

water is life DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY 231st MEETING OF THE BOARD OF DIRECTORS

Thursday, May 4, 2017 9:30 a.m. 5000 Overlook Avenue, SW Room 407

- I. Call to Order (Chairman Matthew Brown)
- II. Roll Call (Linda Manley, Board Secretary)
- III. Approval of April 6, 2017 Minutes
- IV. Chairman's Overview
- V. Committee Reports
 - 1. Environmental Quality and Operations Committee (Howard Gibbs)
 - 2. Human Resource and Labor Relations Committee (Bradley Frome)
 - 3. Audit Committee (Nicholas Majett)
 - 4. Finance and Budget Committee (Matthew Brown)
- VI. Issues of General Interest
- VII. CEO/General Manager's Report (George Hawkins)
- VIII. Summary of Contracts (FYI)
- IX. Consent Items (Joint Use)
 - 1. Approval to Execute Contract No. 17-PR-DFM-02, AN Exterior, Inc. Resolution No. 17-25 (Recommended by Environmental Quality and Operations Committee 04/20/17)
 - Approval to Execute Option Year One of Contract No. 16-PR-DWT-13A, Urban Service Systems Corporation – Resolution No.17-26 (Recommended by Environmental Quality and Operations Committee 04/20/17)
 - Approval to add Funding to Contract No. 16-PR-DMS-43, Electric Motor & Contracting Co., Inc. (EMC) – Resolution No. 17-27 (Recommended by Environmental Quality and Operations Committee 04/20/17)
 - Approval to Execute Supplemental Agreement No. 1 of Contract No. DCFA-#463-WSA, AECOM Services of DC Resolution No. 17-28 (Recommended by Environmental Quality and Operations Committee 04/20/17)

- Approval to Execute Contract No. DCFA #485-WSA, Pure Technologies US, Inc. Resolution No. 17-29 (Recommended by Environmental Quality and Operations Committee 04/20/17)
- Approval to Execute Contract No. DCFA #490-WSA, Arcadis District of Columbia, PC

 Resolution No. 17-30 (Recommended by Environmental Quality and Operations Committee 04/20/17)
- Approval to Execute Change Order No. 7 of Contract No. 130060, American Contracting & Environmental Services – Resolution No. 17-31 (Recommended by Environmental Quality and Operations Committee 04/20/17)
- Approval to Execute the Extension of the Credit Facility for the Series 2014B Subordinate Bonds – Resolution No. 17-32 (Recommended by Finance and Budget Committee 04/27/17)

X. Consent Items (Non-Joint Use)

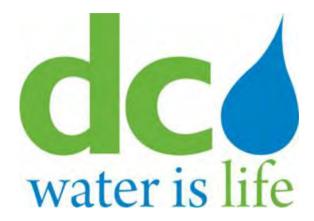
- Approval to Execute Change Order No. 7 of Contract No. 070110, CPP Construction Company – Resolution No. 17-33 (Recommended by Environmental Quality and Operations Committee 04/20/17)
- Approval to Execute Change Order No. 5 of Contract No. 140160, SAK Construction, LLC – Resolution No. 17-34 (Recommended by Environmental Quality and Operations Committee 04/20/17)
- 3. Approval to Execute Contract No. 150170, J. Fletcher Creamer & Son, Inc. Resolution No. 17-35 (Recommended by Environmental Quality and Operations Committee 04/20/17)
- **XI**. **Executive Session** To discuss legal, confidential and privileged matters pursuant to Section 2-575(b) of the D.C. Official Code1

XII. Adjournment (Chairman Matthew Brown)

1 The DC Water Board of Directors may go into executive session at this meeting pursuant to the District of Columbia Open Meetings Act of 2010, if such action is approved by a majority vote of the Board members who constitute a quorum to discuss: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); contract negotiations under D.C. Official Code § 2-575(b)(1); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4); collective bargaining negotiations under D.C. Official Code § 2-575(b)(5); facility security under D.C. Official Code § 2-575(b)(8); disciplinary matters under D.C. Official Code § 2-575(b)(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.

<u>Upcoming Committee Meetings (5000 Overlook Avenue SW (Blue Plains – 4th Floor)</u>

- Governance Committee Wednesday, May 10th @ 9:00 a.m.
- Human Resource and Labor Relations Committee Wednesday, May 10th @ 11:00 a.m. (with Union Presidents)
- Environmental Quality and Operations Committee Thursday, May 18th @ 9:30 a.m.
- DC Retail Water and Sewer Rates Committee Thursday, May 25th @ 9:30 a.m.
- Finance and Budget Committee Thursday, May 25th @ 11:00 a.m.



Board of Directors

Environmental Quality and Operations Committee Meeting Thursday, April 20, 2017

Water and Sewer Authority

9:30 a.m.

MEETING MINUTES

District of Columbia

Committee Members

Howard Gibbs, Chairperson Anthony Giancola Mathew Brown, Board Chairman David Lake

DC Water Staff Present

George Hawkins, CEO/General Manager Linda Manley, Secretary to the Board Meena Gowda, Deputy General Counsel Leonard Benson, Chief Engineer

I. Call to Order

Mr. Gibbs called the meeting to order at 9:30 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 March 2017 was 271 MGD. There was 10 MG excess flow during this reporting period. Total precipitation was 3.2 inches for the month of March.

Mr. Tesfaye highlighted the Plant Influent Flow Trend graph noting that for any given month the influent flow is weather dependent, the 12-month rolling average influent flow of the Plant has remained at or below 300 MGD since February 2011. The Committee inquired as to who sets the permit limits corresponding to Plant performance. Mr. Tesfaye responded that the Environmental Protection Agency (EPA) sets all the Plant performance related permit limits.

Mr. Tesfaye noted that the enhanced nitrogen removal facility is performing well;

producing a total nitrogen (TN) concentration of 3.48 mg/l. The effluent quality is on track to remain below the NPDES permit annual load limit of 4,377,580 lbs. The Plant performance was excellent with 100% permit compliance. The Committee inquired if the amount of flow coming into the Plant influences the amount of total nitrogen present in the system. Mr. Tesfaye responded that plant influent flows and loads, including TN, vary seasonally and both flows and loads influence concentrations.

The CHP facility generated an average of 165 MWH/day, making up 26% of total energy consumed at Blue Plains (i.e., 642 MWH/day) while the average energy purchased from Pepco Energy Services (PES) was 477 MWH/day.

The Committee inquired if maintenance on the Heat Recovery Steam Generator is conducted annually. Mr. Tesfaye responded that the inspection is conducted on an annual basis. The Committee also commented on the upward trend of electricity use and inquired if this was considered typical for this time of year. Mr. Tesfaye replied flow, load and amount of solids processed were all factors influencing the amount of energy consumed by the Plant and that as a result, Winter and Spring months experience an increase in energy consumption.

Mr. Tesfaye briefly mentioned that DC Water staff is working closely with Maryland Department of the Environment (MDE) to obtain a letter of authorization for potential soil blenders, a requirement for their use of biosolids products. DC Water staff will be meeting with MDE to make a determination and develop a template for use by soil blenders. DC Water's application for the Virginia distribution and marketing permit was submitted and is under review by the Virginia Department of Environmental Quality (VA DEQ). Receipt of the final draft permit is expected by summer 2017.

The Committee inquired as to the progress of the Annamox based DEMON deammonification process facility. Mr. Tesfaye stated that the facility is expected to be online in June 2017. The Committee further inquired if the facility will be the largest facility of its type when commissioned and if DC Water would prepare a presentation to the Committee about the process facility in the near future. Mr. Tesfaye confirmed that the facility will be the largest of its kind in North America and also stated DC Water will prepare a presentation to the Committee.

III. SECURITY MEASURES

Mr. Steve Caldwell, Director, Security, DC Water, gave an update on DC Water's security measures and operations. Mr. Caldwell mentioned that at this time, there is no specific threat facing the Authority but that there were general threats faced by the Authority due to:

- National capital status
- Population size and growth
- DC Water's technology leadership
- DC Water's operational size (i.e., it operates the world's largest Advanced

Wastewater Treatment Plant)

- Tourism, visitors and businesses (i.e., more than 21million visitors per annum in the District
- and access control
- Property patrols, remote visits
- Process compliance and asset tracking & management

Mr. Caldwell next stated that DC Water's Security department liaises with multiple local and federal agencies and their security teams. In particular, he highlighted the coordination with the Water Information Sharing Analysis Center (WaterISAC), an FBI sponsored program that among other things, alerts participating members about utility related security incidents.

DC Water's Security operations all feed to its Physical Security Information Management (PSIM) program. The PSIM components generate data and feed the information to the DC Water Command Center. The Committee inquired if this system will be moving to the new headquarters. Mr. Caldwell replied that each location will have its own stand-alone security measures and that the PSIM will be located in Blue Plains.

Mr. Caldwell stated that due to the Authority's security measures that have been implemented, there has been increased reporting/detection of alleged workplace violence, property damage/loss, time card fraud, accidents & incidents, unsecured properties and breach events which led to better security management.

Mr. Caldwell summarized to the Committee three phases of security related projects that have and will be implemented in the future.

In conclusion, Mr. Caldwell outlined the long-term efforts planned as part of DC Water's Security Master Plan.

The Committee inquired if DC Water Security was being involved early on in the design process of facilities and infrastructure to attain maximum level of coordination and cooperation. Mr. Caldwell responded in the affirmative. The Committee further inquired how access to DC Water facilities was being controlled. Mr. Caldwell replied that although access control can be challenging due to the large number of contractor staff present in the Plant and the large number of turnover of contractor staff, DC Water Security works very closely with the contractors to obtain current list of their employees and continuously validates and updates their site clearance documentation. The Committee also inquired if DC Water's Security process is audited by an independent auditor. Mr. Caldwell replied that independent agencies contracted by DC Water conduct vulnerability assessments and audits of the system. The Committee requested a tour of the security facilities and command center.

IV. ACTION ITEMS

The Committee recommended seven joint-use and three non-joint use contracts for Board Approval.

JOINT USE

- 1. Contract No. 17-PR-DFM-02 Biosolids Building Roof Replacement, AN Exterior, Inc.
- 2. Contract No. 16-PR-DWT-13A Preliminary Treatment Facility Grit/Screening Hauling, Urban Services Systems Corp.
- 3. Contract No. 16-PR-DMS-43 Repair and Rehabilitation of Various Process Assets, Electric Motor and Contracting Co., Inc.
- 4. DCFA #463-WSA Construction Management Services, Anacostia River Combined Sewer Overflow (CSO) Control Projects, Division Z Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion, AECOM Services of DC
- 5. Contract No. #130060 Potomac Pumping Station Rehabilitation Phase III, American Contracting & Environmental Services
- 6. DCFA #485 Condition Assessment of Large Diameter Water Mains and Major Sewers, Pure Technologies, US Ltd
- 7. DCFA #490 Condition Assessment of Large Diameter Water Mains and Major Sewers, Arcadis District of Columbia, PC

NON JOINT USE

- 1. Contract No. 070110 Rehabilitation and Upgrade of the Fort Reno Pumping Station, CPP Construction Company
- 2. Contract No. 140160 Local Sewer Rehabilitation #1, SAK Construction LLC
- 3. Contract No. 150170 Small Diameter Water Main Cleaning and Lining 11C, J. Fletcher Creamer & Son, Inc.

V. WATER QUALITY MONITORING

Mr. Charles Kiely, Assistant General Manager for Customer Care and Operations, gave a brief update regarding water quality monitoring activities, specifically, regarding Total Coliform testing and Lead and Copper Rule (LCR) testing. Mr. Kiely mentioned that there was one positive test for Total Coliform in April and per regulation, further downstream tests were conducted to either corroborate or rule out the presence of the bacteria. Additional downstream tests conducted by DC Water revealed no other positives. In regards to LCR testing, Mr. Kiely mentioned that the laboratory has conducted tests on 31 samples of the 80 that have to be collected and that results show the corrosion control program is performing exceptionally well.

VI. OTHER BUSINESS/EMERGING ISSUES

Mr. George Hawkins, General Manager and CEO, DC Water, informed the Committee that DC Water will take to the Retail Rates Committee the issues concerning a private development and questions raised relating to the Water Service Replacement Fee (WSRF). The Committee inquired if it would be possible to schedule the meeting with the Retail Rates Committee sooner than later. Mr. Hawkins responded that staff will look at availabilities in the Committee calendar and schedule accordingly.

VII. ADJOURNMENT

Meeting adjourned at 11:18 a.m.

Follow-up Items

- 1. Assistant General Manager, Blue Plains. Prepare a presentation to the Committee about the DEMON Annamox process once the facility is commissioned.
- 2. General Manager, DC Water: Arrange a tour of security facilities and command center for Committee members.
- 3. Chief Procurement Officer, DC Water: Make arrangements to invite Committee members during presentations to the Governance Committee regarding performance of completed contracts.
- 4. General Manager, DC Water: Schedule meeting with the Retail Rates Committee to discuss potential modifications to the Water Service Replacement Fee structure.



DISTRICT OF COLUMBIAWATER AND SEWER AUTHORITY

BOARD OF DIRECTORS

Human Resources and Labor Relations
Committee
April 25th, 2017
4:00pm
(via conference call)

MEETING MINUTES

Committee Members Present

Bradley Frome, Chairman Ellen Boardman, Vice Chair Rachna Butani-Bhatt Anthony Giancola Matthew Brown, Chairman of the Board

DC Water Staff Present

Henderson Brown, General Counsel Linda R. Manley, Board Secretary

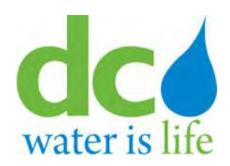
1. Call to Order

Chairman Bradley Frome called the meeting to order at 4:02 p.m.

2. Executive Session

Mr. Frome requested a motion to move into Executive Session to discuss personnel matters pursuant to D.C. Official Code Section 2-575(b)(10). Ms. Manley conducted a roll call and the Committee convened into an Executive Session at 4:03 p.m.

The Committee reconvened into open session and adjourned at 5:05 p.m.



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Board of Directors

Audit Committee

Thursday, April 27, 2017

9:30 a.m.

Meeting Minutes

COMMITTEE MEMBERS PRESENT

Nicholas Majett, Chairman
Matthew Brown, Board Chairman
Elisabeth Feldt, Committee Member
Bonnie Kirkland, Committee Member
Sarah Motsch, Committee Member
Howard Gibbs, Committee Member
Rachna Butani Bhatt, Committee Member

INTERNAL AUDIT STAFF PRESENT

Dan Whelan, RSM US LLP Jill Reyes, RSM US LLP Kelly Johnson, RSM US LLP Matthew Blondell, RSM US LLP Vanita Kataria, RSM US LLP Charles Barley, RSM US LLP

DC WATER STAFF PRESENT

Henderson Brown, General Counsel Biju George, Chief Operating Officer Korey Gray, Contract Compliance Officer Bob Hunt, Director Finance Anthony Mack, Director, Wastewater Treatment Maintenance Linda Manley, Board Secretary

Call to Order (Item 1)

Mr. Nicholas Majett called the Audit Committee meeting to order at 9:31am.

Internal Audit Update (Item 2)

RSM Partner, Dan Whelan, presented the FY 2017 internal audit plan status update. Mr. Majett noted that Board Member Mr. Anthony Giancola could not attend this meeting but had submitted questions. Mr. Majett stated he would provide these questions to the Internal Auditors for response.

