,445, 966) to the year- end cash balance.

This Resolution shall take effect immediately.

---

Secretary to the Board of Directors

**Presented and Adopted: September 1, 2016**  
**Subject: Approving the Substantially Final Form of Certain Documents,**  
**Authorizing the Sale and Setting Terms and Details**  
**of the Series 2016 Environmental Impact Bonds**

**#16-66**  
**RESOLUTION**  
**OF THE**  
**BOARD OF DIRECTORS**  
**OF THE**  
**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

The Board of Directors (“Board”) of the District of Columbia Water and Sewer Authority (“Authority”), at its meeting on September 1, 2016, by a vote of \_\_\_\_\_ ( ) in favor and \_\_\_\_\_ ( ) opposed, decided to approve the following:

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

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

**WHEREAS**, the Authority has heretofore entered into twenty (20) supplemental indentures of trust with the Trustee in connection with the issuance of Senior Debt and Subordinate Debt (both as defined in the Indenture) or to amend and clarify the Master Indenture; and

**WHEREAS**, the Authority now intends (i) to issue Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2016B (Environmental Impact Bonds) (the “Series 2016B Bonds”) to (a) finance a portion of the costs of the Authority’s DC Clean Rivers Project; (b) fund a Series 2016B Debt Service Reserve Requirement (as defined herein), if determined necessary; and (c) pay certain costs of issuance; (ii) to designate the Series 2016B Bonds as Subordinate Debt and as Variable Rate Indebtedness and as Tender Indebtedness for purposes of the Indenture; (iii) to secure the payment of principal of and interest on the Series 2016B Bonds by a pledge of Net Revenues subordinate to the pledge of Net Revenues that secures Senior Debt and on a parity with the pledge of Net Revenues that secures other Subordinate Debt, including, without limitation, other Subordinate Debt that the Authority may issue from time to time in the future; and (iv) to designate the Series 2016B Bonds as Environmental Impact Bonds and, as such, to make provision for the possibility of an Outcome Payment by the Authority to the Original Purchaser of the Series 2016B Bonds and for the possibility of a Risk Share Payment by the Original Purchaser of the Series 2016B Bonds to the Authority depending upon the results achieved by the project financed with the proceeds of the Series 2016B Bonds, with the potential obligation of the Authority to make an Outcome Payment being all as defined and provided for in a Private Placement Agreement authorized by this Resolution; and

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

**WHEREAS**, the Finance and Budget Committee met on July 28, 2016, to review the issuance of the Series 2016B Bonds and has recommended approval of this Resolution by the Board;

**NOW, THEREFORE, BE IT RESOLVED**, that:

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

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

“Certificate of Award” means the certificate of an Authorized Official awarding the Series 2016B Bonds to the Original Purchaser and specifying terms of the Series 2016B Bonds, as provided for in Section 4 of this Resolution.

“Financial Advisor” means Public Financial Management, Inc.

“Interest Payment Dates” means for the Series 2016B Bonds, the “Interest Payment Dates” as defined for the Series 2016B Bonds in the Twenty-First Supplemental Indenture.

“Original Purchaser” for the Series 2016B Bonds means the one or more purchasers identified as such in the Private Placement Agreement as the “Purchaser” for the Series 2016B Bonds.

“Private Placement Agreement” means the Private Placement Agreement between the Authority and the Original Purchaser, dated as of the same date as the Certificate of Award.

“Remarketing Agent” means any Remarketing Agent designated for the Series 2016B Bonds under the Twenty-First Supplemental Indenture.

“Remarketing Agreement” means any Remarketing Agreement entered into for Series 2016B Bonds under the Twenty-First Supplemental Indenture.

“Series 2016B Debt Service Reserve Requirement” means, if determined to be necessary, a required fund balance in the Series 2016B Debt Service Reserve Account or Accounts established under the Twenty-First Supplemental Indenture, the amount of which shall be specified in the Certificate of Award, but which, if the Series 2016B Bonds are Tax-Exempt Obligations, shall not exceed the maximum amount permitted to constitute a “reasonably required reserve or replacement fund” under the size limitation set forth in Section 1.148-2(f)(2) of the Treasury Regulations promulgated under the Code (taking into account any moneys in any other fund or account that may be required to be included in such computation) unless the Authority furnishes to the Trustee an opinion of nationally recognized bond counsel to the effect that the required balance in the Series 2016B

Debt Service Reserve Account does not exceed the amount that qualifies as a “reasonably required reserve or replacement fund” within the meaning of Section 148(d) of the Code and the Treasury Regulations thereunder and that the existence of a balance in the Series 2016B Debt Service Reserve Account in the amount of the required fund balance will not cause the interest on any Series 2016B Bonds that had been excluded from gross income for federal income tax purposes to cease to be so.

