



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Board of Directors**

*Meeting of the
Environmental Quality and Operations Committee*

*5000 Overlook Avenue, SW, Room 407
Thursday, November 16, 2017
9:30 a.m.*

	I. Call to Order	James Patteson Chairperson
9:30 a.m.	II. AWTP Status Updates 1. BPAWTP Performance	Aklile Tesfaye
9:40 a.m.	III. Capital Improvement Program (CIP)	Paul Guttridge
10:00 a.m.	IV. Action Items	John Bosley/Leonard Benson
	Joint Use	
	<ol style="list-style-type: none">1. Contract No. 17-PR-DIT-06A – Advance Digital Systems, Inc. (ADS), IT Professional Services2. Contract No. 17-PR-DIT-06G – Networking for Future, Inc. (NFF), IT Professional Services3. Contract No. 16-PR-DMS-43 – Electric Motor & Contracting Co., Inc. (EMC), Repair and Rehabilitation of Various Process Assets4. Contract No. 16-PR-DSS-63 – Underground Utility Locating and Marking5. Contract No. 15-PR-DWT-35 – Polydyne, Inc., Supply and Delivery of Polymers6. Contract No. DCFA #445-WSA – O’Brien & Gere Engineers, P.C., Poplar Point Pumping Station Replacement7. Contract No. 160150 - Mobile Dredging & Video Pipe Services, Inspection and Cleaning of Oxon Run	
10:15 a.m.	V. Washington Aqueduct	Tom Jacobus
10:40 a.m.	VI. Pressure Zone Improvement Program (PZIP) Update	Deidre Saunders
10:50 a.m.	VII. Other Business/Emerging Issues	
10:55 a.m.	VIII. Executive Session*	
11:00 a.m.	IX. Adjournment	James Patteson

Chairperson

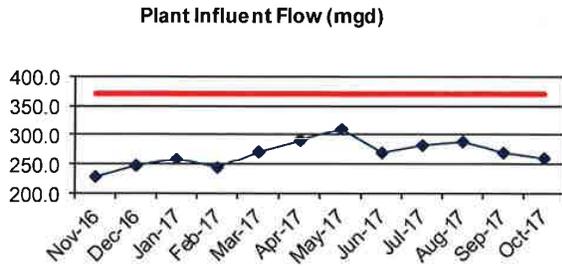
* The DC Water Board of Directors may go into executive session at this meeting pursuant to the District of Columbia Open Meetings Act of 2010, if such action is approved by a majority vote of the Board members who constitute a quorum to discuss: matters prohibited from public disclosure pursuant to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

Follow-up Items from Prior Meetings:

1. General Manager, DC Water: Arrange a tour of security facilities and command center for Committee members. **[Tour scheduled for Jan 2018]**
2. General Manager, DC Water: Schedule meeting with the Retail Rates Committee to discuss potential modifications to the Water Service Replacement Fee structure. **[TBD]**
3. Director, DC Clean Rivers Project DC Water: Provide a briefing on the readiness level of DC Water in regards to projected staffing needs (i.e., Operators, Controllers, Technician, etc.) when the Northeast Boundary Tunnel is commissioned. **[To be included in the DCCR Quarterly Update, Dec 2017]**
4. Chief Engineer, DC Water: Provide a presentation on the prioritization criteria for selection of water mains to be replaced each year **[Target, Dec 2017]**
5. The IMA Regional Committee (RC) brief the EQ & Ops Cmte on the work of the IMA RC **[Target, Jan 2018]**
6. Director, DC Clean Rivers Project: Provide details regarding the commissioning and hand-off process (to Operational departments) of the NEBT project and how those two critical activities might impact the consent decree deadline. **[To be included in the DCCR Quarterly Update, Dec 2017]**
7. Manager, Green Infrastructure: Provide specifications of permeable pavement design used in the Division RC-A – Rock Creek GI Project A. **[Target, Dec 2017]**
8. Director, DC Clean Rivers Project: Update the DC Clean River schedule chart to include detailed breakdowns of the Green Infrastructure (GI) project activities and durations. **[To be included in the DCCR Quarterly Update, Dec 2017]**
9. Director, DC Clean Rivers Project: Provide a detailed explanation regarding acceptable type of flows and any other restrictions on type of flows to be carried by the tunnels planned and currently under construction as part of the Long Term CSO Control Plan. **[To be included in the DCCR Quarterly Update, Dec 2017]**
10. Director, DC Clean Rivers Project: Schedule a tour of the tunnel facilities and associated projects for the Board members. **[Completed]**
11. Chief Engineer: Provide an update to the Committee regarding the Anacostia 2nd High Pressure Improvement Program (A2H PZIP). **[On current Agenda]**
12. Chief Engineer: Provide an update regarding timeliness and general approval process of DC Water Permit Operations. **[Target, Jan 2018]**

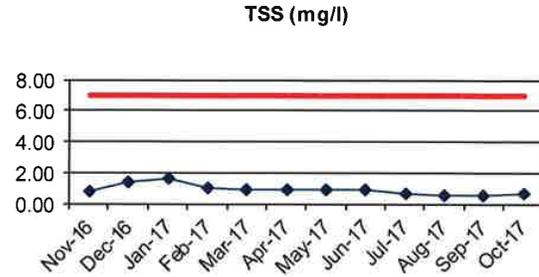
BLUE PLAINS ADVANCED WASTEWATER TREATMENT PLANT PERFORMANCE REPORT – OCTOBER 2017

Average plant performance for the month was excellent with all effluent parameters well below the seven-day and monthly NPDES permit requirements. The monthly average influent flow was 259 MGD. There was no Excess Flow during this reporting period. The following Figures compare the plant performance with the corresponding NPDES permit limits.



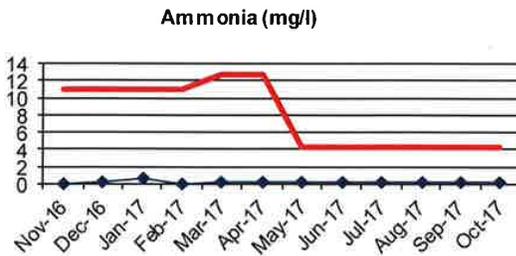
■ Influent Flow — Average Design Capacity

This graph illustrates the monthly average influent flow to the plant. The design average flow is 370 MGD. Blue Plains has a revised 4-hour peak flow capacity of 511 MGD through complete treatment. Flows up to 336 MGD in excess of the 511 MGD peak capacity receive primary treatment, disinfection and dechlorination.



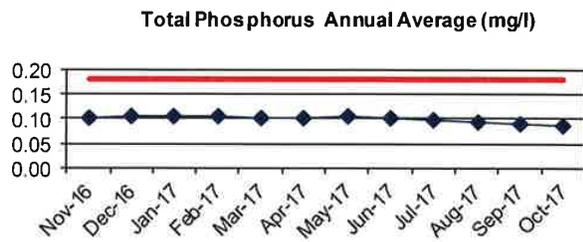
■ Effluent TSS — Permit Limit

Effluent Total Suspended Solids (TSS) is a measure of the amount of solid material that remains suspended after treatment. The effluent TSS concentration for the month averaged 0.70 mg/L, which is below the 7.0 mg/L permit limit.



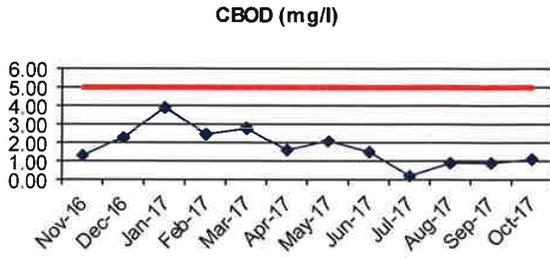
■ Effluent NH3 — Permit Limit

The Ammonia Nitrogen (NH₃-N) is a measure of the nitrogen found in ammonia. For the month, effluent NH₃-N concentration averaged 0.16 mg/L and is below the average 4.2 mg/L limit.



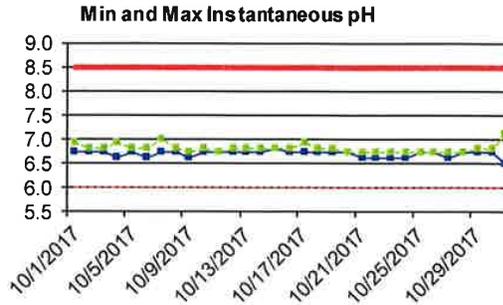
■ Effluent TP — Permit Limit

The Total Phosphorus (TP) is a measure of the particulate and dissolved phosphorus in the effluent. The annual average effluent TP concentration is 0.10 mg/L, which is below the 0.18 mg/L annual average limit.