Ms. Kelly Johnson presented the status of prior audit findings. For audit findings prior to FY 2015, there are 5 action deferred items, 6 items still open, and 1 item that is closed. For audit findings in FY 2015, there is only 1 action deferred item, 3 open items, 8 items pending testing, and 62 items that are closed. Ms. Johnson noted that all action deferred items were policies that are pending union approval. For FY 2016 audit findings, there are 25 open items, 16 items pending testing, and 9 items that are closed. Ms. Johnson noted that annual budget and planning was not on the list, as the report would be presented later in the meeting.

Ms. Johnson also presented an update on the COR/COTR training and compliance monitoring implementation by management per the Contract Monitoring & Compliance Audit Part II findings. These findings were presented to the Committee in previous Committee meetings, and it was requested to have periodic updates on the management action plan. Ms. Johnson explained that management has decided to develop in-house training for CORs and COTRs. This will be finalized by the end April. These trainings will be ongoing, and will happen quarterly. As these trainings continue, Management will determine if the frequency needs to be increased or decreased on a case by case basis. Ms. Johnson added that Phase III has begun, and a vendor performance management application was selected on March 31. Implementation of the application is to begin in April, with a target completion by the end of September.

Mrs. Jill Reyes followed with the presentation of the Annual Budgeting and Planning Internal Audit Report. The scope of the internal audit was to evaluate the effectiveness of budget monitoring techniques, and to analyze budget trends for different departments. Mrs. Reyes noted that RSM attended and observed the budget development meetings between March 2016 and December 2016. Ms. Reyes also presented the operating revenue and expenditures budgeted vs actuals for FY 2013 – FY 2015. The actual operating revenue for all three years fell within 2% of what was budgeted, and the actual operating expenses were 7 – 13% lower than budgeted expenditures for all three years. The internal audit resulted in one reportable observation of moderate risk. The observation is lack of an automated budget tool. Internal Audit recommended that the budget tool be considered as part of the upgrade or replacement of DC Water's Enterprise Resource Planning (ERP) system. Management has begun planning for the implementation. Mr. Biju George confirmed upon inquiry that the ERP system would include both operating and capital budgets.

Ms. Johnson provided a progress report on the Automated Meter Reading (AMR) Implementation. This project consists of two phases: Phase I consists of the project initiation and business process review, and Phase II consists of an IT Design and implementation review. The Internal Audit for Phase I includes evaluating the program implementation plan and meter installation process, assessing the inventory management process and controls implemented by the installation vendor, assessing the meter disposal process and controls, review billing adjustments for customers with new

meters, and providing timely recommendations regarding overall project risk management. Chairman Brown asked for further explanation of the billing adjustments. Mr. George stated that he would provide the committee a copy of the billing adjustment process. At the time of the meeting, the project was in week 12 of the implementation. Ms. Johnson communicated that the plan was to have 9,500 total installs by week 12, but to date there are 6,725. Due to weather implications, the actual number of installs has been lower than the planned. There are 83,861 installs remaining. Ms. Johnson also stated that should would provide additional information regarding the total planned installs and remaining installs that were reported. s. Next steps include completing Phase I and completing testing around disposals. Initial stages of Phase II have begun as the IT Internal Audit team has performed some walkthrough meetings with Management.

Mr. Matthew Blondell presented the Department of Maintenance Services Work Order Management Internal Audit. The scope of the internal audit was to obtain an understanding of the Work Order Management process, including the policies and procedures in place; determining the design effectiveness of the controls identified; and to evaluate the use of the Maximo Computerized Maintenance Management System. The Internal Audit presented the high risk observation, noting there are 3 moderate risk observations in the full report. The high risk observation is in regards to the documented supervisory review of work orders within Maximo. Mr. Blondell stated that review of preventative maintenance work orders are not being documented within Maximo. Mr. Anthony Mack, Director, Wastewater Treatment Maintenance, informed the Board that preventative maintenance work orders typically are documented on paper, so approvals and flow of the work orders were not represented in Maximo. Management is redesigning the process in order to resolve the issue. Ms. Sarah Motsch requested a breakdown of preventative, predictive and corrective maintenance by plant area. Mr. Mack stated he would provide this information in coordination with the Internal Auditors.

Mrs. Reyes and Ms. Vanita Kataria presented the Purchasing Card (P-Card) Internal Audit. The scope of the internal audit was to review the Authority's policies and procedures, including internal controls over P-Cards and Travel Cards; evaluate the adequacy of program administration and oversight evaluate the appropriateness of P-Card purchases, as well as perform analytical procedures surrounding transactions; and to identify process improvement opportunities and recommend internal control enhancements to improve overall P-Card and Travel Card programs. There are currently 75 P-Card holders, 33 Travel Card holders, and P-Cards accounted for approximately \$1.8 million in FY 2016, which was less than 1% of the Authority's overall operating expenditures. There are 6 Travel Card holders that are not P-Card holders. Despite such a low percentage of the operating expenditures, this is still considered a high-risk area since certain employees are able to make purchases on behalf of the Authority. The average dollar amount per transaction is \$175, and most (54 of 75) cards have a \$2,000 single transaction limit, and \$5,000 monthly spending limit.

Internal Audit presented the two high risk reportable observations, noting there are 2 moderate and 2 low risk observations in the full report. The first high risk observation included missing reconciliations and late reconciliation submissions by P-Card holders. Internal Audit found 8 of the 65 sample reconciliations were missing, and believes that the reconciliations were completed, but were lost from either filing or refiling the reconciliations. Management's action plan includes electronically storing reconciliations, and enforcing penalties to P-Card holders that submit late reconciliations. The second high risk observation is due to a lack of oversight and monitoring of Travel Card purchases. The resolution to this observation includes an updated policy and monitoring similar to the P-Card process.

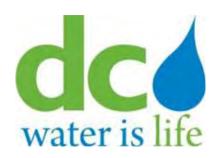
Mrs. Reyes provided an update on the Hotline. She informed the Board that since the February 2017 Audit Committee meeting, 14 calls have been made. Of those 14 calls, 4 of them have been fraud claims. Of the 4 fraud claims, 2 have been closed, and the 2 still open pertain to the same issue. There are currently 11 open cases, several of which are for the same or similar issues.

Executive Session (Item 3)

There was a motion to move into Executive Session by Chairman Majett to discuss legal, confidential, and privileged matters pursuant to Section 2-575(b)(1) of the D.C. Official Code. It was so moved and seconded and motion carried. The room was cleared of non-Executive members and all public individuals. The Audit Committee went into Executive Section at approximately 10:16 AM.

Adjournment (Item 4)

The Audit Committee meeting adjourned at 10:45am.



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY Board of Directors

Finance and Budget Committee

Thursday, April 27, 2017

11:00 a.m.

MEETING MINUTES

Committee Members

Matthew Brown, Board Chairman Adam Ortiz Howard Gibbs Sarah Motsch Ana Harvey

DC Water Staff

George Hawkins, CEO & General Manager Henderson Brown, General Counsel Robert Hunt, Chief Financial Officer (Acting) Lola Oyeyemi, Director, Budget Linda Manley, Secretary to the Board Syed Khalil, Director, Rates and Revenue

> Public Financial Management (PFM) Christopher Lover, Managing Director

Call to Order

Chairman Matt Brown called the meeting to order at 11:10 a.m.

March 2016 Financial Report

Ms. Lola Oyeyemi, Director Budget, reported that with 50 percent of the fiscal year completed, financials are on track with budgetary expectations and targeted performance metrics. Total operating revenues are at \$301.4 million or 50.6 percent of budget, operating expenses at \$234.6 million or 44 percent of budget and capital disbursements at \$253.6 million or 50 percent of budget in the respective categories.

As part of the financial highlights, Ms. Oyeyemi stated that staff completed the FY 2016 Inter-Municipal Agreement (IMA) with \$728K net refund to the Authority. She explained that the net refund was separate from the approximately \$10 million that was offered as a credit to wholesale customers' bill in FY 2016, which was mainly due to the performance of the digesters. She informed the Committee of the FY 2017 preliminary year-end projections and FY 2019 Budget Kickoff anticipated in May.

Mr. Matt Brown, Board Chairman, inquired as to why capital labor is trending lower at just 37 percent of budget. Ms. Oyeyemi responded that most of the significant capital projects related to the digester were completed in FY 2016, therefore, we are seeing a downward trend in capital labor costs. She also explained that an uptick is anticipated during the latter part of the year for

the Automated Meter Reading (AMR) replacement program and the Customer Information System (eCIS) project.

Chairman Brown inquired why there was no expenditure to date for the Cash Financed Capital Improvement (CFCI). Ms. Oyeyemi and Mr. George Hawkins, CEO & General Manager, explained that the CFCI serves a dual purpose of tighter budgeting with the flexibility of reprogramming funds for emergency purposes within the authorized budget, and support of PAYGO financing for the capital improvement program (CIP).

Mr. Brown also questioned why the Clean Rivers Impervious Area Charge (CRIAC) receipts are slightly higher as compared to budget. Mr. Syed Khalil, Director of Rates and Revenue, explained that the higher receipts to date for residential, commercial and multi-family customers are on account of slightly higher Clean Rivers Impervious Area Charge (CRIAC). He added that the higher receipts are also partly due to updated impervious area flyover data, which was incorporated in the eCIS system in August 2016. He further stated that the full impact of the flyover will not be known until the end the year. Chairman Brown asked that a detailed follow-up presentation on the Impervious Area Charge (IAC) be prepared for the appropriate committee's review.

Mr. Robert Hunt, Chief Financial Officer (Acting), provided an overview of the cash balances and investments noting that the operating reserve balance of \$149.1 million was well above the targeted reserve level of \$125.5 million.

Update on Letter of Credit for Series 2014 B1 & B2 Bonds

Mr. Hunt provided an overview of the 2014 B1 and B2 bonds in the amount of \$100 million which were issued in a variable rate mode and required a letter of credit issued by TD Bank to provide the liquidity for the bonds if needed. He noted that the bonds mature each week and at maturity if not re-sold to other investors, DC Water would need to pay the investors \$100 million. The current letter of credit was for three years and expires July 23, 2017.

Mr. Christopher Lover, Managing Director, Public Financial Management (PFM) and DC Water's financial advisor, made a presentation to the Committee on the available options and benefits of renewal versus replacement of the letter of credit with TD Bank. He outlined management's recommendation that DC Water renew the current letter of credit with TD Bank at a very attractive rate of 28 basis points (fee of approximately \$280K annually).

Action Item

The Committee agreed to recommend the letter of credit renewal to the Board for approval.

<u>Adjournment</u>

Hearing no further business, Chairman Brown adjourned the meeting at 11:34 a.m.

Follow-up Items

1. Prepare more in depth review of the Impervious Area Charge (IAC) to the DC Retail Water & Sewer Rates Committee (Chairman Brown).



George S. Hawkins - May 2017

Table of Contents

Message from the CEO/GM	
Organizational Performance Dashboard	i
Financial Highlights	1
Financial Performance Summary	
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	g
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

Red Did not meet Target

ow Missed Target but within acceptable range

Green Met/Exceeded Target
Gray Budget/Target Value

<transparent> Green/Yellow/Red based on comparison

May GM Report

Greetings to the Board. Spring seems to have jumped directly to summer just in the last week – but we are hopeful that rains will continue to keep everything growing and many May flowers on the way.

Board Agenda

After conversations with Chair Matt Brown, we are unveiling at the May Board meeting a new element of the Board Agenda – which is a short 10-15 minute informational presentation on an issue that is of interest to the entire Board. Similar to most Boards, the work of the Board is done within the Committees, with recommendations for action items coming from the Committees to the Board. This process ensures that all issues have been reviewed in detail in the Committee structure before an action is considered by the full Board. Board meetings, therefore, are devoted to reports from the Committees, and relatively expeditious reviews of action items that have already been vetted. Although there is often discussion before the Board takes action, by design the in-depth analysis and discussion is focused at the Committee level. There are two practical outcomes of this process. The first is that as the enterprise has become disciplined about doing the work at the Committee level, the Board meetings have become much shorter in duration. (This is a merciful change from when I was a Board member in 2007-9, when Board meetings often went on for 2 and sometimes 3 or 4 hours). The second, though, is that some issues that are of general interest to the Board have been discussed at a Committee, but not at the Board meeting itself.

Chairman Brown suggested that we could build on both these attributes by considering for the agenda each month a topic of general interest to the Board for an informational presentation – not for action – so that every Board member could hear more about a relevant topic. These presentations would be separate from the GM's report and likely delivered by key DC Water staff – which has the benefit of exposing the Board to a wider range of the senior management staff of the enterprise. The thought is that this addition to the Agenda would be optional at each meeting, and might be deferred if the pre-existing agenda items are likely to engender a longer meeting. Topics that are likely to be included in this segment are: general Blue Drop update (this month, see below!); review of high likelihood/high consequence of sewer failure (slated for June); general goods and services or capital procurement procedures or the DC Water Works workforce program.

I appreciate Chairman Brown's innovative idea and am fully behind the proposal. We look forward to providing these updates – and the follow-up discussions that are likely in the Committees – in the months ahead.

Blue Drop and ART

DC Water staff has updated the Board at the last two Board retreats on three potential avenues for increasing non-ratepayer revenue: 1) expanded use of existing unused treatment capacity; 2) Intellectual property – both licensing and potentially paired with ongoing service support, developed through our Advancing Research and Technology office; and 3) peer-to-peer consulting to other water utilities on areas where DC Water has expertise under a business approach called "Blue Drop."

The first avenue is clearly an opportunity that exists within DC Water's current structure and is associated with renting unused capacity at Blue Plains (and maybe the Washington Aqueduct) to potential parties. Any development in this area will be vetted through the Environmental Quality and Operations Committee and may engage the IMA (Intermunicipal Agreement) process that manages allocation of costs between all the retail and wholesale customers of Blue Plains.

The two remaining avenues – IP/Advancing Research and Technology (ART) and Blue Drop (BD) – have engendered significant interest by the Board, which at least in my perception, supports the tremendous potential for new revenue, but is also keenly concerned about new potential liabilities and that these opportunities not "distract" DC Water personnel from their core responsibilities. A group of Board members visited me after the last Retreat to express these sentiments and I pledged a follow-up discussion and focus with the Board to elevate our collective awareness of what is and could happen, and to gain guidance. Chairman Brown highlighted that oversight of these two areas of new revenue would be overseen by the Governance Committee, and both he and the Chair of that Committee, Ellen Boardman, as well as other members of the Board, were expecting relevant presentations and discussions early this year. Our delay in providing these presentations rests with me, which I deeply regret. On the other hand, we are committed to remedying this error by initiating robust engagement in the weeks and months ahead.

The plan is for me to present a general update on BD as the first edition of the General Briefing item to be added to the Board meeting agenda (see the first point above.) I summarize the briefing in the next paragraph. We are inviting all interested Board members to the Governance Committee on May 10 at 9:30, where we will present a more in-depth discussion and update on BD. The plan is to provide an indepth discussion on IP/ART at the Governance Committee meeting in July. We also initiated last month and will continue written updates on BD activity in the GM's Report each month. Alan Heymann is the president of BD in addition to serving as DC Water's Chief Marketing Officer. His update on BD is included below as well.