“Taxable Obligations” means any Series 2016B Bonds not designated as Tax-Exempt Obligations in the Certificate of Award.

“Tax-Exempt Obligations” means any Series 2016B Bonds designated as Tax-Exempt Obligations in the Certificate of Award.

“Term Sheet” means the Indicative Term Sheet for Environmental Impact Bonds, in the draft form dated July 21, 2016 presented to this Authority.

“Twenty-First Supplemental Indenture” means the Twenty-First Supplemental Indenture of Trust by and between the Authority and the Trustee, dated as of the same date as and relating to the Series 2016B Bonds.

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

Section 2. Authorization, Designation and Purposes of Series 2016B Bonds. The Authority is authorized to issue, sell and deliver, as provided in this Resolution and the Certificate of Award, not to exceed (except as provided below) Thirty Million Dollars (\$30,000,000) principal amount of bonds of the Authority, which shall be designated “Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2016B (Environmental Impact Bonds)” and constituting Subordinate Debt, Variable Rate Indebtedness and Tender Indebtedness for purposes of the Indenture, for the purpose of: (a) financing a portion of the costs of the Authority’s DC Clean Rivers Project, (b) funding a Series 2016B Debt Service Reserve Requirement, if determined necessary; and (c) paying issuance costs of the Series 2016B Bonds. For those purposes the proceeds from the sale of the Series 2016B Bonds shall be allocated and deposited, as provided in the Twenty-First Supplemental Indenture. If and to the extent that any Series 2016B Bonds are issued for the purpose of funding a Series 2016B Debt Service Reserve Requirement, then the aggregate principal amount of Series 2016B Bonds hereby authorized may



exceed \$30,000,000 by the aggregate principal amount of the Series 2016B Bonds to be issued for that purpose. Any designation of bonds authorized above may be revised or clarified in the Certificate of Award.

Section 3. Terms and Provisions Applicable to the Series 2016B Bonds. All capitalized words and terms used in this Section 3 not elsewhere defined herein are used with the definitions assigned to them in Section 102(b) of the Twenty-First Supplemental Indenture.

(a) Form, Transfer and Exchange. The Series 2016B Bonds: (i) shall initially be issued only in fully registered form and substantially in the form attached as an Exhibit to the Twenty-First Supplemental Indenture; (ii) if requested by the Original Purchaser, shall initially be issued only to a Depository for holding in a book entry system, and shall be registered in the name of the Depository or its nominee, as Holder, and immobilized in the custody of the Depository, and (iii)] shall not be transferable or exchangeable except as provided herein and in the Twenty-First Supplemental Indenture.

(b) Denominations and Dates. The Series 2016B Bonds shall be dated as of the date of issuance and delivery, but in no event later than December 31, 2017, and there shall be a single Series 2016B Bond representing each interest rate for each maturity of the Series 2016B Bonds bearing the same series or subseries designation.

(c) Interest Rates and Interest Rate Periods for the Series 2016B Bonds.

The Series 2016B Bonds shall initially be issued as Long-Term Rate Bonds and, as such, shall bear interest during the Initial Period at a rate determined in the Certificate of Award. After the Initial Period, the Series 2016B Bonds may bear interest at Index Rates, Daily Rates, Weekly Rates, Short-Term Rates, Long-Term Rates, or a Fixed Rate, or may continue to bear interest at a Long-Term Rate, all determined in accordance with the Twenty-First Supplemental Indenture, and shall be subject to conversion between Interest Rate Periods on the terms, in the manner, and subject to the conditions set forth in the Twenty-First Supplemental Indenture.