■ Effluent CBOD — Permit Limit

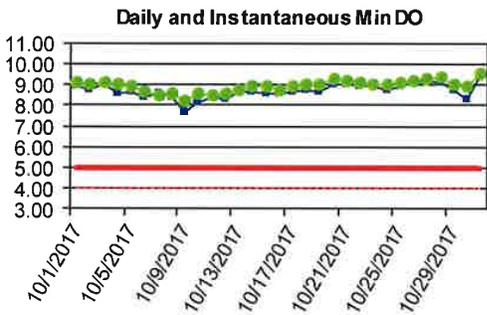
Carbonaceous Biochemical Oxygen Demand (CBOD) is a measure of the amount of dissolved oxygen required for the decomposition of organic materials. The effluent CBOD concentration averaged 1.09 mg/L (partial month), which is below the 5.0 mg/L limit.



● MAX pH ■ MIN pH — Upper Limit - - Lower Limit

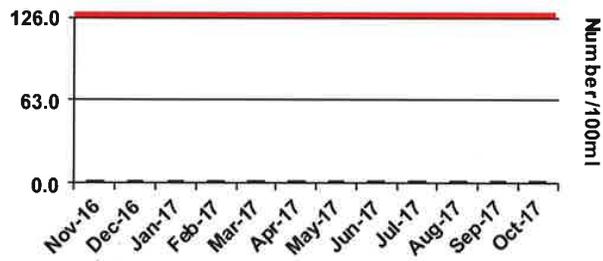
pH is a measure of the intensity of the alkalinity or acidity of the effluent. The minimum and maximum pH observed were 6.5 and 7.1 standard units, respectively. The pH was within the permit limits of 6.0 and 8.5 for minimum and maximum respectively.

E. coli



● MIN Daily Average ■ Instant MIN DO
— MIN Daily Average Limit - - Instant MIN Limit

Dissolved Oxygen (DO) is a measure of the atmospheric oxygen dissolved in wastewater. The DO readings for the month are within the permit limits. The minimum daily average is 8.2 mg/L. The minimum instantaneous DO reading is 7.7 mg/L. The minimum permit limits are 5.0 mg/L and 4.0 mg/L respectively.

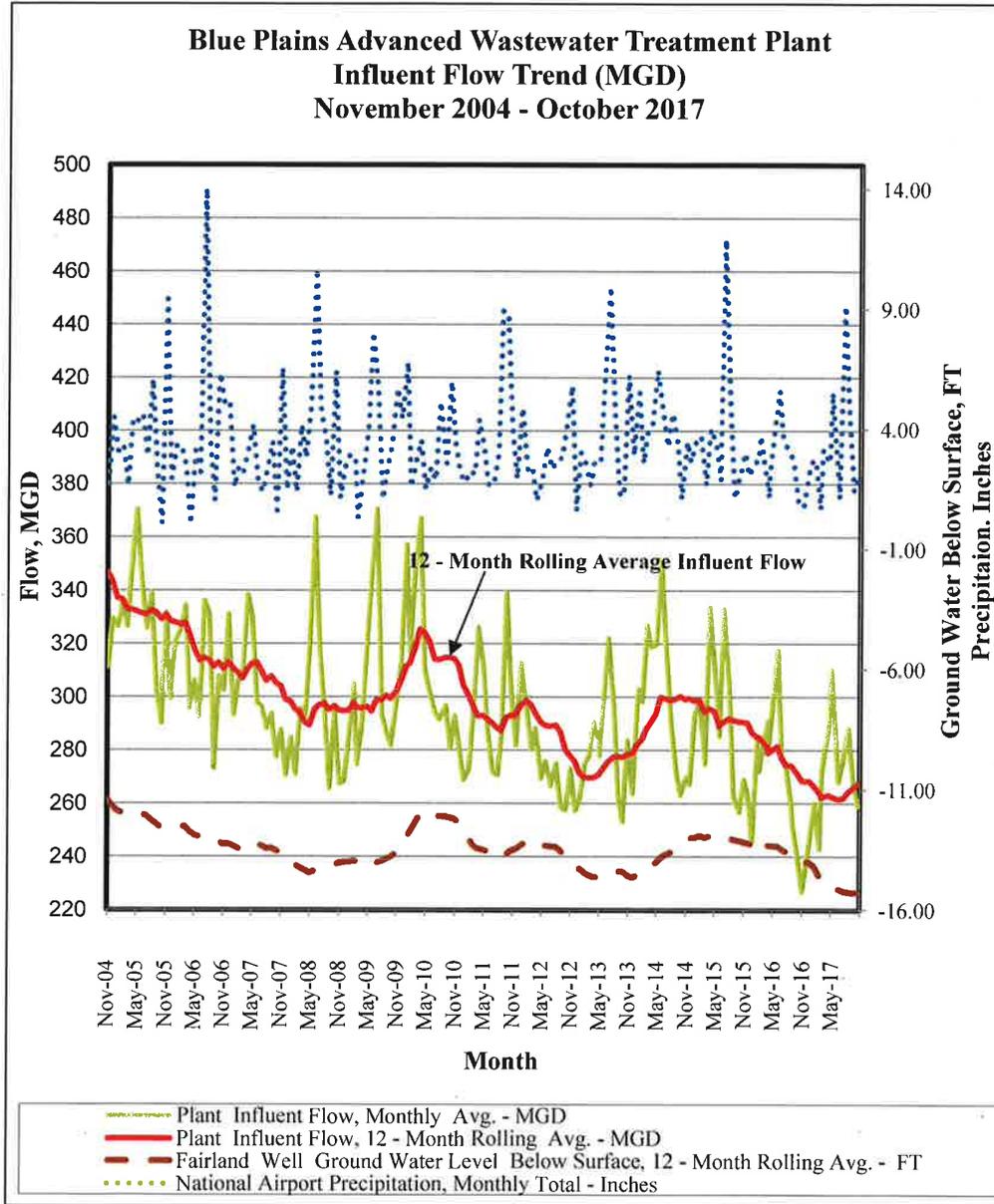


■ E. Coli Geomean — Permit Limit

E.coli is an indicator of disease causing organisms (pathogens). The E.coli permit limit is 126/100mL. The E coli geometric mean is 1.0 /100mL, and well below the permit limit.