For BD, the DC Water Board approved the formation of Blue Drop as an independent affiliate of DC Water at the November 3, 2016 Board meeting. Subsequently, we formed BD as a **nonprofit** limited liability company under the laws of the District of Columbia with DC Water as the only member, and as the member, the only entity able to change its corporate structure, modify its business purpose, or allow any additional members. DC Water appointed me as the Member Representative to provide direction to the Board of BD, which I also appoint. We have appointed the Board of BD and have held our first meeting, at which point the Board approved Bylaws and a series of personnel and contract items associated with establishing BD and getting our first clients in the fold. Our plan is to make these documents available to the DC Water Board on the Board Books portal.

I have appointed four voting members of the Board: Willy Walker (Chair and CEO of Walker & Dunlop, past Chair, DC Water), Robert Mallett (CEO, Africare, past Board member DC Water, past City Administrator, District of Columbia), David Henderson (Managing Partner, XPV Water Partners, a private equity firm that exclusively invests in water technology companies), and Andy Kricun (General Manager and Chief Engineer, Camden County Municipal Utilities Authority.) We are actively vetting a fifth member of the Board and hope to add small business perspective and some additional diversity. We also negotiated for BD to take over space that DC Water had already leased and paid for to house its now-closed business center on 810 First Street, NE. (This space was sitting empty) BD, at minimal cost, has been able to repurpose this space and will be housed there until the lease expires in late 2018.

We will clarify at the Governance Committee meeting the activities that have been undertaken by BD and the exciting prospects that are ahead. We will also clarify that BD is exclusively generating revenue from two sources: the marketing of Bloom Soil (our biosolid product) and peer-to-peer consulting services. Importantly, General Counsel Henderson Brown will also outline the legal structure and provide guidelines for DC Water's Board oversight of BD. In short, there is no limit to the information

that the Board can and should review – which we will propose be done at every other Governance Committee meeting and in every monthly GM Report. The difference is that the DC Water Board will not be in the approval process for business opportunities or contracts that BD is able to generate – except in the strategic sense of providing clarity on the business purpose of BD as the business unfolds.

For ART and Intellectual Property, the concern is associated with the potential liability that DC Water may shoulder in contracts with other entities, both in the United States and abroad, associated with IP we have helped develop, or more directly, with services we offer bundled with that IP. In general, there is both limited liability and limited revenue that stems from licensing IP that is adopted by an independent firm and used in their services to a client (the private firm takes the risk, and also receives most of the revenue), and more revenue and potential liability with offering our own services in connection with the IP (DC Water personnel providing direct design, operations and maintenance advice for facilities built based in whole or part on our IP.)

The Board seeks more information on both avenues of revenue generation, but is mostly concerned with contracts, particularly abroad, where DC Water personnel are also providing services directly to a customer. I have put any further contracts of this nature on hold until we have reviewed the issues further with the Board. (We have one in place with a US Company that is doing work in China – which was discussed briefly at the Retreat and triggered much of the concern.) We will provide a thorough review of issues pertaining to these efforts at the July Governance Committee meeting. This work is firmly housed within DC Water in the ART program, so is fully within the normal oversight powers of the Board and its Committees.

Finally, we are hosting a second meeting of the BD Board on Friday, May 5. There are no actions items on the agenda for that day – we are planning a discussion on business planning for BD. Because we may not call the BD Board together again until late Summer or Fall, we thought to invite DC Water Board members to visit the BD offices on 801 First Street, NE (our old business center – you will see the bullet proof glass that is still up from when we had tellers there) and to meet the BD Board members and staff. Once again, I regret this open house has been scheduled before the briefing that we will offer at the Governance Committee on May 10 – but felt on balance that this was an opportunity that was timely and beneficial to both Boards. We will be delighted to see you at the BD offices on the Friday after the DC Water Board meeting. The open house is scheduled for 2:30 to 4:30 p.m. If you need support with transportation or parking, please let me know.

Blue Drop

Blue Drop is wrapping up its first consulting engagement in New Jersey and began a new project last month in Harrisburg, Pennsylvania. The client is Capital Region Water, a utility similar to DC Water in many respects (capital city, water and wastewater, retail and wholesale customers) but much smaller in scale. Blue Drop will offer DC Water's expertise to CRW in communications strategy and customer service best practices. CRW is Blue Drop's third paying consulting client.

For March, Blue Drop invoiced customers for 748 tons of Bloom and delivered truck-sized samples to several potential customers, with revenue of more than \$2,500 and roughly \$25,000 in avoided land application costs to DC Water.

Blue Drop is excited to bring on its first two employees, a Director of Operations and a Director of Client Services in June. Both are excited to be joining our startup venture and look forward to introducing

themselves at a future Board meeting. We will save their introduction for a later date, because as of this writing, they had not both given notice to their current employers.

External Affairs

Website

Session totals for the period of March 16 through April 15, 2017

• Total Sessions: 66,082

• New Sessions: 35,631 (53.92%)

Government Relations

To coincide with the Congressional recess, we invited key staff from the Senate Appropriations and Environment and Public Works committees to visit the Clean Rivers project site at Poplar Point. These tours were very well attended and a great opportunity to share our message with important stakeholders.

In addition, we worked with NACWA on a tour for House staff at Blue Plains and addressed nearly 30 staff on our work, mission and priorities.

In honor of Earth Day and to mark the 1 year anniversary since the roll out of Bloom, the government affairs team provided Mayor Bowser and the DC Council with packages of Bloom planting material and gave an overview on the progress to date in marketing it.

Media Relations

OEA responded to media inquiries about high water bills, main breaks and the UDC/co-op water usage/high water bill issue.

Press Releases

- March 24: DC Water and Xylem will unveil the world's first intelligent wastewater pumping system
- March 22: Traffic Advisory Modified Traffic Closure on Oregon Avenue, NW
- March 20: Traffic Advisory Canal Road, NW and Foxhall Road, NW
- March 20: Spring Cleaning For DC Water Pipes Begins March 20

Media Coverage

- Water gushes into Yellow Line tunnel
 - (WTOP / March 17, 2017)
- <u>DC Water And Xylem Celebrate The Installation Of The First Intelligent Wastewater Pumping</u> System In North America

(Water Online / March 24, 2017)

- <u>D.C.</u> wants to train residents for jobs with Pepco and other utilities
 (Washington Business Journal / April 4, 2017)
- CH2M-designed DC Water Blue Plains Tunnel named Overall Best of the Best Project for 2016 by ENR

(Military-Technology.net / April 11, 2017)

Meetings/Presentations/Events

• DC Water successfully conducted its annual series of formal briefings to District Councilmembers to provide important information on ongoing and future construction projects impacting their

- respective wards. DC Water conducted its seventh briefing to Ward 6 Councilmember Charles Allen and members of his key staff.
- In support of its Saint Elizabeths Water Storage Tower and Transmission Mains project, DC
 Water is embarking on a very aggressive outreach campaign to educate the affected
 communities across Ward 8 about the project's short-term impacts and long-term benefits,
 mainly increased water pressure in areas, where needed. As part of this outreach campaign, DC
 Water attended the Anacostia Business Improvement District's Annual Stakeholders Meeting to
 provide a detailed presentation on the project.
- In support of its Small Diameter Water Main Replacement Project occurring on Columbia Road, NW, and Irving, Harvard, Girard, Fairmont and Clifton Streets, NW, DC Water attended a special meeting of ANC 1A's Transportation Committee to discuss the transportation and parking impacts presented by this project in conjunction with other area projects. As a possible mitigation to the anticipated local parking impact, ANC 1A has drafted a resolution to make an appeal to DC USA for the availability of alternative parking within the DC USA facility during construction of DC Water's project. DC Water is coordinating with ANC 1A and Executive Office of the Mayor on the scheduling of a conference call or in-person meeting with DC USA to officially request the alternative parking for local area residents.
- At the request of the Eastland Gardens Civic Association, DC Water attended its monthly
 meeting to provide a general discussion on the following topics: Recent spikes in billing;
 breakdown of billing charges; and discussion on any existing lead services serving homes
 throughout the local area. Following this successful discussion, DC Water Customer Service has
 received an extensive list of individual billing concerns, all of which have been researched and
 customers contacted with our findings.
- In celebration of this year's Water Week in Washington, DC, Wendy joined the National
 Association of Clean Water Agencies and an array of water sector association partners from
 around the country, along with members of Congress and EPA officials for the "Rally of Water"
 at Upper Senate Park.
- As an innovative educational outreach tool, DC Water conducted a Facebook Live Environmental Lesson Brookland Middle School. Approximately 63 students from 6th grade participated in a hands-on, interactive lesson on how wastewater is cleaned.
- DC Water provided a briefing on its Georgetown Combined Sewer Rehabilitation Project to
 Councilmember Jack Evans. Among a number of hot button topics related to this project, the
 following were covered: Schedule for manhole access; prescribed working hours in front of Café
 Milano, if manhole access is needed; special care of the bricks that will be temporarily removed
 from the 3300 block of O Street NW during the sewer repair/excavation.
- In support of its Spring Valley Water Main Upgrade Project, DC Water has been providing
 extensive outreach to American University throughout recent weeks to ensure proper
 coordination of this project with the University's own major renovation project. As part of these
 coordination efforts, DC Water hosted the University team here at Blue Plains for the third in a
 series of meetings to discuss construction activities under our project.
- DC Water has also been providing extensive outreach to community stakeholders in preparation for construction of its Northeast Boundary Tunnel Project. As part of these ongoing outreach

- efforts, DC Water hosted an informal coffee discussion at Big Bear Café in the Bloomingdale neighborhood with ANCs 5C, 5D and 5E and local civic associations to discuss topics such as preconstruction surveys.
- DC Water attended the April monthly meeting of ANC 3D to provide updates on its Spring Valley Water Main Upgrade Project, and also to present its Small Diameter Water Main Replacement Project which will be taking place along Potomac Avenue, NW.
- DC Water conducted the second of its Facebook Live Environmental Lessons.
- DC Water attended the April monthly meeting of ANC 1B to present its Small Diameter Water Main Replacement Project occurring on Columbia Road, NW, and Irving, Harvard, Girard, Fairmont and Clifton Streets, NW.
- DC Water attended a meeting with ANC 3G to discuss its Oregon Avenue Sewer Rehabilitation Project. More specifically, there was conversation about ways in which traffic signage can be improved throughout the remainder of the work.
- DC Water provided giveaways during the First Baptist Church of Deanwood's 2017 Health Fair Expo.
- Each year, DC Water participates in a wide number of events sponsored by region wide agencies and organizations in celebration of Earth Month. These events are effective in not only showing DC Water's support for these various cleanup efforts along the Potomac and Anacostia riversheds, but also in conveying the fact that DC Water and its Ambassador, Wendy, are major stewards of the environment as well. In light of this, Wendy stopped by the Alice Ferguson Foundation's Cleanup event at Noyes Park to greet the cleanup crew and even pick up a broom, wheelbarrow and shovel to assist in these efforts!
- In showing its ongoing support to 11th Street Bridge Park, DC Water attended this organization's 3rd Annual Anacostia River Festival, providing its Quench Buggy and water bottles, among other giveaways and activities.
- DC Water attended the April monthly meeting of ANC 1A as a follow up to its presentation during the March meeting of the ANC's Transportation Committee. During this meeting, DC Water provided a detailed schedule of work at each street within the project area, to the ANC's appreciation, satisfaction, and high praise!
- DC Water attended the April monthly meeting of ANC 2B to present its Small Diameter Water Main Replacement Project occurring along 18th Street, NW.
- DC Water has participated in a series of meetings with the Georgetown Business Improvement
 District and members of ANC 2E to discuss its Georgetown Combined Sewer Rehabilitation
 Project. During the 4/13 meeting, updates on the following topics were provided: Schedule for
 manhole access; prescribed working hours in front of Café Milano, if manhole access is needed;
 special care of the bricks that will be temporarily removed from the 3300 block of O Street NW
 during the sewer repair/excavation.

Customer Newsletter

The April customer newsletter was the consent decree-mandated Clean Rivers Project News with articles about the ENR "Best of the Best" Award, the downspout disconnection program, Nannie's

completion and an article on the national GI certification graduates. It also included the mandated FAQ page.

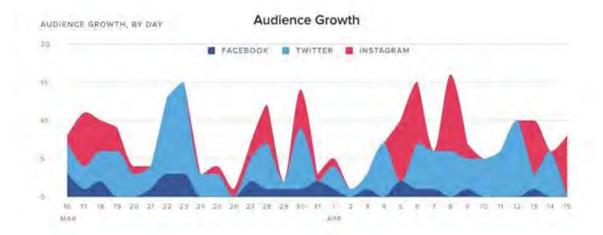
Tours

- 21 students from the McClean School
- 10 citizens from Resolve, Inc.
- 25 students from Georgetown Visitation Prep
- 15 students from George Washington School of Public Health
- 12 property managers from the Lenkin Company

Social Media

Stats by Profile/Page

PellerPs	9#	Total Fans / Followers	Fan / Forover increase	Messagan Sert	Impressions	Impressions per Posts	Engagements	Engagements per Pest	Cicks
dc	DC Water	2,499	0.93%	22	51,111	2,323	755	34.3	44
dc	DC Water mydcwater	1,101	5.66%	14	14	1-	1,062	75.9	-
•	DC Water	14,603	0.86%	247	172,605	699	8,752	35.4	223



AUDIENCE GROWTH METRICS	TOTAL	CHANGE
Total Fans	18,203	- 1.1%
New Facebook Fans	26	₹ 25.7%
New Twitter Followers	124	2.5%
New instagram Followers	59	▲ 22.9%
Total Fans Galned	209	▲ 2.5%

Total fans increased by

1.1%
since previous date range

Engagements

ENDAGEMENT METRICS	FOTALS	CHANGE
Facebook Engagements	755	▲ 273.8%
Twitter Engagements	8.752	▲ 89.8 %
Instagram Engagements	1,062	▲ 76.4%
Total Engagements	10,569	- 95,1%

The number of engagements increased by

- 95.1%

since previous date range

ORGANIZATIONAL PERFORMANCE DASHBOARD (MARCH, 2017)

Financial Highlights









Customer Care and Operations Highlights



Call Center Performance





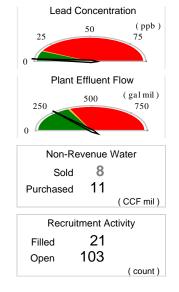


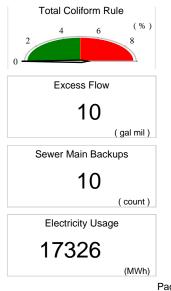
Low Income Assistance Program



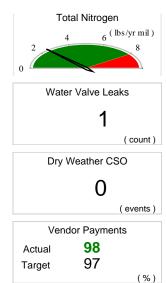
Customer Assistance Program
Previous 72
Current 298
(\$ tho)