(d) Tender, Purchase, Remarketing and Optional Redemption of Series 2016B Subordinate Bonds. During the Initial Period, the Series 2016B Bonds shall be subject to mandatory tender (either as Hard Tender Index Rate Bonds or Soft Tender Index Rate Bonds, as defined in the Twenty-First Supplemental

Indenture and as designated in the Certificate of Award) by the Holders for purchase on the Initial Long-Term Rate Bonds Purchase Date applicable to Series 2016B Bonds. During any Subsequent Interest Rate Period, the Series 2016B Bonds may be subject to optional and mandatory tender by the Holders for purchase and remarketing, all on the terms, in the manner, and subject to the conditions set forth in the Twenty-First Supplemental Indenture. For the purpose of effecting the provisions of the Twenty-First Supplemental Indenture relating to the tender, purchase and remarketing of the Series 2016B Bonds, the Authority shall appoint or engage the Tender Agent and Remarketing Agent at the times, in the manner, and subject to the conditions set forth in the Twenty-First Supplemental Indenture. During any Long-Term Rate Period, the Series 2016B Bonds shall be subject to redemption at the option of the Authority in accordance with the Twenty-First Supplemental Indenture in whole or in part (in whole multiples of their Authorized Denominations) on such date or dates specified in the applicable Certificate of Award or Notice of Conversion, as the case may be, at a redemption price equal to the principal amount of the Series 2016B Bonds to be redeemed plus interest accrued to the redemption date, provided that the Earliest Optional Redemption Date for the Series 2016B Bonds shall be no later than December 31, 2026.

(e) Redemption Provisions. Redemption of Series 2016B Bonds shall be effected in accordance with Article IV of the Master Indenture; provided, however, that notices of redemption of Series 2016B Bonds sent pursuant to Section 402 of the Master Indenture may specify that the redemption is conditional upon the Authority's depositing the funds needed to effect that redemption prior to the specified redemption date.

(f) Places and Manner of Payment. The principal of and the interest and any redemption premium on the Series 2016B Bonds shall be payable at the places and in the manner specified in the Twenty-First Supplemental Indenture.

(g) Execution. The Authorized Officials are, and each of them is, authorized and directed to execute the Series 2016B Bonds, and the Secretary of the Board is authorized and directed to affix the seal of the Authority to the Series 2016B Bonds and to deliver them to the Trustee for authentication in accordance with the Indenture.

(h) "Green Bonds" Designation. The Authorized Officials are, and each of them is, authorized to specify in the Certificate of Award whether the Series 2016BBonds shall bear the designation of "Green Bonds." In the event that the Certificate of Award does not state that the Series 2016BBonds shall bear that designation, the Authorized Officials may determine to apply that designation to the

Series 2016B Bonds at the end of the Initial Period and in connection with any tender and remarketing of the Series 2016B Bonds at that time.

Section 4. Sale of Series 2016B Bonds.

(a) General. The Series 2016B Bonds shall be awarded and sold to the Original Purchaser in accordance with the Private Placement Agreement and the Certificate of Award, at a purchase price of not less than ninety-eight percent (98%) of the aggregate principal amount thereof. The Private Placement Agreement shall reflect and be consistent with the Term Sheet.

(b) Outcome Payment and Risk Share Payment. Without limiting the generality of 4(a): (i) the Private Placement Agreement shall make provision for the contingent payment by the Authority to the Original Purchaser of the “Outcome Payment” and by the Original Purchaser to the Authority of the “Risk Share Payment,” both as defined in the Term Sheet, subject to the conditions and limitations, at the times, in the amounts, and otherwise on the terms set forth in the Term Sheet or in the Private Placement Agreement. The Outcome Payment, if payable, shall be payable from the sources and secured in the manner described in the Term Sheet or in the Private Placement Agreement. The payment of the Risk Share Payment, if payable, shall be effected in the manner described in the Term Sheet or in the Private Placement Agreement. Any Outcome Payment or Risk Share Payment, whether contingent or actual, shall not constitute or be treated as principal of or interest on the Series 2016B Bonds for any purpose of the Indenture, including, without limitation, the Rate Covenant or any conditions for the issuance of Bonds or Subordinate Debt.

(c) Private Placement Agreement. The Authorized Officials are, and each of them is, authorized and directed to execute and deliver the Private Placement Agreement between the Authority and the Original Purchaser, substantially in the form presented to this Authority, but with such changes not inconsistent with the Indenture and this Resolution and not substantially adverse to the Authority as may be approved by the Authorized Official executing the same on behalf of the Authority. The approval of any such changes by such Authorized Official (including, without limitation, any additional provisions relating to the payment or reimbursement of reasonable expenses incurred by the Authority or other parties related to and necessary for the issuance of the Series 2016B Bonds) and the determination by such Authorized Official that no such change is substantially adverse to the Authority shall be conclusively evidenced by the execution of the Private Placement Agreement by such Authorized Official. Without limiting the generality of the foregoing, the Authorized Officials are

authorized to determine that the Private Placement Agreement may take the form of more than one agreement, each of which may bear a different designation, but all of which shall collectively constitute the Private Placement Agreement for purposes of this Resolution. The price for and terms of the Series 2016B Bonds and the sale thereof, all as provided in this Resolution, the Term Sheet, the Private Placement Agreement, the Certificate of Award, and the Twenty-First Supplemental Indenture, are hereby approved and determined to be in the best interests of the Authority.