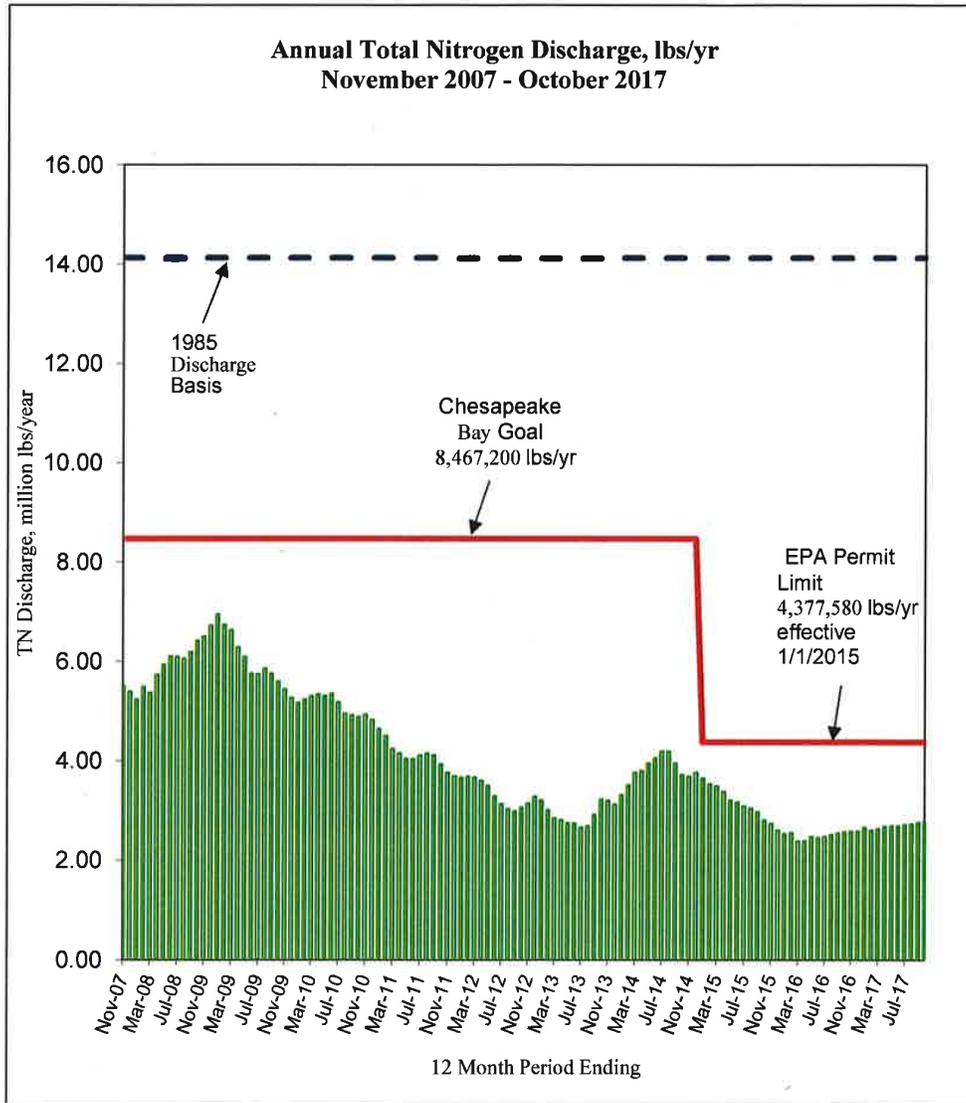
Plant Influent Flow Trend

The graph below shows a long-term influent flow trend to the plant ending October 2017. While for any given month the flow is weather dependent, the 12-month rolling average influent flow has remained at or below 300 MGD since February 2011.



Blue Plains Total Nitrogen (TN) Removal – Performance

The graph below shows a rolling 12-month total effluent TN discharge, in pounds per year, over a 10-year period ending October 2017. During the month, the TN average concentration and total load in the effluent were 2.90 mg/L and 194,000 lbs respectively. The effluent quality is on track to remain below the NPDES permit annual load limit of 4,377,580 lbs/year.

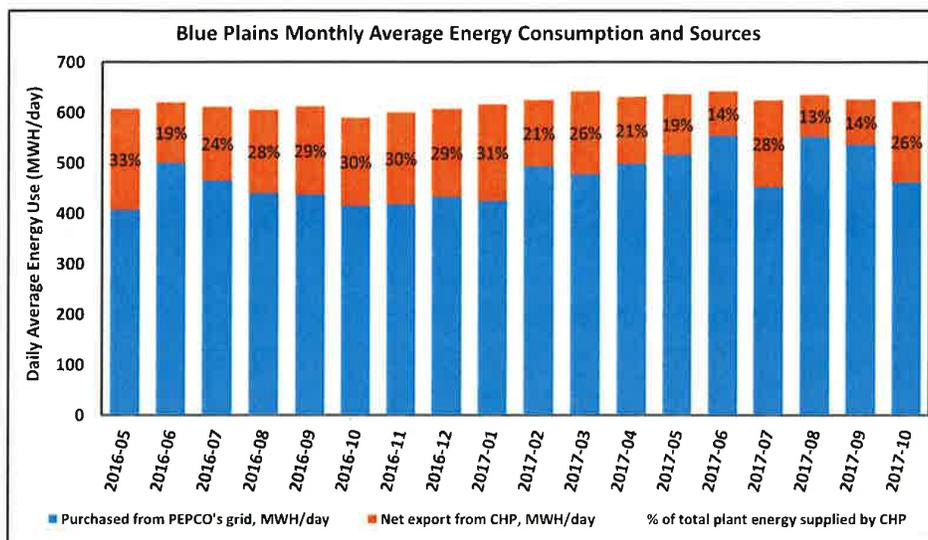


Annual NPDES Compliance Evaluation and Inspection

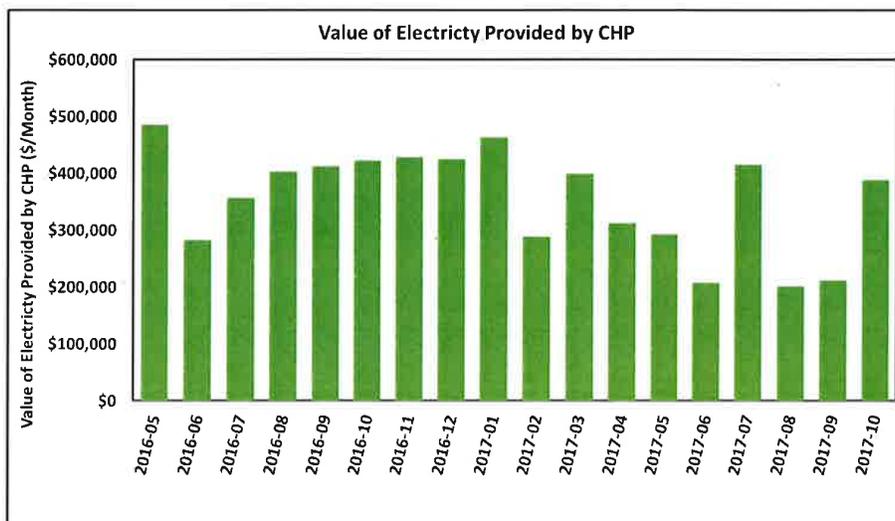
Inspectors from The District of Columbia Department of Environment and Energy (DOEE) completed the Annual NPDES Compliance Evaluation and Inspection of all permitted facilities on October 11th and 16th of 2017. The 2-day inspection included field inspection of treatment units and equipment and review of: effluent sampling and laboratory procedures and records, discharge monitoring reports, Stormwater Pollution Prevention Plan (SWPPP), and O&M records. No major concerns were identified during the inspection.

Blue Plains Electricity Generation and Usage

In October 2017, the average energy consumed at Blue Plains was 622 megawatt hours per day (MWH/day) or 2.4 MWH of electricity per million gallon of wastewater processed through complete treatment. The Combined Heat and Power (CHP) facility generated an average of 160 MWH/day, making up for 26% of total energy consumed at Blue Plains. The remaining 461 MWH/day was purchased from PEPCO.



The graph above is based on power monitors installed at the Main Substation and CHP, and reflects average energy consumed at Blue Plains in MWH/day. Of the total use, the energy purchased from PEPCO and net energy supplied by CHP are indicated by the blue and orange highlights, respectively. The graph below shows the monthly value of the net electricity produced by CHP by assuming unit price of \$78/MWH of electricity.

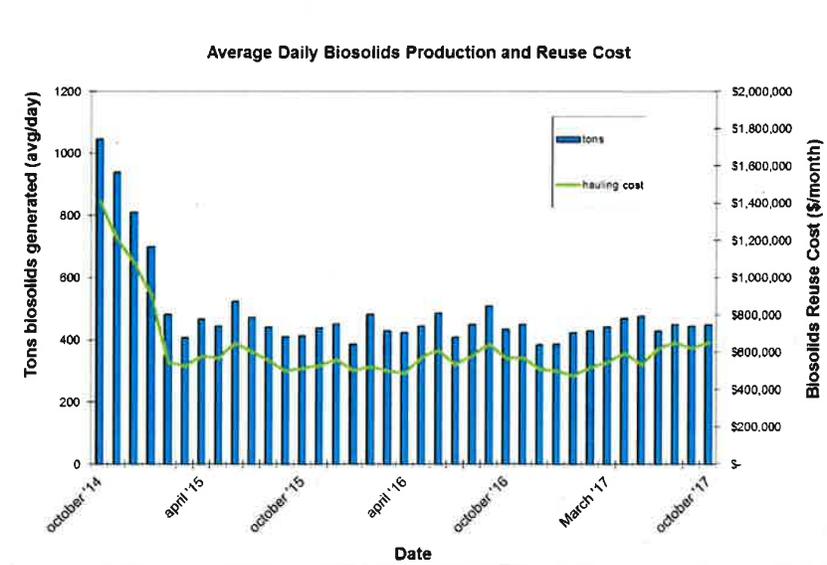
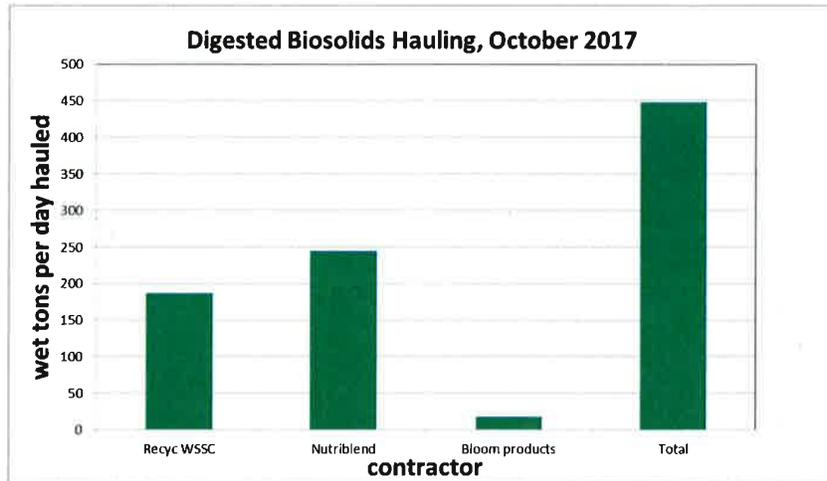


CHP Operation and Maintenance Status

In October, the capacity of the CHP waste heat boilers or Heat Recovery Steam Generators (HRSG) to supply adequate high pressure steam improved as a result of a major repair on one of the three units completed on September 28, 2017. The repair restored the unit to the original factory condition with modifications to the duct burner and digester gas flow controls. After one full week and three weeks of operation, PES completed full inspection of the unit and verified that the restoration was effective. Additional monitoring and full inspection will continue through November to further verify effectiveness of the repair, before it is applied to restore the remaining two units; to full capacity.