Operational Highlights



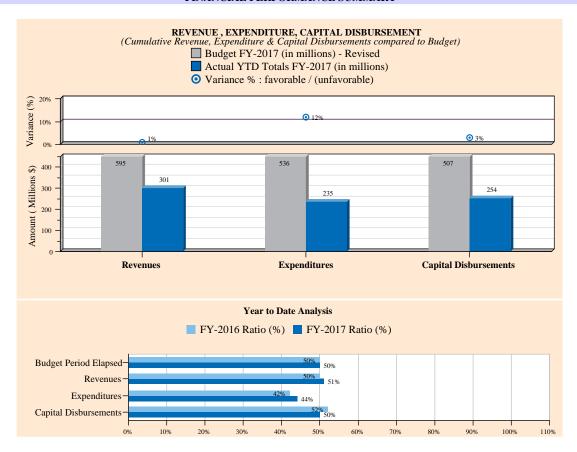


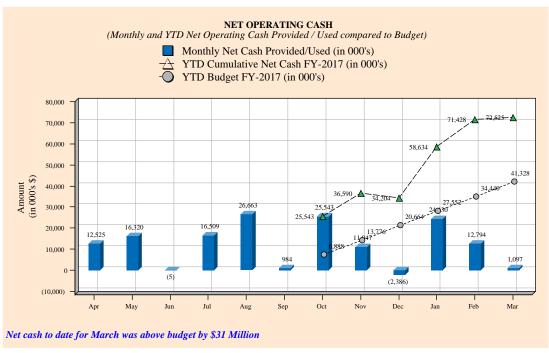




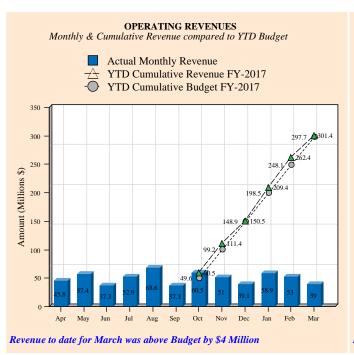
Page i

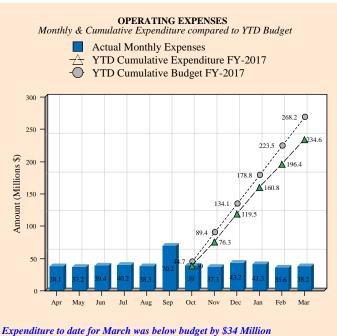
FINANCIAL PERFORMANCE SUMMARY



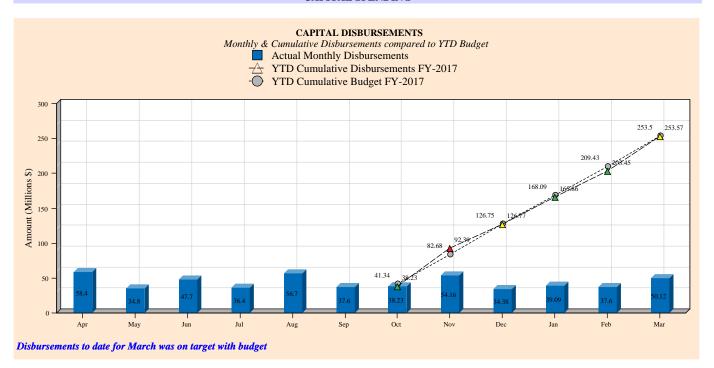


REVENUES AND OPERATING EXPENSES

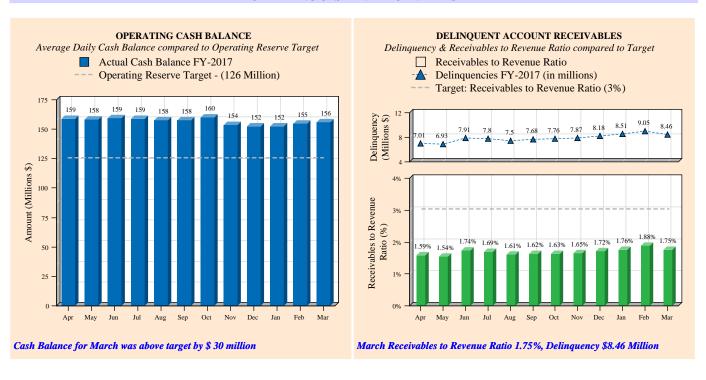




CAPITAL SPENDING



OPERATING CASH AND RECEIVABLES



INVESTMENT EARNINGS



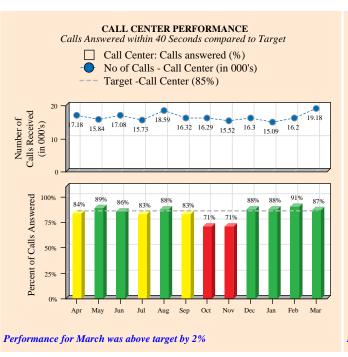
INVESTMENT YIELD

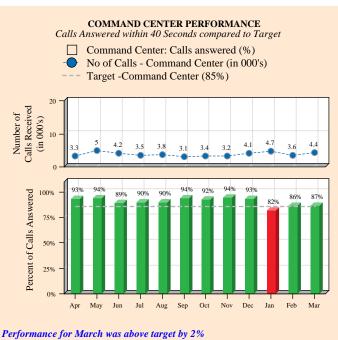


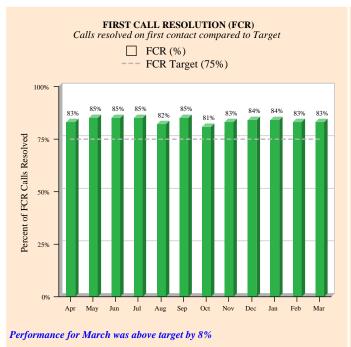


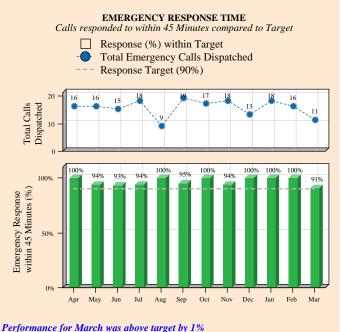
CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

CUSTOMER SERVICE





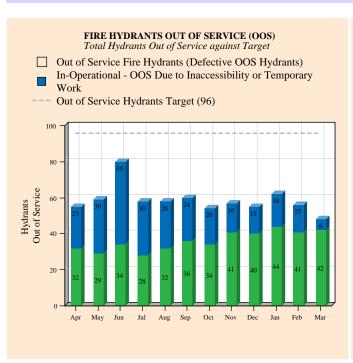


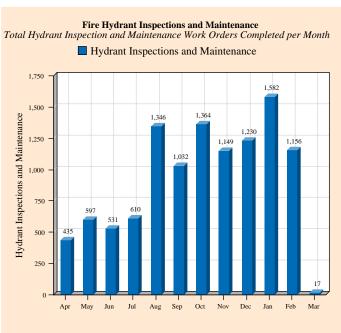


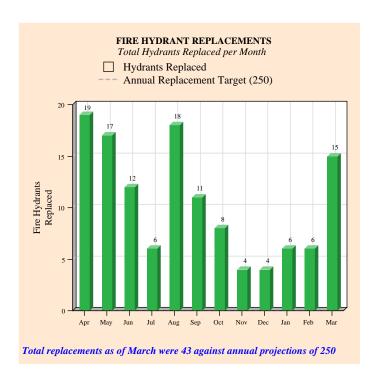
Page 5

CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

FIRE HYDRANTS

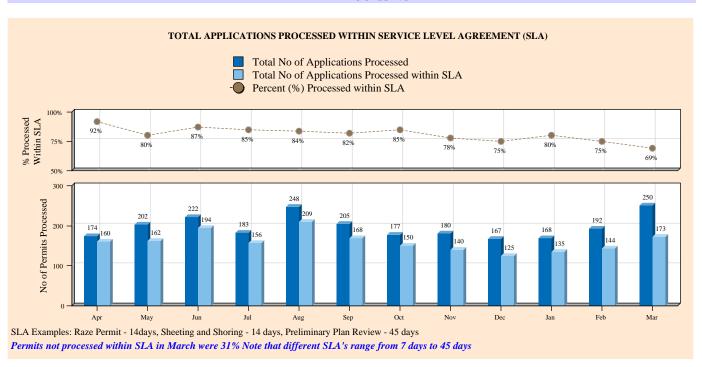






CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

PERMIT PROCESSING

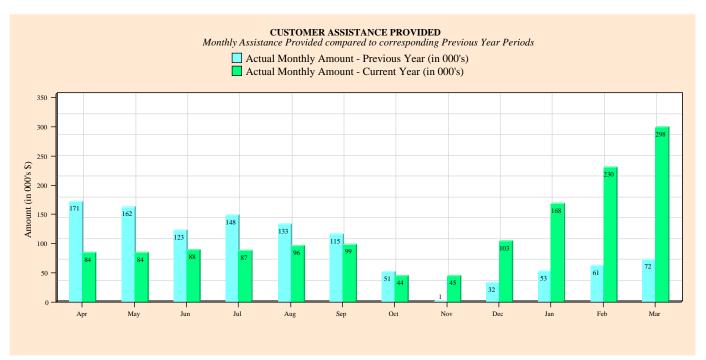


LOW INCOME ASSISTANCE PROGRAM

SPLASH PROGRAM



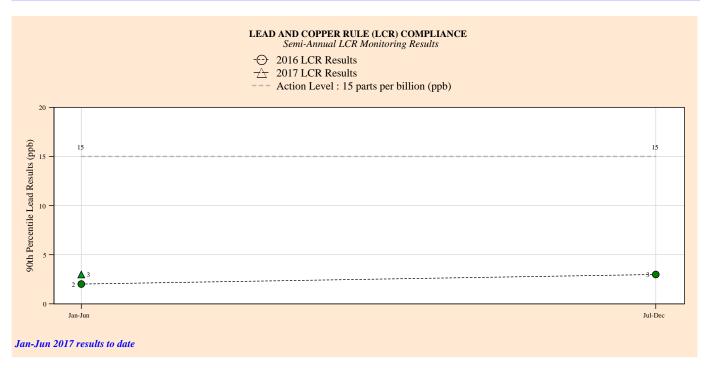
CUSTOMER ASSISTANCE PROGRAM (CAP)