(d) Certificate of Award. Such sale and award shall be further evidenced by the Certificate of Award executed by an Authorized Official. The terms of the Series 2016B Bonds approved in the Certificate of Award shall be incorporated into the Twenty-First Supplemental Indenture. The Certificate of Award, subject to the restrictions set forth herein, shall: (i) with respect to each series or subseries of the Series 2016B Bonds, specify the aggregate principal amount, the purchase price, the first Interest Payment Dates, the interest rate or rates, the principal retirement dates, the mandatory sinking fund requirements (if any), the redemption dates, and the redemption prices thereof; (ii) specify with respect to each series or subseries of the Series 2016B Bonds, whether they shall be Taxable Obligations or Tax-Exempt Obligations; (iii) specify the amount, if any, of the Series 2016B Debt Service Reserve Requirement and determine whether it shall be met entirely with (A) cash and Permitted Investments (as defined in the Indenture); (B) a Qualified Reserve Credit Facility (as defined in the Indenture); or (C) a specified combination of (A) and (B); (iv) determine whether the Series 2016B Bonds shall bear the “Green Bonds” designation during the Initial Period; and (v) include any additional information that may be required or permitted to be stated therein by the terms of this Resolution and the Private Placement Agreement.

(e) Certificates. The Authorized Officials are, and each of them is, authorized and directed, in their official capacities, to execute and deliver to the Original Purchaser the certificates required by the Private Placement Agreement to be executed on behalf of the Authority.

(f) Delivery of Bonds. The Authorized Officials are, and each of them is, authorized and directed to make the necessary arrangements with the Original Purchaser to establish the date, location, procedure and conditions for the delivery of the Series 2016B Bonds to the Original Purchaser. The Authorized Officials are, and each of them is, further authorized and directed to make the necessary arrangements for the printing of the Series 2016B Bonds, and the execution, authentication and delivery of the Series 2016B Bonds to DTC or otherwise for the accounts of the Original Purchaser in accordance with this Resolution and the Indenture, and upon the receipt of payment of the purchase price,

to cause such amount to be applied in accordance with the terms and provisions of this Resolution and the Indenture.

Section 5. Allocation of Proceeds of the Series 2016B Bonds; Tax Covenants.

(a) Allocation of Proceeds of the Series 2016B Bonds. The proceeds from the sale of the Series 2016B Bonds shall be allocated, deposited and credited for the purposes approved in this Resolution and as specified in the Twenty-First Supplemental Indenture.

(b) Tax Covenants. The Board authorizes the Authorized Officials to approve the tax covenants, authorizations and agreements necessary to achieve and maintain the tax-exempt status of any Series 2016B Bonds that are designated in the Certificate to be Tax-Exempt Obligations.

Section 6. Twenty-First Supplemental Indenture and Other Documents. The Authorized Officials are, and each of them is, authorized in connection with the issuance of the Series 2016B Bonds, to execute, acknowledge and deliver in the name of and on behalf of the Authority, the Twenty-First Supplemental Indenture, substantially in the form thereof submitted to the Authority at or prior to this meeting, but with such changes therein as may be permitted by the Indenture and this Resolution and approved by the Authorized Officer executing the document on behalf of the Authority. The approval of those changes shall be conclusively evidenced by the execution of the document by an Authorized Official.

The Authorized Officials are, and each of them is, authorized at the time required under the Twenty-First Supplemental Indenture to designate the Remarketing Agent and to execute, acknowledge and deliver, in the name of and on behalf of the Authority, the Remarketing Agreement in a form determined by the Authorized Officer executing the document on behalf of the Authority to be consistent with the Indenture and this Resolution. The determination of such consistency shall be conclusively evidenced by the execution of the document by an Authorized Official.