RESOURCE RECOVERY

In October, biosolids hauling averaged 448 wet tons per day (wtpd). The average percent solids for the Class A material was 29.7%. The graph below shows average daily biosolids produced and the associated monthly cost for reuse (transportation and application cost) for a three-year period ending October 2017. In October, diesel prices averaged \$2.93/gallon, and with the contractual fuel surcharge, the weighted average biosolids reuse cost (taking into account the marketed material) was \$41.92 per wet ton.

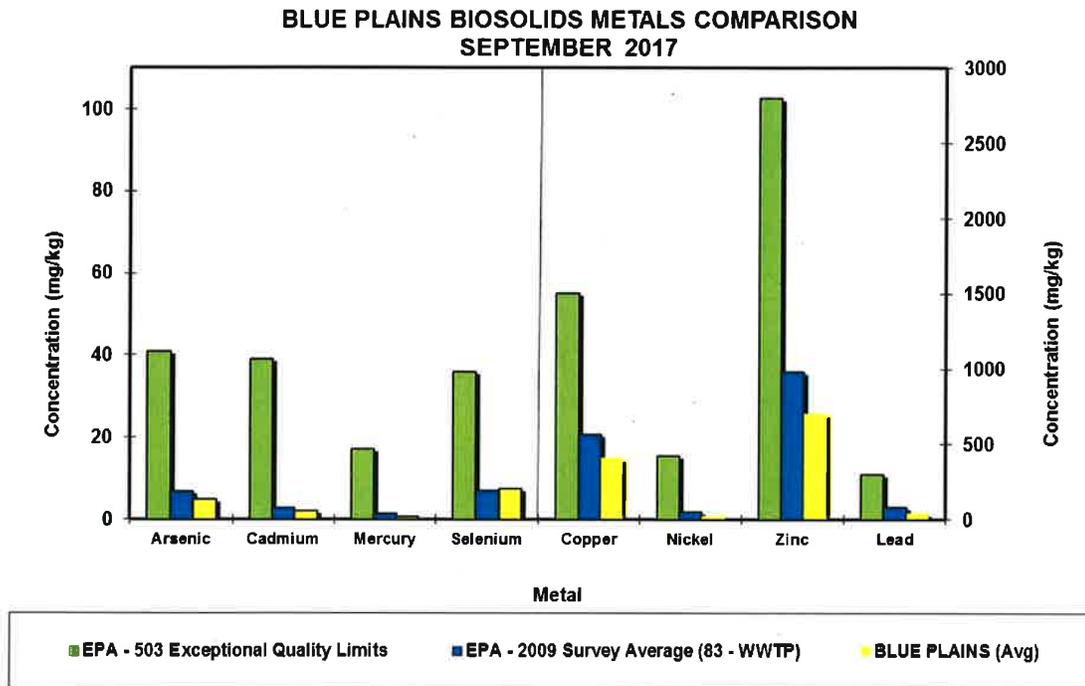


The average quantities of Class A biosolids transported and applied on farms by the two major contracts (WSSC's Recyc and DC Water's Nutriblend) and the quantities marketed as Bloom are shown on the graph below. In October, 541 wet tons of Bloom were distributed to 8 different customers.

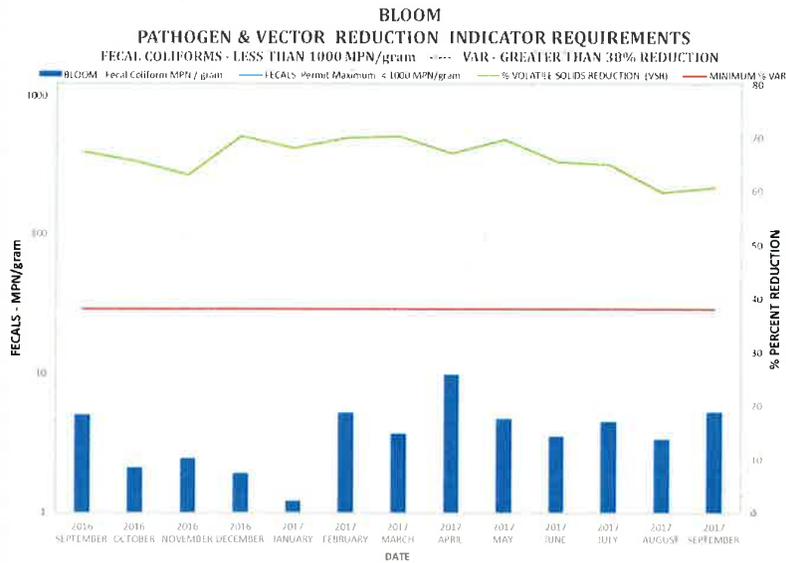
Product Quality

All biosolids produced during the month of September met Class A Exceptional Quality (EQ) requirements required by EPA.

The graph below shows the EPA regulated heavy metals average concentrations in the Class A biosolids. The concentrations are considerably below the regulated exceptional quality limits (EPA-503 Exceptional Quality Limits) and the national average (EPA-2009 Survey Average).

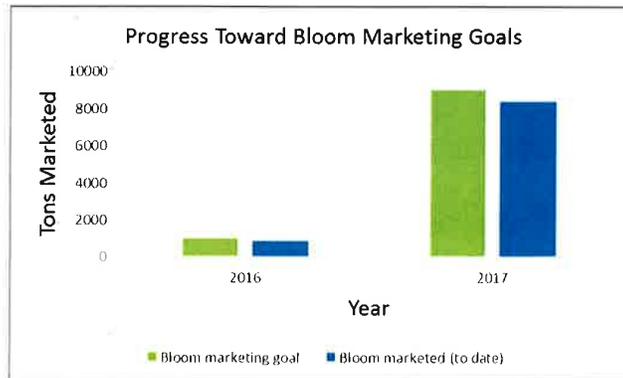


The graph below shows both Vector Attraction Reduction (VAR) and Fecal Coliform (FC) results in the Class A product, both of which are required to maintain the Class A Exceptional Quality (EQ) status. Vector Attraction Reduction is measured by the reduction in Volatile Solids (VS) or organic compounds that may be odorous and attract nuisance vectors such as flies and rodent. DC Water anaerobic digesters reduced VS by over 65 percent, well above the required 38 percent minimum. In addition, the graph shows fecal coliforms levels in the Class A product. Fecal coliforms are indicators of disease causing organism (pathogens), and must be below 1,000 MPN/g to meet Class A standards. The FC levels in the Class A product are two orders of magnitude less than the maximum allowable level.