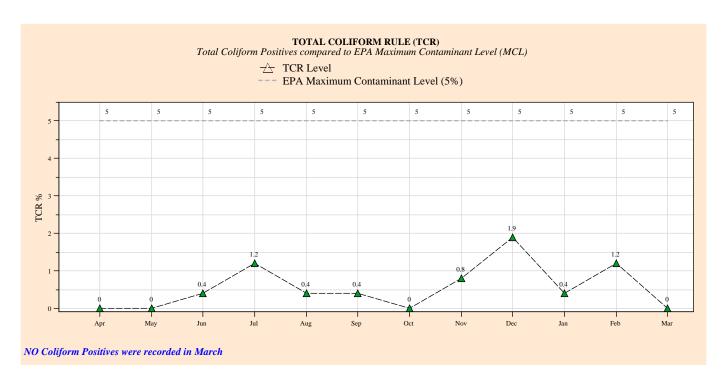


Page 8

OPERATIONAL HIGHLIGHTS

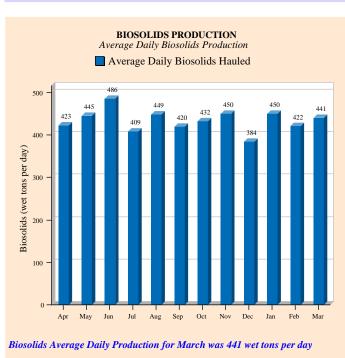
DRINKING WATER QUALITY

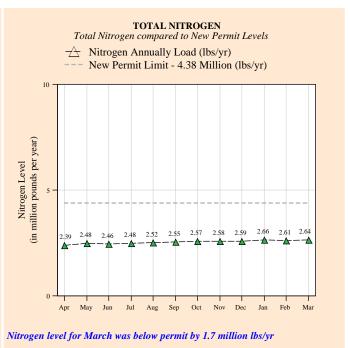


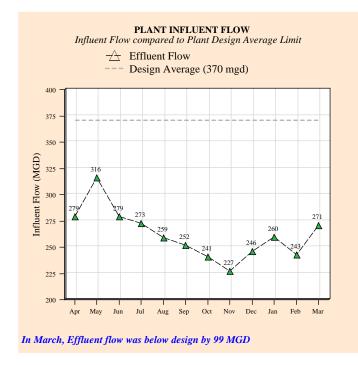


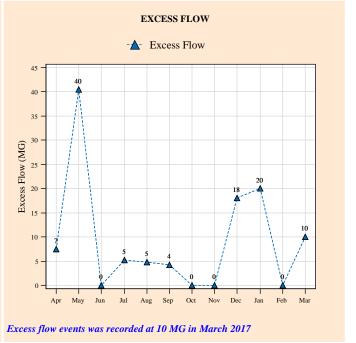
OPERATIONAL HIGHLIGHTS

WASTEWATER TREATMENT





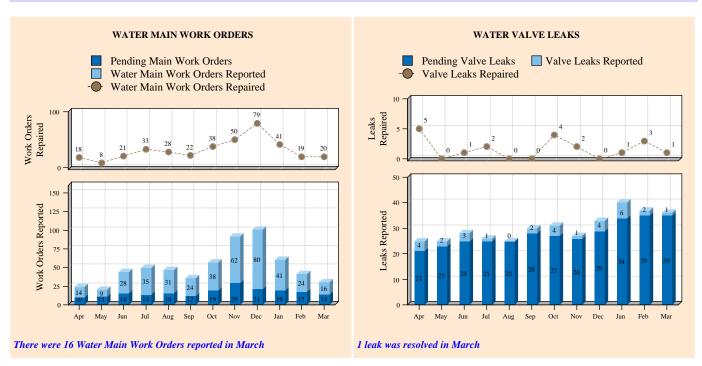




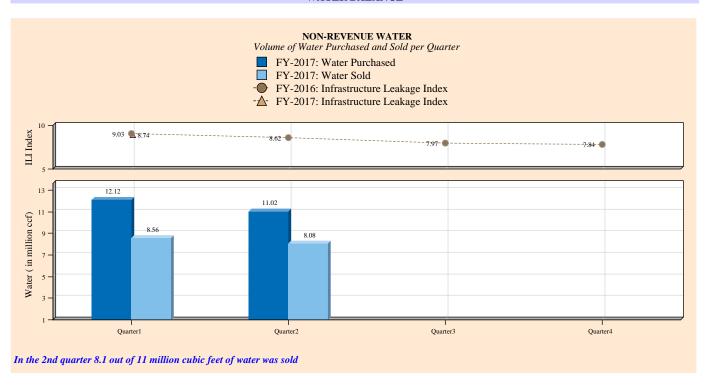
Page 10

OPERATIONAL HIGHLIGHTS

WATER DISTRIBUTION OPERATIONS

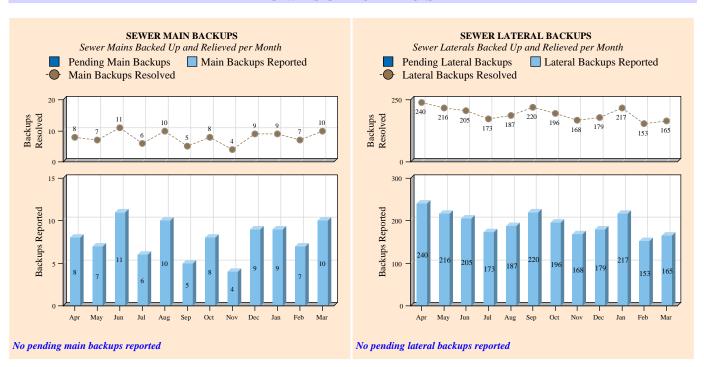


WATER BALANCE

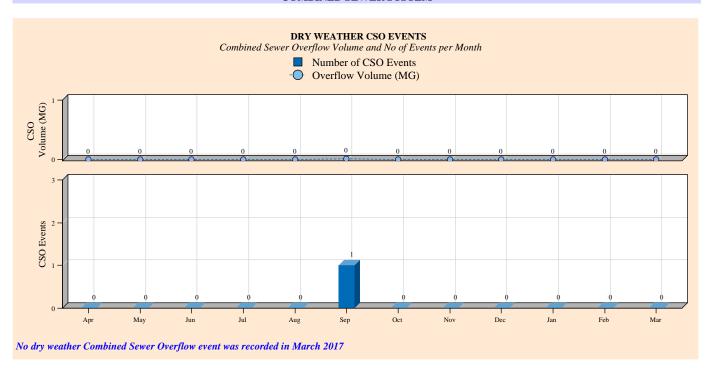


Page 11

SEWER SYSTEM OPERATIONS

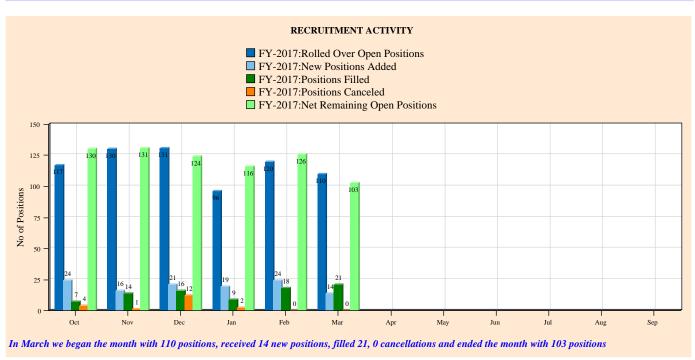


COMBINED SEWER SYSTEM

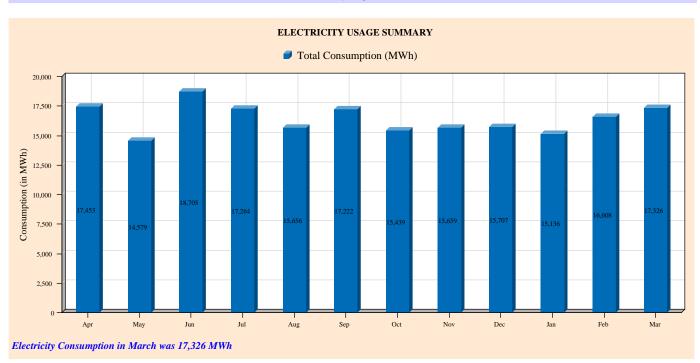


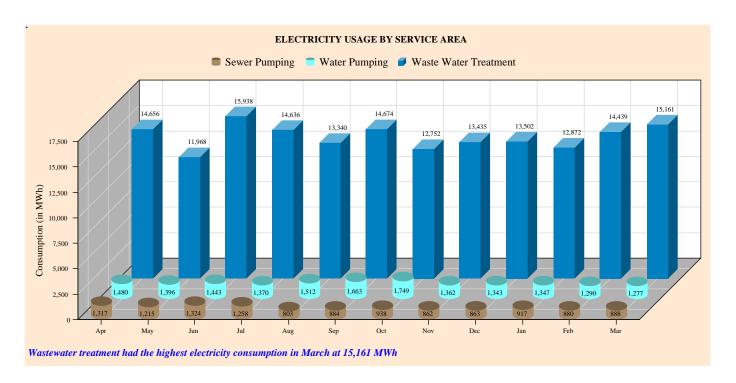
Page 12

HUMAN RESOURCES



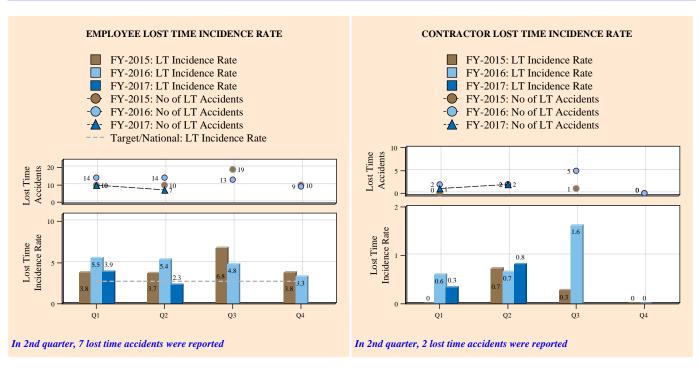
ENERGY



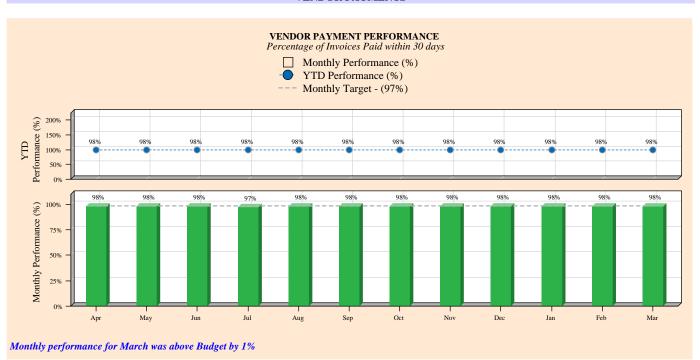


Page 14

SAFETY



VENDOR PAYMENTS



Page 15

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

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

CUSTOMER CARE AND OPERATIONS HIGHLIGHTS

Call Center Performance

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

Command Center Performance

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

First Call Resolution (FCR)

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

Emergency Response Time

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

Fire Hydrants Out of Service (OOS)

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

Fire Hydrant Inspections and Maintenance

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

Fire Hydrant Replacements

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

Total Applications Processed within Service Level Agreement (SLA)

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

Dynamic Color Coding Legend

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

LOW INCOME ASSISTANCE PROGRAM

SPLASH Contributions

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

Customer Assistance Program (CAP)

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

OPERATIONAL HIGHLIGHTS

Lead and Copper Rule (LCR) Compliance

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

Total Coliform Rule (TCR)

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

Biosolids Production

• Bar graph shows monthly average daily biosolids production

Total Nitrogen

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

Plant Effluent Flow

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

Excess Flow

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

Water Main Leaks

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

Water Valve Leaks

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

Dynamic Color Coding Legend

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

Non Revenue Water

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

Sewer Main Backups

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

Sewer Lateral Backups

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

Combined Sewer dry weather Overflow (CSO) Events

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

Open Positions

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

Electricity Usage Summary

• Bar graph shows total electricity consumption per month

Electricity Usage by Service Area

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

Employee Lost Time Incidence Rate

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

Contractor Lost Time Incidence Rate

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

Dynamic Color Coding Legend

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

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

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



Consent Agenda

Summary of Contracts

231st Meeting of the DC Water Board of Directors

Thursday, May 4, 2017

Joint Use Contracts

- 1. Resolution No. 17-25, Contract No. 17-PR-DFM-02, AN Exterior, Inc. The purpose of the contract is to provide roof replacement at the Biosolids Building located at Blue Plains. The contract amount is \$1,349,846.10. (Recommended by Environmental Quality and Operations Committee 04/20/17)
- 2. Resolution No. 17-26, Option Year One of Contract No, 16-PR-DWT-13A, Urban Service Systems Corporation. The purpose of the option is to continue providing hauling/disposal services for grit/screening collected at the Primary Treatment Facility. The option amount is \$850,000. (Recommended by Environmental Quality and Operations Committee 04/20/17)
- 3. Resolution No. 17-27, Contract No. 16-PR-DMS-43, Electric Motor & Contracting Co., Inc. (EMC). The purpose of the additional funding is to cover previously-forecasted maintenance of large motors throughout all DCWater facilities. The additional funding amount is \$700,000. (Recommended by Environmental Quality and Operations Committee 04/20/17)
- 4. Resolution No. 17-28, Supplemental Agreement No. 1 of Contract No. DCFA #463-WSA, AECOM Services of DC. The purpose of the supplemental agreement is to continue providing onsite construction management (CM) of Division Z-Popular Point Pumping Station Replacement (DC Clean Rivers Project) construction contract. The supplemental agreement amount is \$1,992,719.57 (Recommended by Environmental Quality and Operations Committee 04/20/17)
- 5. Resolution No. 17-29, Contract No. DCFA #485-WSA, Pure Technologies US, Inc. The purpose of the contract is to provide inspection and condition assessment, data analysis, and recommended rehabilitation options for large diameter water mains and major sewers in the District of Columbia and, to a limited extent, in the neighboring jurisdictions. The contract not-to-exceed amount is \$10,000,000. (Recommended by Environmental Quality and Operations Committee 04/20/17)
- 6. Resolution No. 17-30, Contract No. DCFA #490-WSA, Arcadis District of Columbia, PC. The purpose of the contract is to provide inspection and condition assessment, data analysis, and recommended rehabilitation options for large diameter water mains and major sewers in the District of Columbia and, to a limited extent, in

- the neighboring jurisdictions. The contract not-to-exceed amount is \$10,000,000. . (Recommended by Environmental Quality and Operations Committee 04/20/17)
- 7. Resolution No. 17-31, Change Order No. 7 of Contract No, 130060, American Contracting & Environmental Services. The purpose of the change order is to compensate the contractor for impacts to the construction schedule due to the emergency repair of the 72-inch force main, the required heavy cleaning of the Upper Potomac Interceptor Relief Sewer, and major repair of Sewage Pump 1 (SP-1) due to inoperability. The change order amount is \$1,762,011. (Recommended by Environmental Quality and Operations Committee 04/20/17)

Non-Joint Use Contracts

- 8. Resolution No. 17-33, Change Order No. 7 of Contract No. 070110, CPP Construction Company. The purpose of the change order is to provide temporary stabilization and abatement for the Watchman's Tower building and to modify remote site unit equipment to comply with new DC Water SCADA equipment standards. The change order amount is \$757,421. (Recommended by Environmental Quality and Operations Committee 04/20/17)
- 9. Resolution No. 17-34, Change Order No, 5 of Contract No. 140160, SAK Construction, LLC. The purpose of the change order is to install 1.681 LF of CIPP between 12"-24" diameter at various locations, rehabilitate lateral connections and approximately 25 manholes located throughout the District. The change order amount is \$1,291,775. (Recommended by Environmental Quality and Operations Committee 04/20/17)
- 10. Resolution No. 17-35, Contract No. 150170, J. Fletcher Creamer & Son, Inc. The purpose of the contract is to provide cleaning, lining and replacement of water mains to eliminate water quality issues due to tuberculation of the unlined casts iron mains in the project area. The contract not-to-exceed amount is \$4,294,482. (Recommended by Environmental Quality and Operations Committee 04/20/17)

Presented and Adopted: May 4, 2017

SUBJECT: Approval to Execute Contract No. 17-PR-DFM-02, AN

Exterior, Inc.

#17-25 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 May 4, 2017 upon consideration of a joint use matter, decided by a vote of __() in favor and __() opposed to execute Contract No. 17-PR-DFM-032, AN Exterior, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. 17-PR-DFM-02, AN Exterior, Inc. The purpose of the contract is to provide roof replacement at the Biosolids Building located at Blue Plains. The contract amount is \$1,349,846.10.

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 Biosolids Building Roof Replacement (Joint Use)

Approval to execute a contract for the replacement of the biosolids building roof in the amount of \$1,349,846.10.

CONTRACTOR/SUB/VENDOR INFORMATION		
PRIME: AN Exterior, Inc. 14522 C Lee Road Chantilly, VA 20151 LSBE	SUBS: N/A	PARTICIPATION: N/A

DESCRIPTION AND PURPOSE

Base Period Contract Value: \$1,349,846.10
Base Contract Period: 7 Months
Anticipated Contract Start Date: 05-15-2017
Anticipated Contract Completion Date: 12-14-2017
Bid Opening Date: 03-29-2017

Bids Received:

Bid Price Range: \$1,319,900.00-\$1,797,463.00

Preference Discount Received: \$100,000.00
Winning Evaluated Bid Amount: \$1,249,846.10

Purpose of the Contract:

This contract is to provide roof replacement at the Biosolids Building at Blue Plains, 5000 Overlook Avenue, SW, Washington, DC.

Contract Scope:

The Department of Facilities is responsible for all building conditions for DC Water. This contract replaces approximately 57,000 SF of roof for the Biosolids Building. The contractor shall provide all necessary materials, tools, equipment and personnel to remove, properly dispose of and replace the existing roof materials with a manufactured green roofing system.

Evaluated Companies and Any Preference Points:

AN Exterior, Inc. (LSBE) (Chantilly, VA) \$1,249,846.10 - (Bid Amount \$1,349,846.10)

ADP Construction, Inc. (LSBE) (Washington, DC) \$1,294,892.33 - (Bid Amount \$1,394,892.33)

Allstates Contractors, Inc. (Centerville, VA) \$1,319,900.00

Northeast Contracting Corp. (Lorton, VA) \$1,495,707.00

Kalkreuth Roofing and Sheet Metal (Fredrick, MD) \$1,666,050.00

Structural Engineering Group, Inc. (Sterling, VA) \$1,797,463.00

DC Water's LSBE program allows for certified LSBE bids to be evaluated at 10% or \$100,000.00 lower than offered. The bid submitted by Allstates Contactors, Inc. was the apparent low bidder prior to applying the LSBE program bid discount which resulted in an evaluated bid amount from AN Exterior, Inc. of \$1,249,846.10.

PROCUREMENT INFORMATION

Contract Type:	Firm Fixed Price Contract	Award Based On:	Lowest Responsive and Responsible Bidder
Commodity:	Construction	Contract Number:	17-PR-DFM-02
Contractor Market:	Open Market with Preference	Points for LBE and LSBE Par	rticipation

BUDGET INFORMATION

Funding:	Capital	Department:	Facilities
Service Area:	Wastewater	Department Head:	Johnnie Walker
Project:	LS		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.22%	\$556,406.56
Washington Suburban Sanitary Commission	45.84%	\$618,769.45
Fairfax County	8.38%	\$113,117.11
Loudoun Water	3.73%	\$50,349.26
Other (PI)	0.83%	\$11,203.72
FOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$1,349,846.10

Rosalind R. Inge Assistant General Manager Support Services

Dan Bae Director of Procurement

Robert Hunt

Acting Chief Financial Officer

George S. Hawkins General Manager

Date

Presented and Adopted: May 4, 2017

SUBJECT: Approval to Execute Option Year One of Contract No. 16-PR-DWT-13A, Urban Service Systems Corporation

#17-26 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 May 4, 2017 upon consideration of a joint use matter, decided by a vote of __() in favor and __() opposed to execute Option Year One of Contract No. 16-PR-DWT-13A, Urban Service Systems Corporation.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Option Year One of Contract No. 16-PR-DWT-13A, Urban Service Systems Corporation. The purpose of the option is to continue providing hauling/disposal services for grit/screening collected at the Primary Treatment Facility. The option amount is \$850,000.