The Authorized Officials and any other member, officer or employee of the Authority are each authorized to execute and deliver, on behalf of the Authority, such other certificates, documents and instruments related to the Series 2016B Bonds as are necessary in connection with the transactions authorized in this Resolution, and to do all other things required of them or the Authority pursuant to

the Indenture, the Twenty-First Supplemental Indenture , the Private Placement Agreement and this Resolution.

No covenant, agreement or obligation contained herein shall be deemed to be a covenant, agreement or obligation of any present or future member of the Board or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board nor any officer of the Authority executing the Series 2016B Bonds shall be liable personally thereon or be subject to any personal liability or accountability by reason of the issuance thereof. No member of the Board or officer, employee, agent or advisor of the Authority shall incur any personal liability with respect to any other action taken by him pursuant to this Resolution or the Indenture or any other document authorized by this Resolution, provided such member, officer, employee, agent or advisor acts in good faith.

Section 7. Provision of Information. The Authorized Officials are, and each of them is, authorized to compile, prepare and deliver to the Original Purchaser any documents and information that the Original Purchaser may reasonably request in lieu of receiving an official statement or other offering memorandum and that an Authorized Official determines is appropriate to provide to the Original Purchaser.

The Authorized Officials are each hereby authorized to furnish such information, to execute such instruments and to take such other action in cooperation with the Original Purchaser as may be reasonably requested to qualify the Series 2016B Bonds for offer and sale under the Blue Sky or other securities laws and regulations and to determine their eligibility for investment under the laws and regulations of such states and other jurisdictions of the United States of America as may be designated by the Original Purchaser; provided, however, that the Authority shall not be required to register as a dealer or broker in any such state or jurisdiction or become subject to the service of process in any jurisdiction in which the Authority is not now subject to such service.

Section 8. General. The appropriate officers and employees of the Authority will do all things necessary and proper to implement and carry out the orders and agreements set forth or approved in this Resolution for the proper fulfillment of the purposes thereof. The Authority shall furnish to the Original Purchaser of the Series 2016B Bonds a true and certified transcript of all proceedings relating to the authorization and issuance of the Series 2016B Bonds along with other information as is necessary or proper with respect to the Series 2016B Bonds.

Section 9. Multiple Series. Notwithstanding anything herein to the contrary, each of the Series 2016B Bonds may be issued in one or more separate series or subseries, each bearing a distinctive designation, provided that the Series 2016B Bonds of all series in the aggregate, must satisfy the requirements and comply with the restrictions of this Resolution and the Indenture. Separate series and subseries of Series 2016B Bonds may be issued at the same or different times and so may have different dates of issuance. The Series 2016B Bonds of each series and subseries shall be designated as provided in the applicable Certificate of Award. A separate Certificate of Award may be delivered for each series or subseries, and each reference in this Resolution to the Certificate of Award shall refer to each and all such Certificates of Award. A separate Supplemental Trust Indenture may be entered into for each series or subseries, and each reference in this Resolution to the Twenty-First Supplemental Indenture shall refer to each and all such Supplemental Trust Indentures, but any Supplemental Trust Indenture subsequent to the Twenty-First Supplemental Indenture shall bear a different designation. A separate Private Placement Agreement and Continuing Disclosure Agreement may be entered into for each series or subseries, and each reference in this Resolution to the Private Placement Agreement or to the Continuing Disclosure Agreement shall refer to each and all such Private Placement Agreement s or Continuing Disclosure Agreement s, respectively. A separate Official Statement may be prepared for each series or subseries, and each reference in this Resolution to the Official Statement shall refer to each and all such Official Statements.

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

---

Secretary to the Board of Directors

**Presented and Adopted: September 1, 2016**

**SUBJECT: Approval to Execute Contract No. 16-PR-HCM-26  
Connecticut General Life Insurance (CIGNA)**

**#16-67  
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 September 1, 2016 upon consideration of a joint use matter, decided by a vote of \_\_\_() in favor and \_\_\_() opposed to execute Contract No. 16-PR-HCM-26, Connecticut General Life Insurance (CIGNA).

**Be it resolved that:**

The Board of Directors hereby authorizes the General Manager to execute Contract No. 16-PR-HCM-26, Connecticut General Life Insurance (CIGNA). The purpose of the contract is to provide DC Water employees two (2) health insurance plans: Health Maintenance Organization (HMO) as well as Preferred Provider Organization (PPO) for employees hired after October 1, 1987. The contract amount is \$10,906,116.

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  
Medical Health Insurance Plans  
(Joint Use)**

Approval to execute a new contract award for medical health insurance plans for the base year in the amount of \$10,906,116.00.