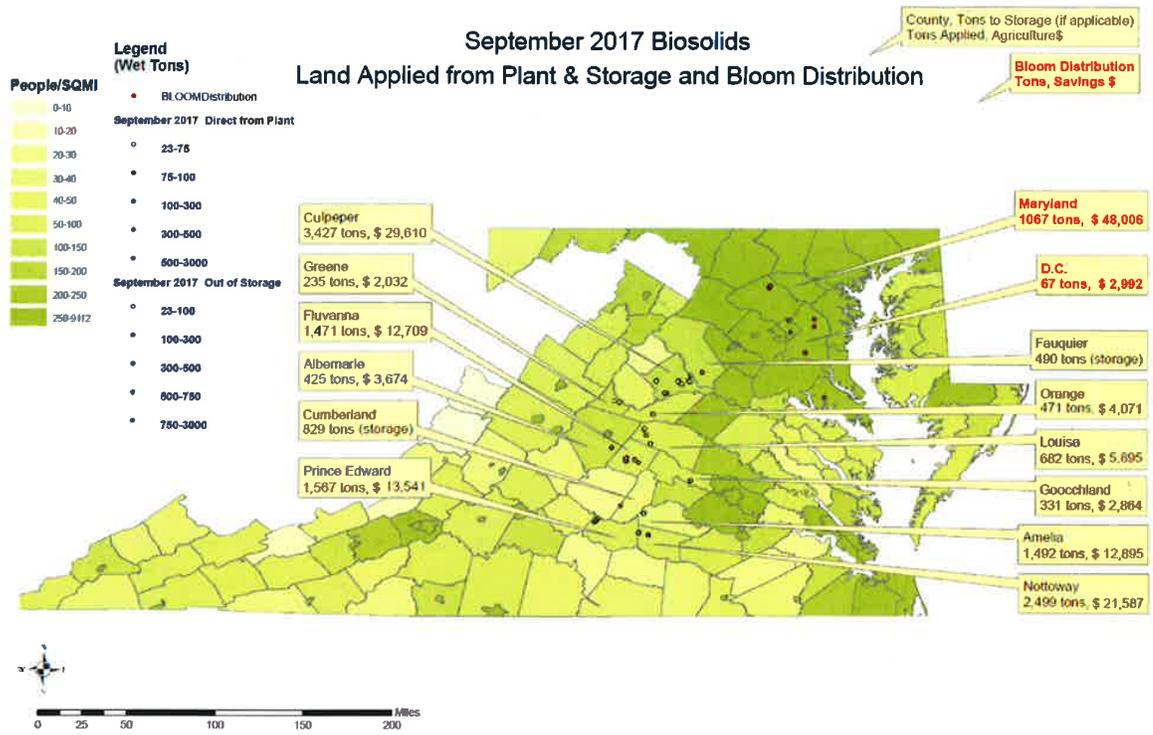


Bloom Marketing

Bloom sales as of November 1st total 8347 tons for the calendar year. This represents 92% of the goal, 83% of the way through the year.



Bloom Reuse and Value Map



CLEAN WATER QUALITY AND TECHNOLOGY

The Department of Clean Water Quality and Technology includes the research and development, pretreatment and laboratory programs. A summary of activities for each group is provided below.

Research and Development

The research and development team focuses on research topics associated with the planning and operation of Blue Plains. The current focus of research is to optimize treatment process capacity and to work toward achieving energy neutral operations. Activities during September and October included continued work by our research team in the carbon removal/redirection, nitrogen removal, and solids treatment focus areas. In addition, members of the R&D team were involved with the activities below.

Development and Testing of AvN Controller – Aug 28th – Sep 1, 2017

The research and development team has been working with a control system programmer to develop a control box that can be integrated within any wastewater treatment plant's existing control infrastructure to apply AvN control. The AvN control strategy is a patented technology and was developed in-house with collaboration between DCW, HRSD and ARAconsult. The controller determines the process aeration needs in a way that can optimize performance and operation cost for reliable and cost effective nitrogen removal. The controller was being prepared for testing on a real system, first on the Blue Plains pilot plant and later at a full-scale facility. Testing was performed on the mainstream deammonification pilot system in September to evaluate whether the controller can provide similar response to the existing process controls used in the pilot. The testing commenced for 4 days, where system integration and communication issues were resolved. A list of issues were determined to improve the functionality and these updates will be incorporated into the controller.

Bio-ZVI pilot testing – Fluidized Bed testing – Sep 14th, 2017.

As part of the Bio-ZVI technology evaluation, which is a service DCW is providing to HFK Technology, DC Water is looking at different reactor configurations to facilitate this nitrogen polishing technology. The team fabricated bench testing units in-house and conducted the test under the supervision of a technology expert who is advising HFK. The goal of the test was to determine the physical design parameters to help design a larger pilot tank that will be used for a longer term test.

Research Overview and Discussion with Water Care Services – Sep 26th, 2017.

We had the opportunity to host guests from Water Care Services, the water and wastewater utility for Auckland, New Zealand and the surrounding area. Water Care representatives were interested in learning more about DC Water's approach to biosolids treatment, handling and beneficial use as Water Care and DC Water face many of the same challenges within the wastewater treatment plants. The guests were also interested in our research program and especially carbon and nitrogen

management with the goal of pushing the plant into energy neutrality. The R&D team presented an overview of the research program including vision, direction and key projects.

Blue Plains Main Laboratory

The Main Laboratory staff conducts analyses on Blue Plains AWTP effluent for NPDES Permit requirements, as well as on biosolids, pretreatment samples, storm water runoff, and process samples, on a daily basis, 365 days a year. The laboratory currently analyzes approximately 2,800 samples each month and conducts approximately 8,000 analyses, including Total Suspended Solids; Volatile Suspended Solids; Total and Volatile Solids; Ammonia Nitrogen; Nitrite and Nitrate Nitrogen; Total, Soluble, and Ortho Phosphorus; Total and Soluble Kjeldahl Nitrogen; Carbonaceous Biochemical Oxygen Demand; Chemical Oxygen Demand; Total Alkalinity and Hardness; and Fecal Coliform and E. Coli microbiological testing.

In addition to comprehensive testing to support operation of liquid stream processes, the laboratory analyzes Belt Filter Press cake samples for fecal coliform bacteria for DC Water's Class A Biosolids reporting, as well as digester samples from the new Cambi Thermal Hydrolysis and Anaerobic Digestion facility, including Total and Volatile Solids, Total and Volatile Suspended Solids, Ammonia Nitrogen, alkalinity and pH. Fecal coliforms in the BFP dewatered cake and TS and VS upstream and downstream of the digestion process are monitored to show compliance with 40 CFR 503 Pathogen and Vector Attraction Reduction requirements.

The laboratory also assisted the Department of Sewer Services conducting microbiological analysis of water samples for E. coli bacteria, as well as monitoring the Northeast Boundary Swirl Facility Effluent for NPDES compliance. Laboratory staff also participated in the WWOA Executive Board.

This month the laboratory began analysis of samples from the new Filtrate Treatment Facility which removes nitrogen from the belt press dewatering filtrate. Parameters analyzed include ammonia, nitrate, and nitrite nitrogen; ortho-phosphorus; COD; TSS; VSS and alkalinity.

Blue Plains Pretreatment Program

The Blue Plains Pretreatment Program manages the Industrial Pretreatment Program, including temporary dewatering dischargers from construction and other activities, as well as the Hauled Waste Program. Additional responsibilities include providing specialized sampling and program management support for the Blue Plains NPDES permit and facilitating the quarterly Blue Plains Storm Water Committee meetings and other SWPPP compliance activities. Staff also participated in a specialized sampling program this month to look at gas production in the sewer system. Staff is currently working on updating regulations and procedures to incorporate EPA's new Dental

Amalgam Rule, as well as a new proposed hauled waste fee structure (volume-based instead of annual flat fee), and fees for industrial high strength waste.

Industrial Pretreatment Program

DC Water currently manages twelve (12) Significant Industrial User (SIU) permits and eighteen (18) Non-Significant Industrial User (NSIU) wastewater discharge permits. DC Water received monthly self-compliance monitoring reports for six (6) SIUs and one NSIU. All SIUs and NSIUs are in compliance with discharge standards for the current month.

DC Water currently manages 89 Temporary Discharge Authorization (TDA) permits, primarily for construction site discharges of groundwater and/or surface runoff in the combined sewer area. Five new TDA permits were issued this month. All TDA discharges are currently in compliance with pretreatment standards.