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

Preliminary Treatment Facility Grit/Screening Hauling (Joint Use)

Approval to exercise option year one (1) for the hauling of grit and scum from the Preliminary Treatment Facility in the amount of \$850,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION			
PRIME: Urban Service Systems Corporation 212 Van Buren St., NW Washington, D.C. 20012 LBE	SUBS: N/A	PARTICIPATION: N/A	

DESCRIPTION AND PURPOSE

Original Contract Value:

\$900,000.00

Original Contract Dates:

04-18-2016 - 04-17-2017

No. of Option Years in Contract:

4

Modification Value:

\$50,000.00

Modification Dates:

04-18-2017 - 06-18-2017

Option Year 1 Value:

\$850,000.00

Option Year 1 Dates:

06-19-2017 - 04-17-2018

Purpose of the Contract:

This contract provides DC Water's Department of Wastewater Treatment (WWT) with hauling/disposal services for grit/screening collected at the Preliminary Treatment Facility. The Contractor also manages the free water and liquids that may collect in the trailers and oversees the proper disposal of these liquids. Finally, the Contractor also manages the weighing and hauling of the trailers to a permitted disposal site (sanitary landfill).

Contract Scope:

Wastewater contains large solids and grit that can interfere with treatment processes or cause undue mechanical wear and increased maintenance on wastewater treatment equipment. To minimize potential problems, these materials require separate handling. The Contractor provides all necessary labor, supervision, equipment, materials, tools, insurance and personnel for the hauling of roll-off trailers of grit, screenings, and scum. The Contractor shall perform the services on the Blue Plains Advanced Waste Water Treatment Plant (AWWTP), in areas located where DC Water's grit, scum and screening conveyance and loading systems are actively operating. This process requires continuous availability and monitoring of the trailers and dumpsters located under the loading chutes to collect the residuals.

Spending Previous Year:

Cumulative Contract Value:

04-18-2016 to 06-18-2017: \$950,000.00

Cumulative Contract Spending:

04-18-2016 to 02-28-2017: \$795,046.50

Contractor's Past Performance:

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

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	Award Based On:	Best Value
Commodity:	Services	Contract Number:	16-PR-DWT-13A
Contractor Market:	Open Market with Preference Points for LBE and LSBE participation		

BUDGET INFORMATION

Funding:	Operating	Department:	WWT	
Service Area:	Blue Plains	Department Head:	Salil Kharkar	

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.92%	\$356,320.00
Washington Suburban Sanitary Commission	43.33%	\$368,305.00
Fairfax County	9.81%	\$83,385.00
Loudoun Water	4.29%	\$36,465.00
Other (PI)	0.65%	\$5,525.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$850,000.00

Date

Aklile Tesfaye Assistant General Manager,

Blue Plains

Dan Bae Director of Procurement

Mark Kim/Chief Financial Officer

George S. Hawkins General Manager

4/25/17 Date

1018

Presented and Adopted: May 4, 2017

SUBJECT: Approval to Execute Additional Funding for Contract No.

16-PR-DMS-43, Electric Motor & Contracting Co., Inc.

(EMC)

#17-27 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 May 4, 2017 upon consideration of a joint use matter, decided by a vote of __() in favor and __() opposed to execute additional funding for Contract No. 16-PR-DMS-43, Electric Motor & Contracting Co., Inc. (EMC).

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute additional funding for Contract No. 16-PR-DMS-43, Electric Motor & Contracting Co., Inc. The purpose of the additional funding is to cover previously-forecasted maintenance of large motors throughout all DCWater facilities. The additional funding amount is \$700,000.

This Resolution is effective immediately.	
	Secretary to the Board of Directors

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT YEAR

Repair and Rehabilitation of Various Process Assets (Joint Use)

Approval to add funding to the Repair and Rehabilitation of Various Process Assets contract in the amount of \$700,000.00

CONTRACTOR/SUB/VENDOR INFORMATION			
PRIME: Electric Motor & Contracting Co., Inc.(EMC) 3728 Profit Way Chesaneake, VA 23323	SUBS: M&M Electric Motor Repair, Inc. LSBE	PARTICIPATION: 29%	

DESCRIPTION AND PURPOSE

Original Contract Value:

\$2,150,000.00

Base Year Dates:

01-01-2017 - 12-31-2017

No. of Option Years in Contract:

2

This Modification Value:

\$700,000.00

This Modification Dates:

05-05-2017 - 12-31-2017

Purpose of the Contract:

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

Scope of the Contract:

In 2017, the DMS contract for "Large Motors and Eddy Current Drives" contract (WAS-11-049-AA-JR) expired and the services to that contract were merged into this "Repair and Rehabilitation of Various Process Assets" contract (16-PR-DMS-43). The amount of this request is the average spending for the past 5 years under the prior contract. The requested funding will cover previously-forecasted maintenance of large motors, and would have otherwise gone toward the expired contract.

Prior to the contract merger in March, 2017, both contracts were held by Electric Motor and Contracting, Inc. (EMC) and had overlapping scopes of work. The newer Repair and Rehabilitation of Various Process Assets contract was awarded to EMC and its LSBE subcontractor, M&M Electric Motor Repair in December, 2016, resulting from an open solicitation. This solicitation and the accompanying vendor outreach were so recent that no new contractors have since developed the capability to address DC Water's requirement to repair large motors.

Savings:

Consolidating the contracts presents DC Water with an incremental 0.5% savings, or \$14,250 over the combined base year contract value. Other savings include: an extended warranty of 18 months from 12 on the incremental scope, not just the original scope; extended warranty during controlled storage; and process simplification for both DC Water and EMC with few POs needed and consolidated reporting.

Spending Previous Year:

Cumulative Contract Value:

01-01-2017 to 01-01-2018: \$2,150,000.00

Cumulative Contract Spending:

01-01-2017 to 03-28-2017: \$0.00

Contractor's Past Performance:

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

PROCUREMENT INFORMATION

Contract Type:	Fixed Price Requirement Contract	Award Based On:	Best Proposal and Responsible Bidder
Commodity:	Goods and Services	Contract Number:	16-PR-DMS-43

BUDGET INFORMATION

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

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.22%	
Washington Suburban Sanitary Commission	45.84%	\$320,880.00
Fairfax County	8.38%	\$58,660.00
Loudoun Water	3.73%	\$26,110.00
Other (PI)	0.83%	\$5,810.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$700,000.00

Aklile Tesfaye Assistant General Manager, Blye Plains

Dan Bae Director of Procurement

Joel Grosser, Actus Director of Procurement

Robert Hunz Acting Chief Financial Officer

George S. Hawkins

General Manager

Date

Presented and Adopted: May 4, 2017

SUBJECT: Approval to Execute Supplemental Agreement No. 1 of Contract No. DCFA #463-WSA, AECOM Services of DC

#17-28 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 May 4, 2017 upon consideration of a joint use matter, decided by a vote of __() in favor and __() opposed to execute Supplemental Agreement No. 1 of Contract No. DCFA #463-WSA, AECOM Services of DC.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Supplemental Agreement No. 1 of Contract No. DCFA #463-WSA, AECOM Services of DC. The purpose of the supplemental agreement is to continue providing onsite construction management (CM) of Division Z – Popular Point Pumping Station Replacement (DC Clean Rivers Project) construction contract. The supplemental agreement amount is \$1,992,719.57.

This Resolution is effective immediately.	
	Secretary to the Board of Directors

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

ACTION REQUESTED

ENGINEERING SERVICES SUPPLEMENTAL AGREEMENT

Construction Management Services, Anacostia River Combined Sewer Overflow (CSO) Control Projects, Division Z - Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion (Joint Use)

Approval to execute Supplemental Agreement No. 1 for \$1,992,719.57. The modification exceeds the General Manager's approval authority.

PRIME:	SUBS:		PARTICIPATION:
AECOM Services of DC 3101 Wilson Boulevard	SZ PM Consultants, Inc. Oakton, VA	MBE	28.6%
Suite 900 Arlington, VA 22201	Savin Engineers, PC Washington, DC	MBE	7.1%
Headquarters Los Angeles, CA 90067	Sigma Associates, Inc. Detroit, MI	WBE	5.3%

DESCRIPTION AND PURPOSE

Original Contract Value:	\$4,891,074.00	
Value of this Supplemental Agreement:	\$1,992,719.57	
Cumulative SA Value, including this SA:	\$1,992,719.57	
Current Contract Value, Including this SA:	\$6,883,793.57	
Original Contract Time:	958 Days	(2 Years, 8 Months)
Time Extension, this SA:	335 Days	
Total SA contract time extension:	335 Days	(0 Years, 11 Months)
Contract Start Date:	11-15-2014	
Contract Completion Date:	05-31-2018	

Purpose of the Contract:

To provide onsite construction management (CM) of Division Z – Popular Point Pumping Station Replacement (DC Clean Rivers Project) construction contract.

This work is required by Consent Decree

Original Contract Scope:

- Provide CM and other services to assist DC Water with construction of Division Z. Division Z includes construction of a new 55 MGD Poplar Point Sewage Pumping Station (PP-PS), the Anacostia Main Interceptor (AMI) Diversion Chamber, the AMI Diversion Sewer, the Emergency Overflow Structure, the 42" Force Main, the Discharge Connection Chamber, and the Main Outfall Sewers Diversion Chamber.
- Provide CM services to assist DC Water with the replacement of the Barry Road sewer.
- Work in cooperation and consultation with DC Water and the DC Clean Rivers Project Program Consultants Organization to effectively manage the construction work required to provide completed Division Z facilities.
- Provide field inspection services for the oversight of the construction work as well as oversight during startup and operational training for the newly constructed PP-PS.

Current Supplemental Agreement Scope:

- To extend onsite CM of Division Z Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion due to unforeseen delay in the construction of the project. The Contractor will be working 24/7 to recover schedule which requires augmented CM manpower to provide appropriate construction oversight.
- Extend CM, contract administration and resident engineering and inspection services by 335 days to assist DC Water with Division Z Construction Contract.

Future Supplemental Agreement Scope:

No future supplemental agreement is anticipated at this time.

PROCUREMENT INFORMATION				
Contract Type:	Cost Plus Fixed Fee	Award Based On:	Highest Ranking Score	
Commodity:	Professional Services	Contract Number:	DCFA - #463-WSA	
Contractor Market:	Open Market			

Funding:	Capital	Department: DC Cl	ean Rivers Project
Service Area:	Combined Sewer	Department Head:	Carlton Ray

ESTIMATED USER SHARE INFORMATION

CY - Allocation (Division Z, MJ20 - Poplar Point Pump Station)

User	Share %	Dollar Amount	
District of Columbia	90.00%	\$ 1,403,631.67	
Federal Funds	0.00%	\$ 0.00	
Washington Suburban Sanitary Commission	10.00%	\$ 155,959.08	
Fairfax County	0.00%	\$ 0.00	
Loudoun County & Potomac Interceptor	0.00%	\$ 0.00	
Total Estimated Dollar Amount	100.00%	\$ 1,559,590.75	

G1 -Allocation (Division Z, CAPM - Barry Road Sewer)

User	Share %	Dollar Amount	
District of Columbia	100.00%	\$	30,467.37
Federal Funds	0.00%	\$	0.00
Washington Suburban Sanitary Commission	0.00%	\$	0.00
Fairfax County	0.00%	\$	0.00
Loudoun County & Potomac Interceptor	0.00%	\$	0.00
Total Estimated Dollar Amount	100.00%	\$	30,467.37

CY - Allocation (Division Z, GIBP - Main Outfall Sewer Diversion)

CI - Allocation (Bitiolon E) o.e.			
User	Share %	Dollar Amount	69 MIT (143
District of Columbia	41.22%	\$	165,977.05
Federal Funds	0.00%	\$	0.00
Washington Suburban Sanitary Commission	45.84%	\$	184,580.01
Fairfax County	8.38%	\$	33,743.03
Loudoun County & Potomac Interceptor	4.56%	\$	18,361.36
Total Estimated Dollar Amount	100.00%	\$	402,661.45

Total Combined Allocation

User	Share %	Dollar Amount	
District of Columbia	80.30%	\$ 1,600,076.09	
Federal Funds	0.00%	\$ 0.00	
Washington Suburban Sanitary Commission	17.09%	\$ 340,539.09	
Fairfax County	1.69%	\$ 33,743.03	
Loudoun County & Potomac Interceptor	0.92%	\$ 18,361.36	
Total Estimated Dollar Amount	100.00%	\$ 1,992,719.57	

Page 2 of 3

Prepared March 22, 2017

ENGINEERING SERVICES SUPPLEMENTAL AGREEMENT

Construction Management Services, Anacostia River Combined Sewer Overflow (CSO) Control Projects, Division Z - Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion (Joint Use)

Robert Hunt

Acting Chief Financial Officer

Leonard R. Benson Chief Engineer

4/14/17

Dan Bae Director of Procurement

Date

George S. Hawkins

Date

General Manager

Presented and Adopted: May 4, 2017

SUBJECT: Approval to Execute Contract No. DCFA #485-WSA, Pure

Technologies US, Inc.

#17-29 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 May 4, 2017 upon consideration of a joint use matter, decided by a vote of __() in favor and __() opposed to execute Contract No. DCFA #485-WSA, Pure Technologies US, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. DCFA #485-WSA, Pure Technologies US, Inc. The purpose of the contract is to provide inspection and condition assessment, data analysis, and recommended rehabilitation options for large diameter water mains and major sewers in the District of Columbia and, to a limited extent, in the neighboring jurisdictions. The contract not-to-exceed amount is \$10,000,000.

This Resolution is effective immediately.		
	Secretary to the Bo	ard of Directors

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

ACTION REQUESTED

ENGINEERING SERVICES:

Condition Assessment of Large Diameter Water Mains and Major Sewers (Joint Use)

Approval to execute an architectural and engineering services contract not to exceed \$10,000,000.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
Pure Technologies US, Inc 8920 MD-108	Sagres Construction Lorton, VA	MBE	10.0%
Columbia, Maryland 21045	SaLUT, INC Washington, DC	MBE	5.0%
	Bryant and Associates Landover, MD	MBE	5.0%
	SZ PM Washington, DC	MBE	4.0%
	Phoenix Engineering Parkton, MD	MBE	4.0%
	CreativePages, LLC Sterling, VA	WBE	4.0%
	Brown and Caldwell Beltsville, MD		15.0%
	Red Zone Pittsburgh, PA		10.0%
	Engineering Design Technol Glen Burnie, MD	ologies, Inc	1.0%
	Savin Engineers, Inc Landover, MD		1.0%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:

\$10,000,000

(5 Years, 3 Months)

Contract Time:

1,922 Days

Anticipated Contract Start Date:

06-26-2017

Anticipated Contract Completion Date:

09-30-2022

Other firms submitting proposals/qualification statements:

Arcadis*

O'Brien & Gere Engineers

Simpson Gumperts & Heger*

Purpose of the Contract:

To provide inspection and condition assessment, data analysis, and recommended rehabilitation options for large diameter water mains and major sewers in the District of Columbia and, to a limited extent, in the neighboring jurisdictions.

Contract Scope:

The required services include condition assessment of large diameter water mains, construction of
access ports on water mains, inspection and condition assessment of major sewers, data analysis,
and preparation of condition assessment reports for each inspected asset, preparation of
alternative asset renewal analysis for defective inspected linear assets, project management,
permitting and coordination with DC Water's operation departments.

^{*} Asterisk indicates short listed firms.