**CONTRACTOR/SUB/VENDOR INFORMATION**

<b>PRIME:</b> Connecticut General Life Insurance (CIGNA) 111 South Calvert Street Baltimore, Maryland 21202	<b>SUBS:</b> L.T. Printing and Promotion 9 Grant Circle NW Washington, DC 20011 LBE	<b>PARTICIPATION:</b> 0.2%
--	---	-------------------------------

**DESCRIPTION AND PURPOSE**

Base Period Contract Value:	\$10,906,116.00
Base Contract Period:	1 Year
No. of Option Years:	4
Anticipated Contract Start Date:	01-01-2017
Anticipated Base Period Completion Date:	12-31-2017
Proposal Closing Date:	03-17-2016
Proposals Received:	4
Proposal Price Range:	\$10,668,478.00 - \$10,906,116.00
Preference Points Received:	0.2

**Purpose of the Contract:**

This contract is to provide DC Water's employees two (2) health insurance plans: Health Maintenance Organization (HMO) as well as a Preferred Provider Organization (PPO) for employees hired after October 1, 1987.

**Contract Scope:**

DC Water has a continuing need to provide its employees with health insurance benefits. This contract will offer comprehensive medical coverage to employees and their families.

The selected firm must adjudicate and administer medical claims, provide an extensive network of medical providers in the metropolitan area, provide a robust wellness and disease management program, and medical reporting capabilities.

**Evaluated Companies and Preference Points:**

DC Water issued a Request for Proposal for Medical Health Plans. Proposals were received from Aetna, CareFirst, United Healthcare and CIGNA. The technical evaluation committee rated CIGNA's plans the best, although it is slightly higher in cost, it offers DC Water the best overall value to its employees.

<b>Factors and Rankings</b>	<b>Aetna</b>	<b>CareFirst</b>	<b>United Healthcare</b>	<b>CIGNA</b>
Meet the Scope and Requirements of Service	2	3	4	1
Organizational experience and proposed staff qualifications, experience and expertise	2	3	4	1
Past Performance	2	3	4	1
Reasonableness of Proposed Price	2	3	1	4
<b>Preference Points</b>				
Local Business Enterprise	N/A	0.1 point	N/A	0.2 point
Local Small Business Enterprise	N/A	N/A	N/A	N/A

Note: Rankings: 1 – Highest score & 4 Lowest score

**PROCUREMENT INFORMATION**

<b>Contract Type:</b>	Fixed Price	<b>Award Based On:</b>	Highest Rated Offeror
<b>Commodity:</b>	Services	<b>Contract Number:</b>	16-PR-HCM-26
<b>Contractor Market:</b>	Open Market with Preference Points for LBE and LSBE Participation		

**BUDGET INFORMATION**

<b>Funding:</b>	Operating	<b>Department:</b>	Human Capital Management
<b>Service Area:</b>	DC Water Wide	<b>Department Head:</b>	Arthur Green

**ESTIMATED USER SHARE INFORMATION**

User	Share %	Dollar Amount
District of Columbia	82.36%	\$8,982,277.14
Washington Suburban Sanitary Commission	12.98%	\$1,415,613.86
Fairfax County	3.21%	\$350,086.32
Loudoun Water	1.25%	\$136,326.45
Other (PI)	0.20%	\$21,812.23
<b>TOTAL ESTIMATED DOLLAR AMOUNT</b>	<b>100.00%</b>	<b>\$10,906,116.00</b>

 7/8/16  
 Gail Alexander-Reeves Date  
 Director of Budget

 7/6/16  
 Dan Bae Date  
 Director of Procurement

 7/8/16  
 Rosalind Inge Date  
 Assistant General Manager,  
 Support Services

 8-2-2016  
 George S. Hawkins Date  
 General Manager

**Presented and Adopted: September 1, 2016**  
**SUBJECT: Approval to Execute Contract No. 16-PR-HCM-28**  
**Delta Dental of the District of Columbia**

**#16-68**  
**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 September 1, 2016 upon consideration of a joint use matter, decided by a vote of \_\_\_() in favor and \_\_\_() opposed to execute Contract No. 16-PR-HCM-28, Delta Dental of the District of Columbia.

**Be it resolved that:**

The Board of Directors hereby authorizes the General Manager to execute Contract No. 16-PR-HCM-28, Delta Dental of the District of Columbia. The purpose of the contract is to provide a Dental Preferred Provider Organization (PPO) benefit to employees hired after October 1, 1987 or later. The contract amount is \$1,629,255.40.