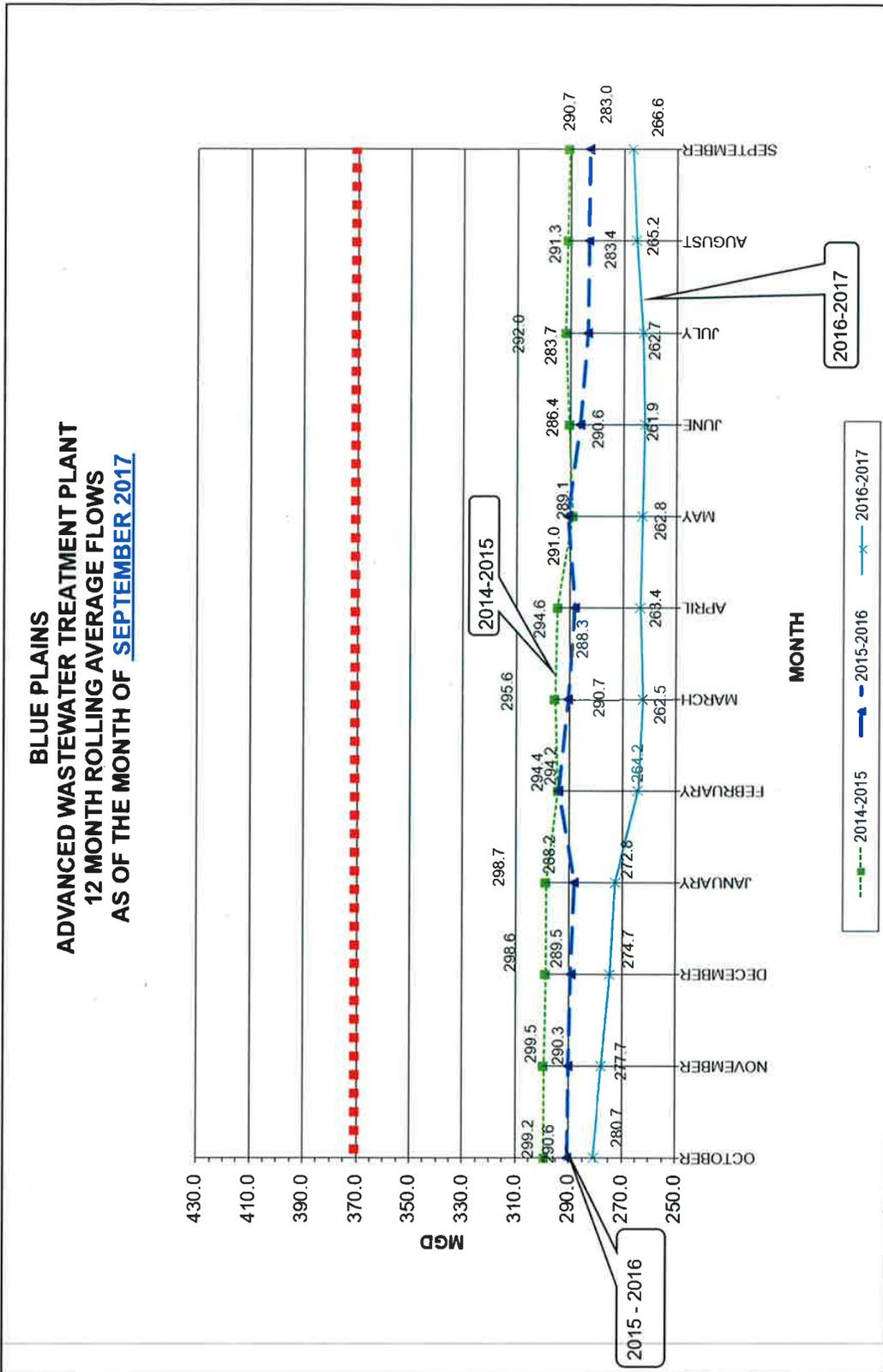
Hauled Waste Program

As of the end of the current month, the hauled waste program had 31 permitted haulers authorized to discharge domestic septage, portable toilet waste, grease trap waste, groundwater or surface runoff, and other types of waste, if approved in advance and have been characterized and meet pretreatment standards. Staff renewed three hauled waste permits this month.

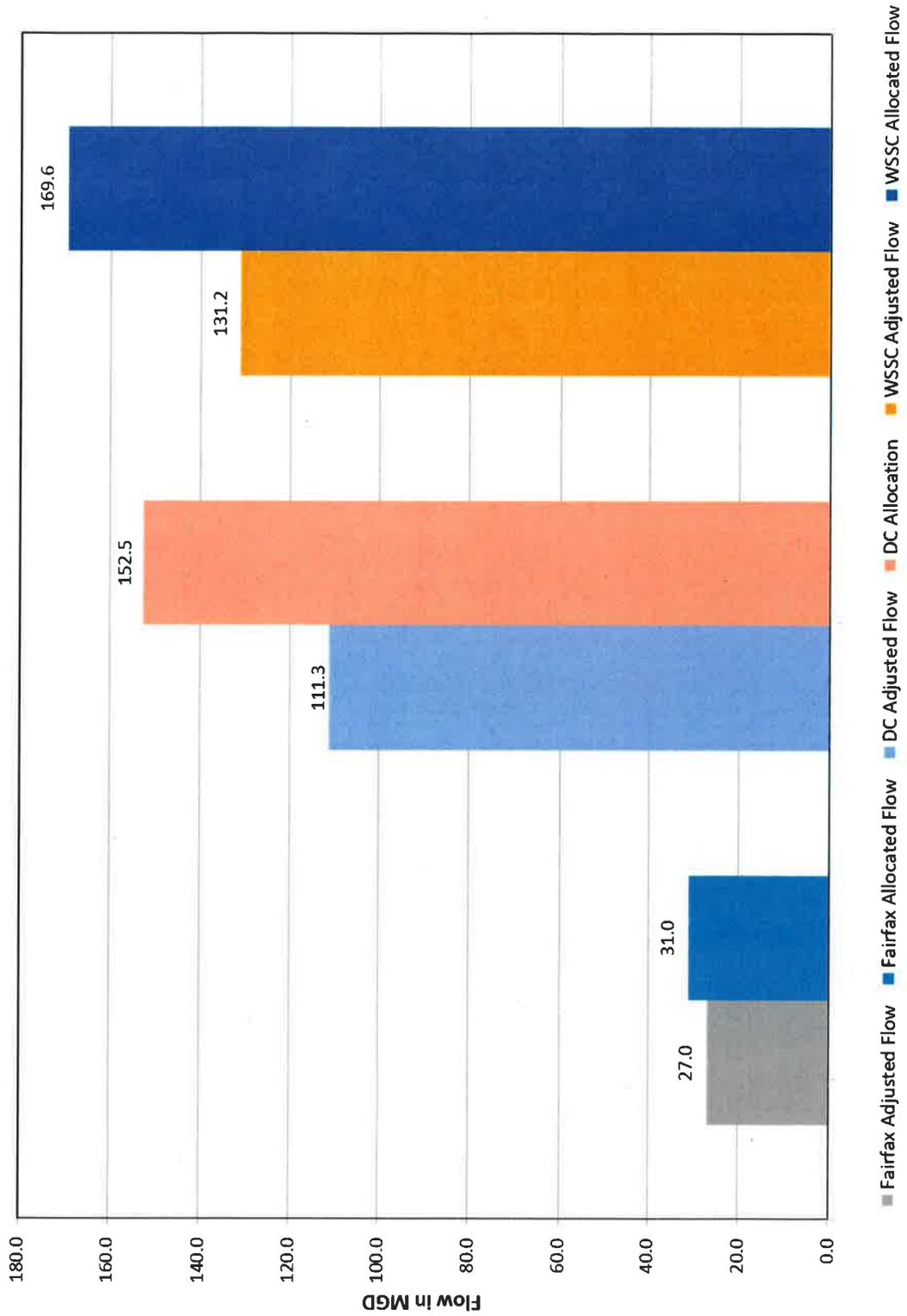
DC Water received 887 hauled waste loads (2,104,601 gallons) from permitted haulers this month. Manifest forms from each truck entering the plant are collected by the security guards and picked up daily by Pretreatment staff. Data is entered into an Excel spreadsheet to track the volume and type of loads being discharged daily and the results of sampling. Two hauled waste samples were collected this month.

NPDES Permit Sampling

Pretreatment staff collected the bimonthly metals at outfall 002 required for NPDES permit compliance, including low-level mercury sampling.