PROCUREMENT INFORMATION				
Contract Type:	Negotiated Task Order - Fixed Price	Award Based On:	Highest Ranking Score	
Commodity:	Engineering Design Services	Contract Number:	DCFA #485 - WSA	
Contractor Market:	Open Market			

BUDGET INFORMATION

Funding:	Capital	Department:	Engine	ering and Technical Services
Service Area:	Water, Sanitary, Combined Sewer	Department H	lead:	Craig Fricke (Acting)
Project:	FT, DN, HT, HS, IK			

ESTIMATED USER SHARE INFORMATION

User	**Share %	Dollar Amount
District of Columbia	100.00%	\$ 10,000,000.00
Federal Funds	0.00%	\$
Washington Suburban Sanitary Commission	0.00%	\$
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	S
Total Estimated Dollar Amount	100.00%	\$ 10,000,000.00

^{**} Under the terms of the IMA, the capital costs associated with each joint 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.

Director of Procurement

Leonard R. Benson

Chief Engineer

George S. Hawkins General Manager 25/1

Date

Date

Presented and Adopted: May 4, 2017

SUBJECT: Approval to Execute Contract No. DCFA #490-WSA, Arcadis District of Columbia, PC

#17-30 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 May 4, 2017 upon consideration of a joint use matter, decided by a vote of __() in favor and __() opposed to execute Contract No. DCFA #490-WSA, Arcadis District of Columbia, PC.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. DCFA #490-WSA, Arcadis District of Columbia, PC. The purpose of the contract is to provide inspection and condition assessment, data analysis, and recommended rehabilitation options for large diameter water mains and major sewers in the District of Columbia and, to a limited extent, in the neighboring jurisdictions. The contract not-to-exceed amount is \$10,000,000.

This Resolution is effective immediately.	
	Secretary to the Board of Directors

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

ACTION REQUESTED

ENGINEERING SERVICES:

Condition Assessment of Large Diameter Water Mains and Major Sewers (Joint Use)

Approval to execute an architectural and engineering services contract not to exceed \$10,000,000.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
Arcadis District of Columbia, PC 2101 L Street NW	EBA Engineering Washington, DC	MBE	22.0%
Suite 200 Washington DC 20037	PEER Consultants PC Washington, DC	MBE	6.0%
	SZ PM Washington, DC	WBE	4.0%
Headquarters Highlands Ranch, CO 80129	Red Zone Pittsburgh, PA	1	10.0%
	Hydromax USA Washington, DC		10.0%
	PICA Miami, FL		5.0%
	Savin Engineering, Landover, MD		2.0%
	Corrosion Probe, Inc Centerbrook, CT		2.0%
	Brierly Associates Bedford, NH		2.0%
	HSS Contracting Gaithersburg, MD		2.0%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:

\$10,000,00.00

Contract Time:

1,922 Days

(5 Years, 3 Months)

Anticipated Contract Start Date:

06-26-2017

Anticipated Contract Completion Date:

09-30-2022

Other firms submitting proposals/qualification statements:

O'Brien & Gere Engineers

Pure Technologies, Ltd*

Simpson Gumperts & Heger*

* Asterisk indicates short listed firms.

Purpose of the Contract:

To provide inspection and condition assessment, data analysis, and recommended rehabilitation options for large diameter water mains and major sewers in the District of Columbia and, to a limited extent, in the neighboring jurisdictions.

Contract Scope:

The required services include condition assessment of large diameter water mains, construction of
access ports on water mains, inspection and condition assessment of major sewers, data analysis,
and preparation of condition assessment reports for each inspected asset, preparation of
alternative asset renewal analysis for defective inspected linear assets, project management,
permitting and coordination with DC Water's operation departments.

PROCUREMENT INFORMATION				
Contract Type:	Negotiated Task Order - Fixed Price	Award Based On:	Highest Ranking Score	
Commodity:	Engineering Design Services	Contract Number:	DCFA #490 - WSA	
Contractor Market:	Open Market			

BUDGET INFORMATION				
Funding:	Capital	Department:	Engine	eering and Technical Services
Service Area:	Water, Sanitary, Combined Sewer	Department H	lead:	Craig Fricke (Acting)
Project:	FT, DN, HS, HT, O4			

ESTIMATED USER SHARE INFORMATION			
User	**Share %	Dollar Amount	
District of Columbia	100.00%	\$ 10,000,000.00	
Federal Funds	0.00%	\$	
Washington Suburban Sanitary Commission	0.00%	\$	
Fairfax County	0.00%	\$	
Loudoun County & Potomac Interceptor	0.00%	S	
Total Estimated Dollar Amount	100.00%	\$ 10,000,000.00	

^{**} Under the terms of the IMA, the capital costs associated with each joint 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.

Robert Hunt

Acting Chief Financial-Officer

Dan Bae

Date

Director of Procurement

Leonard R. Benson

-/0 -/ Date

Chief Engineer

George S. Hawkins

Date

General Manager

Presented and Adopted: May 4, 2017

SUBJECT: Approval to Execute Change Order No. 7 of Contract No. 130060, American Contracting & Environmental Services

#17-31 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 May 4, 2017 upon consideration of a joint use matter, decided by a vote of __() in favor and __() opposed to execute Change Order No. 7 of Contract No. 130060, American Contracting & Environmental Services.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Change Order No. 7 of Contract No. 130060, American Contracting & Environmental Services. The purpose of the change order is to compensate the contractor for impacts to the construction schedule due to the emergency repair of the 72-inch force main, the required heavy cleaning of the Upper Potomac Interceptor Relief Sewer, and major repair of Sewage Pump 1 (SP-1) due to inoperability. The change order amount is \$1,762,011.

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 CHANGE ORDER:

Potomac Pumping Station Rehabilitation Phase III (Joint Use)

Approval to execute Change Order No. 7 for \$1,762,011. The modification exceeds the General Manager's approval authority.

PRIME:	SUBS:		PARTICIPATION:
American Contracting & Environmental Services 10330 Old Columbia Road, Suite 102	SQN Systems Columbia, MD	MBE	16.9%
Columbia, MD 21046	APRO Enterprises, Inc. Laurel, VA	MBE	1.0%

DESCRIPTION AND PURPOSE

Original Contract Value:	\$ 9,450,000.00	
Value of this Change Order:	\$ 1,762,011.00	
Cumulative CO Value, including this CO:	\$ 2,543,861.24	
Current Contract Value, including this CO:	\$11,993,861.24	
Original Contract Time:	730 Days	(2 Years, 0 Months)
Time extension, this CO:	401 Days	
Total CO contract time extension:	401 Days	(1 Year, 1 Month)
Contract Start Date (NTP):	09-30-2014	
Contract Completion Date:	11-04-2017	
Cumulative CO % of Original Contract:	26.9%	
Contract completion %:	74.0%	

Purpose of the Contract:

To provide construction services for rehabilitation of major equipment at the Potomac Pumping Station.

Original Contract Scope:

- Replace bar screens, sluice gates, and pump discharge valves
- Replace medium voltage switchgear and pump motor starters

Previous Change Order Scope:

- Increase Contingency Allowance
- Provide miscellaneous electrical, mechanical, and utility changes

Current Change Order Scope:

 Compensate the Contractor for impacts to the construction schedule due to the emergency repair of the 72-inch force main, the required heavy cleaning of the Upper Potomac Interceptor Relief Sewer, and major repair of Sewage Pump 1 (SP-1) due to inoperability.

See Supplemental Information for this Change Order (attached)

PROCUREMENT INFORMATION				
Contract Type:	Fixed Price	Award Based On:	Lowest responsive, responsible bidder.	
Commodity:	Construction	Contract Number:	130060	
Contractor Market:	Open Market			

BUDGET INFORMATION

Funding:	Capital	Department:	Engine	eering and Technical Services
Service Area:	Combined Sewer	Department H	lead:	Craig Fricke (Acting)
Project:	EJ			

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	49.78%	\$ 877,129.08
Washington Suburban Sanitary Commission	29.37%	\$ 517,502.63
Fairfax County	14.72%	\$ 259,368.02
Loudoun County & Potomac Interceptor	6.13%	\$ 108,011.27
Total Estimated Dollar Amount	100.00%	\$ 1,762,011.00

Chief Engineer

George S. Hawkins General Manager

Supplemental Information for Change Order No. 7

Issue 2: Critical Shutdown Delay Timeline

8/1/2015	DDCS initiates emergency repair of 72" Force Main	Delay to Critical Path begins, 8/17
8/17/2015	Contractor scheduled to start critical shutdown. Shutdown postponed.	
93 11/18/2015	DDCS restores 72" FM to service	Impact 1; 93 calendar days
12/1/2015	ACE begins wet well shutdowns for bar rack installation	
12/14/2015	UPIRS Contract NTP	
12/30/2015	ACE completes bar rack installation	
1/18/2016	UPIRS cleaning commences	Impact 2; 243 calendar da
3/31/2016	UPIRS Original Contract Completion Date	
6/6/2016	Revised UPIRS Completion Date	
243 7/18/2016	UPIRS Contractor Vacates Potomac Pump Station	
7/21/2016	ACE submits request to schedule Initial Shutdown for 8/15/16	
8/3/2016	DDCS removes damaged SP-1 from service	Impact 3; 65 calendar day:
65 9/21/2016	Initial Shutdown Commences, at SP-1, ending delay to Critical Path	

Potomac Pumping Station Rehabilitation Phase III Contract No. 130060

Fact Sheet Supplemental Information for Change Order No. 7

Background & Causal Issues

- The Potomac Pump Station has two discharge force mains (96-Inch & 72-inch) which handle the flow of sewage at the station. To ensure that DC Water is in compliance with mandated EPA capacity requirements (firm pumping capacity of 460 MGD), at least one force main must be in service at all times. In response to an inspection that identified significant leaks in the 72-inch force main, DDCS shut down the force main and performed the necessary repairs. These repairs took approximately eight weeks to complete. During this time, the 96" force main remained in service, and the contract work, to be performed by ACE, related to Gate Valve 3-B was delayed.
- DC Water executed a contract and issued NTP with a date of December 14, 2015 to perform heavy cleaning of a portion of the Upper Potomac Interceptor Relief Sewer (UPIRS) during the period of December 14, 2015 through March 31, 2016 (original UPIRS contract completion date). Figure 1 shows an overview of the initial debris levels (at minimum depth of .5" to a maximum depth of 52" in some places) and Figure 2 shows the transition in size at points along this segment of the 81" x 156" sewer. This work had to be performed during a specified time period in coordination with work being performed by the DC Water Clean Rivers Program at the Kennedy Center (per agreement), since there would not be another opportunity to clean the sewer from this access point- Structure 35 (located in the Kennedy Center parking lot) in the future. The alternate access point (Structure 37A), located on 27th St near Rock Creek Pkwy presented large impacts to traffic flow and the cleaning operation would be performed working against the flow, unlike working with the flow when accessed from Str. 35 for cleaning. In performing the heavy cleaning of the UPIRS, supplemental bar screens (Figure 3) were installed to protect the existing wet well self-cleaning screens and periodic wet well shutdowns at Potomac Pump Station were required to allow for the removal of the wash debris from the heavy cleaning of the upstream sewer. With the anticipated potential for periodic shutdowns at the pump station, the contract work for the Potomac Pumping Station Rehabilitation project was deferred until the UPIRS was completed. Figure 4 displays photographs of the UPIRS contractor mobilized at the site along the Rock Creek Parkway.
- Due to the volume and density of the material inside the sewer, progress was slower than anticipated. Figure 5 displays photographs of heavy debris material encountered during the cleaning process. By March 13, 2016 the UPIRS contractor had advanced 1,850lf into the sewer or 58% of the UPIRS' length. DC Water was required to vacate the access point, Structure 35, on March 31st to avoid penalty per the agreement. After discussions, a decision was made to remobilize the cleaning contractor to the Potomac Pump Station itself and allow the sewer cleaning to continue beyond the March 31, 2016 date for an additional sixty-seven days. The extended contract time allowed cleaning of 2,413lf (approx.75%) of UPIRS out of the total projected length of 3,200lf. 18,285 cubic ft. of material was removed during the operation. This

heavy cleaning yielded significant improvements in the system hydraulics to eliminate or minimize potential MH surcharging on the C&O Canal. The UPIRS contractor vacated the Potomac Pump Station on July 18, 2016.

• Upon completion of the cleaning of the Upper Potomac Interceptor Relief Sewer, the Contractor (ACE) began preparations to resume contract work at the Potomac Pump Station. A shutdown was planned for August 15, 2016, however, on August 5, 2016 Sewage Pump #1 (SP-1) had to be taken out of service for unanticipated emergency repair. With SP-1 out of service, it was not possible to proceed with the shutdown of another pump, or the associated wet well. Four out of five pumps are required to be available for service to maintain the firm pumping capacity. On September 21, 2016, DC Water was able to provide the necessary shutdown for the Contractor to proceed with the planned contract work.

Subject: Approving the Extension of the Credit Facility for the Series 2014B Subordinate Bonds

#17-32 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 an 	d Sewer Authority
("Authority"), at its meeting on	, by a vote of	_ (_) in favor and
(_) opposed, decided to appro	ove 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 issues its Public Utility Subordinate Lien Multimodal Revenue Bonds, Series 2014B (the "Series 2014B Subordinate Bonds") to finance certain Costs of the System, retire Series C Notes, and pay certain costs of issuance, and that such Series 2014B Subordinate Bonds are secured by, *inter alia*, a Standby Bond Purchase Agreement which expires on July 23, 2017; and

WHEREAS, the Authority now intends to extend the maturity of such Standby Bond Purchase Agreement with the Bank (the "Extension"); and

WHEREAS, there has been presented at this meeting a proposed Preliminary Term Sheet stating the business and legal parameters of the Extension, all as attached hereto as Exhibit A to this Resolution (the "Term Sheet"); and

WHEREAS, the Finance and Budget Committee met on April 27, 2017, to review the Extension and has recommended approval of this Resolution by the Board.

NOW, THEREFORE, BE IT RESOLVED, that:

Section 1. <u>Definitions and Interpretations</u>. Unless otherwise defined herein and unless the context indicates otherwise, the terms used herein and defined in the Indenture (including the Sixteenth Supplemental Indenture) shall have the meanings assigned to them therein. In addition, the following terms used as defined terms in this Resolution shall have the meaning ascribed to them in this Section:

"Authorized Officials" means the Chairman and Vice Chairman of the Board and the General Manager, Chief Financial Officer, Controller, Director Budget Department and Manager, Treasury, Debt and Risk 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.

"Financial Advisor" means Public Financial Management, Inc. and G-Entry Principle, P.C.

"Sixteenth Supplemental Indenture" means the Sixteenth Supplemental Indenture of Trust by and between the Authority and the Trustee, dated as of the same date as and relating to the Series 2014B Subordinate Bonds.

"Standby Bond Purchase Agreement" means collectively, the Standby Bond Purchase Agreements, each dated July 23, 2014, entered into for the Series 2014B Subordinate Bonds under the Sixteenth Supplemental Indenture.

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 which succeed to their functions, duties or responsibilities by operation of law and also those who at the time may legally act in their place.

Section 2. <u>Credit Facility Amendment and Extension</u>. In order to formalize the Extension, the Authorized Officials are, and each of them is, authorized in connection with the Extension, to execute, acknowledge and deliver in the name of and on behalf of the Authority, an amendment to the Standby Bond Purchase Agreement, with substantially the same terms as are described in the Term Sheet.

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 Extension 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 Sixteenth Supplemental Indenture, the amendment to Standby Bond Purchase Agreement and this Resolution.