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**

**Dental Insurance Plans**

**(Joint Use)**

Approval to execute a new contract award for a Dental Preferred Provider Organization (DPPO) plan for the base period in the amount of \$1,659,225.40.

**CONTRACTOR/SUB/VENDOR INFORMATION**

<b>PRIME:</b> Delta Dental of the District of Columbia One Delta Drive Mechanicsburg, PA 17055	<b>SUBS:</b> N/A	<b>PARTICIPATION:</b> N/A
---	---------------------	------------------------------

**DESCRIPTION AND PURPOSE**

Base Period Contract Value:	\$1,659,225.40
Base Contract Period:	3 Years
No. of Option Years:	2
Anticipated Contract Start Date:	01-01-2017
Anticipated Base Period Completion Date:	12-31-2019
Proposal Closing Date:	05-04-2016
Proposals Received:	6
Proposal Price Range:	\$438,718.00 - \$535,234.00 (annually)
Preference Points Received:	0

**Purpose of the Contract:**

This contract is to provide a Dental Preferred Provider Organization (DPPO) benefit to employees hired after October 1, 1987 or later. Dental Health Maintenance Organization (DHMO) is provided under a separate contract.

**Contract Scope:**

DC Water has a continuing need to provide its employees with dental insurance benefits. This contract will offer comprehensive dental coverage to employees and their families.

The selected firm must adjudicate and administer dental claims, provide an extensive network of dental providers in the metropolitan area, and have dental reporting capabilities.

**Evaluated Companies and Preference Points:**

DC Water issued a Request for Proposal for Dental Health Plans. Proposals were received from Aetna, Dominion, Delta, United Concordia, United Healthcare and CIGNA. The technical evaluation committee rated Delta's plan the best, although it is slightly higher in cost, it offers DC Water the best overall value to its employees.

Factors and Rankings	Aetna	CIGNA	Delta	Dominion	United Healthcare	United Concordia
Meet the Scope and Requirements	5	3	1	4	3	2
Experience and Qualifications of Key Personnel	5	3	1	4	4	2
Past Performance	4	3	1	5	4	2
Price Reasonableness	1	4	6	3	5	2
<b>Preference Points</b>						
Local Business Enterprise	N/A	0.7	N/A	N/A	N/A	N/A
Local Small Business Enterprise	N/A	N/A	N/A	N/A	N/A	N/A

No LBE/LSBE participation

Note: Rankings: 1 – Highest score & 6 Lowest score

**PROCUREMENT INFORMATION**


<b>Contract Type:</b>	Fixed Price	<b>Award Based On:</b>	Highest Rated Offeror
<b>Commodity:</b>	Services	<b>Contract Number:</b>	16-PR-HCM-28
<b>Contractor Market:</b>	Open Market with Preference Points for LBE and LSBE Participation		

**BUDGET INFORMATION**

<b>Funding:</b>	Operating	<b>Department:</b>	Human Capital Management
<b>Service Area:</b>	DC Water Wide	<b>Department Head:</b>	Arthur Green

**ESTIMATED USER SHARE INFORMATION**

User	Share %	Dollar Amount
District of Columbia	82.36%	\$1,366,538.03
Washington Suburban Sanitary Commission	12.98%	\$215,367.46
Fairfax County	3.21%	\$53,261.14
Loudoun Water	1.25%	\$20,740.32
Other (PI)	0.20%	\$3,318.45
<b>TOTAL ESTIMATED DOLLAR AMOUNT</b>	<b>100.00%</b>	<b>\$1,659,255.40</b>

  
 Gail Alexander-Reeves  
 Director of Budget  
 Date 7/8/16

  
 Dan Bae  
 Director of Procurement  
 Date 7/7/16

  
 Rosalind Inge  
 Assistant General Manager,  
 Support Services  
 Date 7/8/16

  
 George S. Hawkins  
 General Manager  
 Date 8-2-2016

**Presented and Adopted: September 1, 2016**  
**SUBJECT: Approval to Execute Contract No. 150130**  
**Bradshaw Construction Corp.**

**#16-69**  
**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 September 1, 2016 upon consideration of a non-joint use matter, decided by a vote of \_\_\_() in favor and \_\_\_() opposed to execute Contract No. 150130, Bradshaw Construction Corp.