Adjusted Flows vs Allocated Flows - SEPTEMBER 2017



**District of Columbia
Water and Sewer Authority**

**Capital Improvement Program
Report**



**FY-2017 4th Quarter
July 1st through September 30th, 2017**

**Board of Directors
Environmental Quality and Operations Committee**

**George S. Hawkins, General Manager
Leonard R. Benson, Chief Engineer**

November 2017

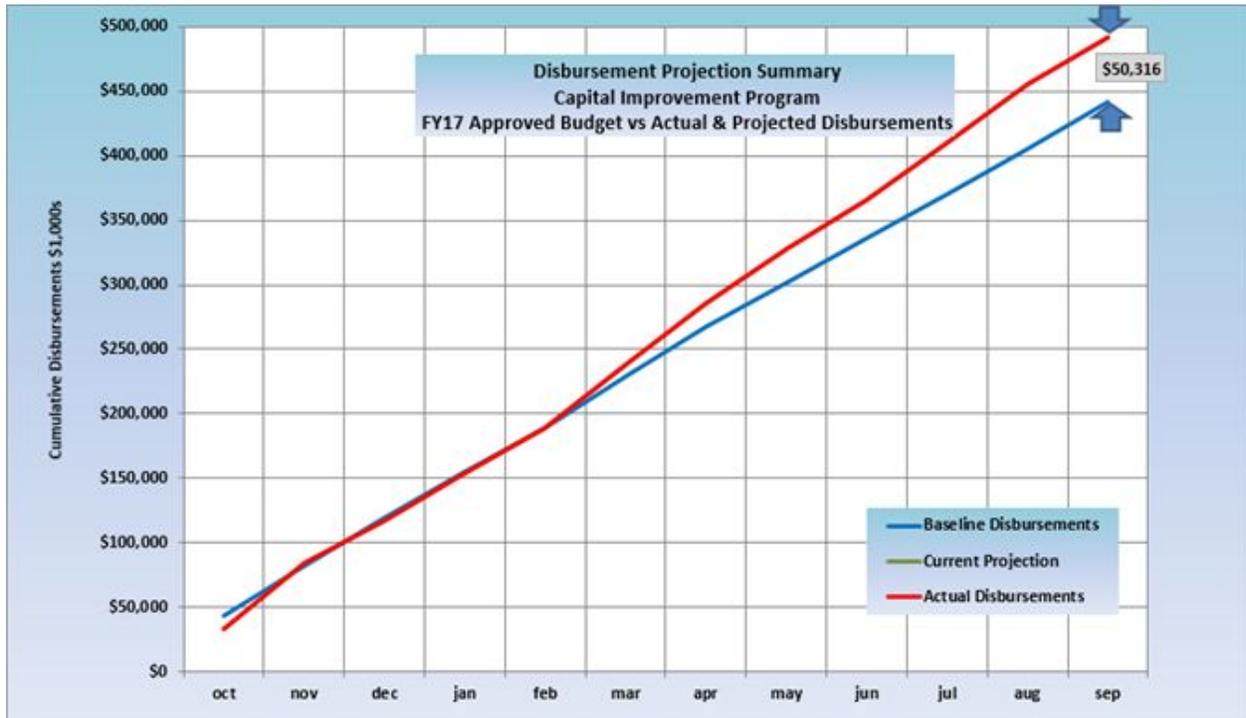


Capital Improvement Program Report 4th Quarter FY2017

CIP Disbursement Performance

The final program disbursements through the end of the fiscal year compared with the approved FY17 baseline are shown in the chart below:

Disbursement Summary



The fiscal year 2017 CIP disbursements were \$491,470,000 through the end of the fiscal year, which was \$50.3M (11%) above the baseline disbursement projection of \$441,154,000.

Final fiscal year disbursements within the service areas were as follows:

Non Process Facilities

Baseline Disbursements \$34,150,000
 Actual Disbursements \$25,189,000 (\$9.0M below baseline projection)

Significant project variances are listed below:

- *Facility Land Use (\$8.3M below baseline projection)*
 - The fiscal year disbursements for project DS – New HQ Building were lower than anticipated due to initial permitting issues for the piers in January causing delay in



Capital Improvement Program Report 4th Quarter FY2017

completing the auger piles, pile caps and thus delaying the start of steel framing. Project Completion is still expected to be on time and within budget.

Wastewater Treatment Service Area

Baseline Disbursements \$123,789,000
 Actual Disbursements \$148,104,000 (\$24.3M above baseline projection)
 Significant project variances are listed below:

- *Solids Processing Projects – (\$8.5M above baseline)*
 - The fiscal year disbursements for project XA – New Digestion Facilities were \$7.2M above the baseline largely due to retention release not being included in the baseline projection for FY17.
- *Nitrogen Removal Facilities - (\$15.5M above baseline)*
 - The disbursements for project E8 - Enhanced Clarification Facilities were \$16.2M above the baseline mainly due to greater than anticipated spending caused by contractor’s recovery efforts from slower progress and underspending in FY16.

CSO Service Area

Baseline Disbursements \$184,387,000
 Actual Disbursements \$229,425,000 (\$45.0M above baseline projection)
 Significant project variances are listed below:

- *DC Clean Rivers – (\$45.0M above baseline)*
 - The final fiscal year disbursements for project CY - Anacostia Long Term Control Plan were \$46.5M above the baseline disbursement due to a ramp up in the construction activity in order to meet the Consent Decree date of March 23rd 2018 when all Anacostia controls south of RFK stadium will be placed in operation. In addition, baseline disbursement projections did not include expenditures for risks that have materialized on the Anacostia River Tunnel job (ground inflow incident) and the First Street Tunnel job (cumulative delay impacts); resulting in an increase of spending over the baseline projections. However, risks such as these were contemplated when the contracts were procured and funds are included in the Board-approved contract amounts. As a result, it is projected that both jobs will be completed within the Board-approved contract cost.

Stormwater Service Area

Baseline Disbursements \$1,706,000
 Actual Disbursements \$1,384,000 (\$0.3M below baseline projection)
 There are no significant project variances for this service area.

Sanitary Sewer Service Area

Baseline Disbursements \$38,302,000
 Actual Disbursements \$40,059,000 (\$1.8M above baseline projection)
 There are no significant project variances for this service area.



Capital Improvement Program Report 4th Quarter FY2017

Water Service Area

Baseline Disbursements \$58,819,000

Actual Disbursements \$47,309,000 (\$11.5M below baseline projection)

Significant project variances are listed below:

- *Water Distribution Systems (\$13.0M below baseline projection)*
 - The disbursements for project O3 - Small Diameter Water Main Rehab 11 were \$7.0M below the baseline. This was partly due to postponing bids in order to improve the quantity takeoff process, and due to contractor submitting invoices late. Additionally there were some delays in construction progress.
 - The fiscal year disbursements for project DE - Small Diameter Water Main Rehab 12 were \$3.4M below the baseline. This was due to delays in awarding the SDWMR 12A contract as a result of a bid protest.



Capital Improvement Program Report 4th Quarter FY2017

Priority 1 Projects (Court Ordered, Stipulated Agreements, etc.)

All priority 1 projects are on schedule and within budget.

Significant Contract Actions Anticipated – 6 Month Look-Ahead

Project	Name	Contract Type	Joint Use?	Cost Range	Committee	BOD
F1	Small Diameter Watermain Rehab 13a	Construction	No	\$5M - \$10M	EQ&Ops Jan	Feb
J0	B Street/New Jersey Ave. Trunk Sewer Rehab and Cleaning	Construction	Yes	\$10M - \$15M	EQ&Ops Feb	Mar
DR	Low Area Trunk Sewer Rehab	Construction	Yes	\$15M - \$20M	EQ&Ops Mar	Apr
F1	Small Diameter Watermain Rehab 13d	Construction	No	\$5M - \$10M	EQ&Ops Feb	Mar
CZ	Potomac Project 1(GI) PR-A	Design-Build	No	\$5M - \$10M	EQ&Ops Mar	Apr



Capital Improvement Program Report 4th Quarter FY2017

Schedule - Key Performance Indicators, Capital Improvement Program

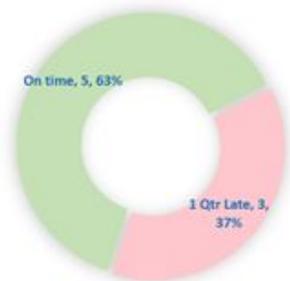
KPI Performance Through End Quarter 4



For the 4th Quarter, two of the seven Key Performance Indicators (KPIs) were achieved on time or earlier; the other five remaining planned KPIs were not achieved, as follows:

1. EE01 – *Biosolids Filtrate Treatment Fac. North* Construction Substantial completion was impacted by late receipt of critical equipment and due to owner-requested changes during the commissioning phase.
2. G100 – *Lining & Repair of Local Sewers* Construction Substantial completion was not met due to contractor performing additional emergency work and other work transferred from the Small Local Sewer Rehab 2 contract.
3. I801 – *Large Valve Replacements 11R* Construction Substantial completion was not met due to additional utility coordination and additional valve replacements added to contract.
4. DE02 – *Small Diameter Water Main Repl 12B* Construction start was not met because the design was delayed while new specification standards were being implemented to reduce cost and improve consistency.
5. LZ03 – *PI Phase 1 Pipe Rehab at Clara Barton Pkwy* The design start was moved due to National Park Service requesting that DC Water address several concerns, which required a rethinking of the original approach.