No covenant, agreement or obligation contained herein shall be deemed to be a covenant, agreement or obligation of any present or future member of the Board or officer, employee or agent of the Authority in his or her individual capacity, and neither the members of the Board nor any officer of the Authority executing the amendment to the Standby Bond Purchase Agreement shall be liable personally thereon or be subject to any personal liability or accountability by reason of the execution 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 3. <u>Official Statement: Continuing Disclosure</u>. The Authorized Officials are each hereby further authorized to supplement and amend the Official Statement that in the judgment of an Authorized Official, is necessary and appropriate in order to make the Official Statement not materially misleading, and to comply with applicable securities laws or otherwise to enable the Authority to fulfill its obligations regarding the Official Statement under its existing Continuing Disclosure Agreements.

Section 4. <u>General</u>. 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.

Section 5. Effective Date. This Resolution shall take effect immediately.

Secretary to the Board of Directors	

SUBJECT: Approval to Execute Change Order No. 7 of Contract No.

070110, CPP Construction Company

#17-33 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 May 4, 2017 upon consideration of a non-joint use matter, decided by a vote of __() in favor and __() opposed to execute Change Order No. 7 of Contract No. 070110, CPP Construction Company.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Change Order No. 7 of Contract No. 070110, CPP Construction Company. The purpose of the change order is to provide temporary stabilization and abatement for the Watchman's Tower building and to modify remote site unit equipment to comply with new DC Water SCADA equipment standards. The change order amount is \$757,421.

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 CHANGE ORDER:

Rehabilitation and Upgrade of the Fort Reno Pumping Station (Non Joint Use)

Approval to execute Change Order No. 7 for \$757,421. The modification exceeds the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION PRIME: CPP Construction Company 362 B Christopher Avenue SUBS: Arriba Mechanical Baltimore, MD MBE 14.3%

362 B Christopher Avenue Baltimore, MD MBE 14.3%
Gaithersburg, MD Handon Services
Washington, DC MBE 4.3%

DESCRIPTION AND PURPOSE

\$4,100,000.00 Original Contract Value: \$ 757,421.00 Value of this Change Order: Cumulative CO Value, including this CO: \$ 2,378,166.00 \$ 6,478,166.00 Current Contract Value, including this CO: 820 Days (2 Years, 3 Months) Original Contract Time: 45 Days Time extension, this CO: (3 Years, 9 Months) 1385 Days Total CO contract time extension: 05-16-2011 Contract Start Date (NTP): 05-29-2017 Contract Completion Date: 58.0% Cumulative CO % of Original Contract: 94.3% Contract completion %:

Purpose of the Contract:

Rehabilitation and Upgrade of the Fort Reno Pump Station, increase water pressure and improve water supply reliability to the 4th High Service Area west of Rock Creek Park.

Original Contract Scope:

- Replacement of the existing pump controls, electrical service, emergency back-up generator, surge valves and three variable frequency drives.
- Installation of surge relief valves and an altitude valve for the Elevated Tank No.2.
- Upgrade of two remote pressure sensing sites.
- Installation of power and communication conduits to facilitate installation of a security system in the future.

Previous Change Order Scope:

- Reroute incoming PEPCO Duct bank, electrical and communication lines to accommodate revised PEPCO permitted site drawings provided after contract Notice To Proceed (NTP).
- Modifications to the switchgear orientation and installation of a floor strengthening system
 to accommodate size of the new electrical equipment and the transition from original to
 new equipment.
- Relocation of PEPCO termination points and modification to the existing electrical Pump Station Panels;
- Hazardous material abatement of pump station ceiling paint.
- Addition of the commissioning scope of work for new process controls.

Current Change Order Scope:

- Provide temporary stabilization and abatement for the Watchman's Tower building
- Re-configure the Programmable Logic Controller (PLC) to guarantee functionality between the PLC input, output data and the operator interface terminal in station.
- Refurbish pump motors to ensure proper functionality with new Variable Frequency Drives and electrical system.
- Modify remote site unit equipment to comply with new DC Water SCADA equipment standards.

See Supplemental Information for this Change Order (attached)

	PF	ROCUREMENT INFO	RMATION
Contract Type:	Fixed Price	Award Based On:	Lowest responsive, responsible bidder.
Commodity:	Construction	Contract Number:	070110
Contractor Market:	Open Market		

BUDGET INFORMATION				
Funding:	Capital	Department:	Engine	eering and Technical Services
Service Area:	Water	Department H	ead:	Craig Fricke (Acting)
Project:	AY			

User	Share %	Dollar Amount
District of Columbia	100.00%	\$ 757,421.00
Federal Funding	0.00%	\$
Washington Suburban Sanitary Commission	0.00%	\$
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	\$
Total Estimated Dollar Amount	100.00%	\$ 757,421.00

Acting Chief Finance Officer

Dan Bae Director of Procurement

Leonard R. Benson Chief Engineer

George S. Hawkins General Manager

Rehabilitation and Upgrade of the Fort Reno Pumping Station Project Supplemental Information - Summary of Impacts

Safety Netting 8/12/2013 Notice to Proceed While excavating for the installation of the storm drain piping, DC Water's mpact 61 calendar day delay Department of Occupational, Safety and Health required that a Safety Plan and Netting system was needed to work around Elevated Tank 1 due to loose slate shingles Delay to Critical Path ends, 10/12/2013 Executed Change Order No.2 51 calendar day delay - Submittal preparation (30 days) Submittal review and approval (31 days) **DESIGN REVISION 2** Delay to Critical Path begins, 10/12/2013 10/12/2013 DR 2 While reviewing the submittal for the Switchgear, DC Water noticed there were a number of safety issues related to the orientation of the switchgear and MCC. The area to service the switchgear faced the railing Impact 419 calendar days that overlooked the pump station several floors below, DC Water's Department of Occupational, Safety and Health felt that if there were an arc flash while servicing the equipment that the maintenance individual could potentially be thrown back and fall over the railing. DR-2 changed the orientation of both the MCC and the Switchgear to address the safety concerns of DC Water Delay to Critical Path ends, 12/5/2014 Executed Change Order No.2 419 calendar day delay Revised Design (272 days) Negatiations (87 days) Submittal preparation (30 days) Submittal review and approval (30 days) PEPCO PERMIT SITE LAYOUT DRAWINGS Delay to Critical Path begins, 12/5/2014 12/5/2014. Pepco Layout drawings were not available prior to the contract award. Also, after the submittal process, the location of the Network Transformer mpact 105 calendar days and Tie-Bus vaults had to be relocated due to differing site conditions Delay to Critical Path ends, 3/21/2015 Executed Change Order No.2 105 calendar day delay Submittal preparation (30 days) PEPCO review and approval (75 RE-ROUTE INCOMING SECONDARY DUCTBANK Delay to Critical Path begins, 3/21/2015 3/21/2015 Re-route Secondary ductbank due to interferences from an unknown mpact 96 calendar days abandoned 24 " water line and electrical hand holes Delay to Critical Path ends, 6/25/2015 Executed Change Order No.3 96 calendar day delay Submittal preparation (30 days) PEPCO DESIGN FOR CABLE AND TRANSFORMER CHANGES PEPCO review and approval (66 Delay to Critical Path begins, 6/25/2015 6/25/2015. Due to an unknown abandoned 24 " water line and electrical hand holes interfering with the location of EMH-3 containing the Network Transformer and incoming feeder lines, PEPCO had to redesign the size of impact 659 calendar days the transformer and length of the incoming cables. PEPCO took 284 days to complete the redesign; 263 days to mobilize and install the Transformer and cables; and 132 days to coordinate outages to energize the incoming feeders 14329 and transformer. Delay to Critical Path ends, 4/14/2017 Executed Change Order No.4 659 calendar day delay PEPCO Redesign (284 days) PEPCO Mobilization (63 days) PEPCO Work (132 days) ELEVATED TANK 2 - MEMBRANE TANK COVER DESIGN Delay to Critical Path begins, 4/14/2017 4/14/2017 The Elevated Tank 2 membrane cover design specified in the contract documents does not comply with current EPA regulations; therefore, the mpact 45 calendar days contractor had to provide a Membrane Cover design in compliance with EPA regulations Delay to Critical Path ends, 5/29/2017 Proposed Change Order No.7 45 calendar day delay 1385 TOTAL CALENDAR DAY IMPACT

SUBJECT: Approval to Execute Change Order No. 5 of Contract No.

140160, SAK Construction, LLC

#17-34 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 May 4, 2017 upon consideration of a non-joint use matter, decided by a vote of __() in favor and __() opposed to execute Change Order No. 5 of Contract No. 140160, SAK Construction, LLC.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Change Order No. 5 of Contract No. 140160, SAK Construction, LLC. The purpose of the change order is to install 1.681 LF of CIPP between 12"-24" diameter at various locations, rehabilitate lateral connections and approximately 25 manholes located throughout the District. The change order amount is \$1,291,775.

This Resolution is effective immediately.	
	Secretary to the Board of Directors

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

ACTION REQUESTED

CONSTRUCTION CONTRACT CHANGE ORDER:

G-100: Local Sewer Rehabilitation #1 (Non-Joint Use)

Approval to execute Change Order No. 5 for \$1,291,775. The modification exceeds the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
SAK Construction LLC 1405 Benson Court, Ste. C	DACO Construction Hanover, MD	MBE	17.4%
Arbutus, MD 21227	Luther Tylertown, MS	MBE	10.0%
Headquarters O'Fallon, MO 63366	P&P Sewer Techs Fort Washington, MD	MBE	7.4%
	TFE Owings Mills, MD	MBE	2.9%
	Envirenew Gaithersburg, MD	WBE	5.2%

DESCRIPTION AND PURPOSE

Original Contract Value: Value of this Change Order: Cumulative CO Value, including this CO:	\$5,250,125.00 \$1,291,775.00 \$1,814,789.00 \$7,064,914.00
Current Contract Value, including this CO: Original Contract Time: Time extension, this CO:	730 Days (2 Years, 0 Months) 127 Days
Total CO contract time extension: Contract Start Date (NTP): Anticipated Contract Completion Date:	127 Days (0 years, 4 months) 07-14-2015 11-17-2017
Cumulative CO % of Original Contract: Contract completion %:	34.6% 60.0%

Purpose of the Contract:

Repair and rehabilitation of sewer and storm water/sewer (combined) assets.

Original Contract Scope:

Install approximately 15,000 LF of Cured in Place Pipe (CIPP) in various sizes and locations. Rehabilitation of lateral connections. Rehabilitation of approximately 140 manholes located throughout the District. Surface restoration as required for the above work. Maintenance of traffic for the above work. Various other work as noted in the contract documents. Obtain all permits required by the contract.

Previous Change Order Scope:

- Due to flooding on the Capital Crescent Trail an 18" partially blocked sewer was rehabilitated with CIPP. A CCTV inspection took place before and after completion.
- Additional manhole rehabilitated, and some bypass pumping was required

Current Change Order Scope:

Install 1,681 LF of CIPP between 12"-24" diameter at various locations. Rehabilitation of lateral connections. Rehabilitation of approximately 25 manholes located throughout the District. Surface restoration as required for the above work. Maintenance of traffic for the above work. Obtain all required permits. This work was transferred from another Small Local Sewer Rehabilitation Contract (130190) because the Contractor's performance was unsatisfactory.

The reason this work was assigned to SAK Construction LLC is:

- The repair of the specific segment of sewer had been identified through the inspection program as "in need of immediate repair".
- This contract was originally bid with fixed unit price work items, including CIPP, sewer lining, and manhole rehabilitation
- The competitively bid fixed unit prices were very favorable to DC Water.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	Award Based On:	Lowest responsive, responsible bidder
Commodity:	Construction	Contract Number:	140160
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	Department:	Engineering and Technical Services
Service Area:	Sanitary	Department H	lead: Craig Fricke (Acting)
Project:	G1		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100,00%	\$ 1,291,775.00
Washington Suburban Sanitary Commission	0.00%	\$
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	\$
Total Estimated Dollar Amount	100.00%	\$ 1,291,775.00

Robert Hunt

Acting Chief Financial Officer

Dan Bae

Director of Procurement

Leonard R. Benson

Chief Engineer

George S. Hawkins

General Manager

Date

SUBJECT: Approval to Execute Contract No. 150170, J. Fletcher

Creamer & Son, Inc.

#17-35 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 May 4, 2017 upon consideration of a non-joint use matter, decided by a vote of __() in favor and __() opposed to execute Contract No. 150170, J. Fletcher Creamer & Son, Inc.

Be it resolved that:

The Board of Directors hereby authorizes the General Manager to execute Contract No. 150170, J. Fletcher Creamer & Son, Inc. The purpose of the contract is to provide cleaning, lining and replacement of water mains to eliminate water quality issues due to tuberculation of the unlined cast iron mains in the project area. The contract not-to-exceed amount is \$4,294,482.

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:

Small Diameter Water Main Cleaning and Lining 11C (Non Joint Use)

Approval to execute a construction contract for \$4,294,482.00

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
J. Fletcher Creamer & Son, Inc 11800 Old Baltimore Pike	Metro Paving Hyattsville, Maryland	MBE	14.3%
Beltsville, Maryland 20705	Aves Construction Corporation Temple Hills, Maryland	MBE	11.6%
Headquarters Hackensack, NJ 17601	Omega Supply Services, Inc Washington, DC	MBE	4.7%
(MBE)	BOTA Consulting Services, Inc Lanham, Maryland	MBE	1.2%
	Capital Development Design, Beltsville, Maryland	Inc MBE	0.4%
	R+R Contracting Utilities, Inc Olney, Maryland	WBE	4.2%
	Acorn Supply and Distributing White Marsh, Maryland	WBE	1.8%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed: \$4,294,482.00

Contract Time: 420 Days (1 Year, 2 Months)

Anticipated Contract Start Date (NTP): 06-19-2017

Anticipated Contract Completion Date: 08-13-2018

Bid Opening Date: 01-25-2017

Bids Received: 2

Other Bids Received

Fort Myer Construction Corporation \$4,697,988.00

Purpose of the Contract:

Cleaning, Lining and Replacement of water mains to eliminate water quality issues due to tuberculation of the unlined cast iron mains in the project area.

Contract Scope:

- Cleaning & Cement Mortar lining of approximately 1.24 miles of 8-inch water mains within Wards 2 and 3.
- Replace approximately 0.36 miles of water mains 12-inch diameter and smaller, associated valves, and appurtenances at various locations within Wards 2 and 3.
- Replace approximately 0.34 miles of copper or lead water services, 2 inch diameter and smaller, in public and private space.
- Install curb stop /curb stop box, meter box and penetration through building wall and connection to first fitting inside the building including installation of a shut-off valve and pressure reducing valve.
- Install permanent pavement and surface restoration.

	PR	OCUREMENT INFOR	MATION
Contract Type:	Fixed Price	Award Based On:	Lowest responsive, responsible bidder
Commodity:	Construction	Contract Number:	150170
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	Department: Engin		eering and Technical Services	
Service Area:		Department Head:		Craig Fricke (Acting)	
Project:	03				

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$4,294,482.00
Federal Funds	0.00%	\$
Washington Suburban Sanitary Commission	0.00%	\$
Fairfax County	0.00%	S
Loudoun County & Potomac Interceptor	0.00%	\$
Total Estimated Dollar Amount	100.00%	\$4,294,482.00

Acting Chief Financial Officer

Dan Bae Director of Procurement

Leonard R. Benson Chief Engineer

George S. Hawkins

General Manager

Daté

1/14/

Date

Date

4-25-11 Date

Prepared March 28, 2017