**Be it resolved that:**

The Board of Directors hereby authorizes the General Manager to execute Contract No. 150130, Bradshaw Construction Corp. The purpose of the contract is to relocate a sanitary sewer under Oregon Avenue N.W., and Bingham Drive N.W. The contract amount is \$16,824,115.

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**

**CONSTRUCTION CONTRACT:  
Oregon Avenue NW Sewer Rehabilitation  
(Non-Joint Use)**

Approval to execute a construction contract for \$ 16,824,115.00.

**CONTRACTOR/SUB/VENDOR INFORMATION**

<b>PRIME:</b>	<b>SUBS:</b>	<b>PARTICIPATION:</b>
Bradshaw Construction Corp. 175 West Liberty Road Eldersburg, MD 21784	GE Frisco Co. Inc. Upper Marlboro, MD	MBE 13.0%
	Total Civil Construction Lanham, MD	MBE 9.2%
	Elite Hauling Group Gaithersburg, MD	MBE 4.2%
	Metro Paving Corp. Hyattsville, MD	MBE 1.8%
	Pioneer Contracting Co. Inc. Odenton, MD	MBE 0.9%
	Global Construction Washington, DC	MBE 0.9%
	Traffic Engineering Services Burtonsville, MD	MBE 0.8%
	Apro Enterprises Inc. Laurel, MD	MBE 0.7%
	Apex Petroleum Corp. Upper Marlboro, MD	MBE 0.7%
	Aultec Inc. Gaithersburg, MD	MBE 0.3%
	EBA Engineering Washington, DC	MBE 0.2%
	Seed and Site Solutions Germantown, MD	MBE 0.1%
	Utility Imaging Mount Airy, MD	MBE 0.04%
	A-Plus Contracting Charlotte, NC	WBE 5.6%
Empire Landscape Silver Spring, MD	WBE 0.4%	

DESCRIPTION AND PURPOSE	
-------------------------	--

Contract Value, Not-To-Exceed:	\$ 16,824,115.00
Contract Time:	780 Day (2 Years, 2 Months)
Anticipated Contract Start Date:	10-20-2016
Anticipated Contract Completion Date:	12-09-2018
Bid Opening Date:	05-26-2016
Bids Received:	4
Other Bids Received	
Northeast Remsco Construction Corporation.	\$ 17,735,420.00
Midwest Mole, Inc.	\$ 18,319,480.00
Fort Myer Construction Corporation	\$ 22,992,040.00

**Purpose of the Contract:**

A sanitary sewer will be relocated under Oregon Avenue NW and Bingham Drive NW, in order to eliminate the necessary rehabilitation of the existing creek bed sanitary sewer in the environmentally sensitive and difficult to access Pinehurst Branch East in Rock Creek Park.

**Contract Scope:**

- Construction of approximately 4,400 LF of 24" diameter gravity sewers by open cut and trenchless methods.
- Construction of 17 new manholes and installation of Geo-polymer lining for existing and new sewer manholes.
- Abandonment of existing sewers in-place using flowable fill.

**Federal Grant Status:**

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



**PROCUREMENT INFORMATION**

<b>Contract Type:</b>	Fixed Price	<b>Award Based On:</b>	Lowest responsive, responsible bidder
<b>Commodity:</b>	Construction	<b>Contract Number:</b>	150130
<b>Contractor Market:</b>	Open Market		

**BUDGET INFORMATION**

<b>Funding:</b>	Capital	<b>Department:</b>	Engineering and Technical Services
<b>Service Area:</b>	Sanitary	<b>Department Head:</b>	Liliana Maldonado
<b>Project:</b>	IL		

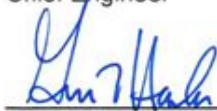
**ESTIMATED USER SHARE INFORMATION**

User	Share %	Dollar Amount
District of Columbia	100.00%	\$ 16,824,115.00
Federal Funds	0.00%	\$ 0.00
Washington Suburban Sanitary Commission	0.00%	\$ 0.00
Fairfax County	0.00%	\$ 0.00
Loudoun County & Potomac Interceptor	0.00%	\$ 0.00
<b>Total Estimated Dollar Amount</b>	<b>100.00%</b>	<b>\$ 16,824,115.00</b>

 7/13/16  
 Gail Alexander-Reeves Date  
 Director of Budget

 7/13/16  
 Dan Bae Date  
 Director of Procurement

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

 8-2-2016  
 George S. Hawkins Date  
 General Manager