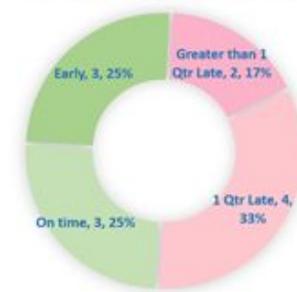
KPI Performance Through End Quarter 4
Design Start



KPI Performance Through End Quarter 4
Construction Start



KPI Performance Through End Quarter 4
Construction Substantial Completion





Capital Improvement Program Report 4th Quarter FY2017

FY2017 - KPI Report

DS	Design Start	Planned		On time	
CS	Construction Start	Early		1 Quarter Late	
CSC	Construction Substantial Completion			> 1 Quarter Late	
CO/PC	Consent Oder/Permit Compliance				

Qtr.	Project	Job Name	KPI Name	QUARTER				To Date
				1	2	3	4	
1	G800	Small Local Sewer Rehab 2	CSC					On time
1	CY25	Div P - First Street NW Branch Tunnel (Bloomingdale)	CSC					On time
1	G101	Rehab of Sewers in Georgetown	CS					On time
1	O302	Small Dia Watermain Repl 11b	CS					1 Qtr Late
1	IL10	Creekbed Sewer Rehabilitation Rock Creek Oregon Avenue	CS					On time
1	J001	B Street/New Jersey Ave. Trunk Sewer Rehab	DS					On time
1	F102	Small Diameter Water Main Repl 13B	DS					On time



Capital Improvement Program Report 4th Quarter FY2017

FY2017 - KPI Report

DS	Design Start	Planned		On time	
CS	Construction Start	Early		1 Quarter Late	
CSC	Construction Substantial Completion			> 1 Quarter Late	
CO/PC	Consent Oder/Permit Compliance				

Qtr.	Project	Job Name	KPI Name	QUARTER				To Date
				1	2	3	4	
2	GA01	Small Local Sewer Rehab 4	CSC					Greater than 1 Qtr Late
2	XA10	Biosolids Combined Heat and Power (CHP)	CSC					1 Qtr Late
2	DE01	Small Diameter Water Main Repl 12A	CS					1 Qtr Late
2	DZ02	Div RC-A - Rock Creek Project 1 (GI)	CS					On time
2	F201	Small Diameter Water Main Repl 14A	DS					On time
2	FA03	Soldiers Home Reservoir Upgrade	DS					On time
2	NG04	Stormwater Pumping Stations Rehabilitation - Non-Grant Activities	DS					1 Qtr Late



Capital Improvement Program Report 4th Quarter FY2017

FY2017 - KPI Report

DS	Design Start	Planned		On time	
CS	Construction Start	Early		1 Quarter Late	
CSC	Construction Substantial Completion			> 1 Quarter Late	
CO/PC	Consent Oder/Permit Compliance				

Qtr.	Project	Job Name	KPI Name	QUARTER				To Date
				1	2	3	4	
3	BI01	Enhanced Nitrogen Removal (ENR) North	CSC					Greater than 1 Qtr Late
3	G601	Sanitary Sewer Rehab and Repair Phase 2 (SUB)	CSC					Early
3	O301	Small Dia Watermain Repl 11a	CSC					On time
3	Q302	Pope Branch Stream Restoration and Sewer Replacement	CSC					Early
3	I802	Large Valve Replacements 12	CSC					Early
3	FQ01	FQ01 Main & O St. PS Intermediate Upgrades	CS					On time
3	CZ07	Potomac Project 1 (GI)	CS					Early
3	IM09	Joyce Road/Morrow Dr Sewer Rehabilitation	DS					1 Qtr Late



Capital Improvement Program Report 4th Quarter FY2017

FY2017 - KPI Report

DS	Design Start	Planned		On time	
CS	Construction Start	Early		1 Quarter Late	
CSC	Construction Substantial Completion			> 1 Quarter Late	
CO/PC	Consent Oder/Permit Compliance				

Qtr.	Project	Job Name	KPI Name	QUARTER				To Date
				1	2	3	4	
4	EE01	Biosolids Filtrate Treatment Facilities	CSC					1 Qtr Late
4	G100	Lining & Repair of Local Sewers	CSC					1 Qtr Late
4	I801	Large Valve Replacements 11R	CSC					1 Qtr Late
4	CY14	Div J - Northeast Boundary Tunnel	CS					On time
4	DE02	Small Diameter Water Main Repl 12B	CS					1 Qtr Late
4	LZ03	PI Phase 1 Pipe Rehab at Clara Barton Pkwy	DS					1 Qtr Late
4	F202	Small Diameter Water Main Repl 14B	DS					On time

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

ACTION REQUESTED

**GOODS AND SERVICES CONTRACT MODIFICATION
IT PROFESSIONAL SERVICES**

(Joint Use)

Approval to execute a contract modification to add funding to the contract base period in the amount of \$939,000.00 for IT professional service projects.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Advance Digital Systems, Inc. (ADS) 4290 Chain Bridge Road, Suite 200 Fairfax, VA-22030 LSBE	SUBS: N/A	PARTICIPATION: 100%
--	---------------------	-------------------------------

DESCRIPTION AND PURPOSE

Original Contract Value:	\$500,000.00
Original Contract Dates:	05-01-2017 – 04-30-2018
No. of Option Years in Contract:	2
Modification No. 1 Value:	\$189,000.00
Modification No. 1 Dates:	08-07-2017 – 04-30-2018
Modification No. 2 Value:	\$286,000.00
Modification No. 2 Dates:	11-01-2017– 04-30-2018
This Modification Value:	\$939,000.00
This Modification Dates:	12-01-17 – 04-30-2018

Purpose of the Contract:

ADS was selected to provide Information Technology Professional Services. An Indefinite Delivery Indefinite Quantity (IDIQ) contract was executed with ADS. The IDIQ contract provides resources for staff augmentation and long and short-term projects. These services are used when it is not feasible for DC Water to permanently hire staff for projects of short duration and where specialized or unique skills are required. There is no guaranteed spend with any of the selected vendors.

Original Contract Scope:

To provide IT professional and staff augmentation services on an as-needed basis. There are several projects that have multiple assignments as follows:

<p>Maximo Software</p> <ul style="list-style-type: none"> • Integration of Kona Field Service • Maximo Anywhere for Plant Operations • Customer Information Billing System Integration <p>Geographical Information System (GIS)</p> <ul style="list-style-type: none"> • Integration of GIS with the Customer Information Billing System <p>Project Management</p> <ul style="list-style-type: none"> • LiveLink Upgrade • Mobility Blue Plains Operations • Mobility Field Operations • Connected Drinking Fountains • Customer Information System 	<p>Local Area (LAN)/Wide Area Network (WAN)</p> <ul style="list-style-type: none"> • Supervisory Control and Data Acquisition System (SCADA) • Disaster Recovery • Daily Maintenance of DC Water internal and external network • Windows Administration <ul style="list-style-type: none"> ➢ Remote Access ➢ Support for Customer Information System ➢ Daily maintenance of DC Water internal network ➢ Storage Administration ➢ Disaster Recovery
---	---

Reason for Change:

This modification will allow DC Water to continue to use the contract to fulfill IT professional and staff augmentation services requirements through April 30, 2018.

Spending Previous Year:

Cumulative Contract Value:	05-01-2017 to 04-30-2018: \$975,000.00
Cumulative Contract Spending:	05-01-2017 to 09-30-2017: \$459,391.50

Contractor's Past Performance:

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

BUDGET INFORMATION			
Funding:	Capital Equipment	Department:	Information Technology
Project Area:	DC Water Wide	Department Head:	Thomas Kuczynski
Project:	EQP2115		

ESTIMATED USER SHARE INFORMATION		
User – Capital Equipment	Share %	Dollar Amount
District of Columbia	68.91%	\$258,825.96
Washington Suburban Sanitary Commission	24.14%	\$90,669.84
Fairfax County	4.51%	\$16,939.56
Loudoun Water	2.01%	\$7,549.56
Other (PI)	0.43%	\$1,615.08
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$375,600.00

BUDGET INFORMATION			
Funding:	Operating	Department:	Information Technology
Project Area:	DC Water Wide	Department Head:	Thomas Kuczynski

User – Operating	Share %	Dollar Amount
District of Columbia	83.65%	\$471,284.10
Washington Suburban Sanitary Commission	12.07%	\$68,002.38
Fairfax County	2.84%	\$16,000.56
Loudoun Water	1.25%	\$7,042.50
Other (PI)	0.19%	\$1,070.46
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$563,400.00

User – Combined	Share %	Dollar Amount
District of Columbia	77.75%	\$730,110.06
Washington Suburban Sanitary Commission	16.90%	\$158,672.22
Fairfax County	3.51%	\$32,940.12
Loudoun Water	1.55%	\$14,592.06
Other (PI)	0.29%	\$2,685.54
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$939,000.00

NOTE: The User Share percentages in the final table are estimates based on the expected work to be performed under this contract.

Joseph M. Edwards (acting) / 11/9/17
 Thomas Kuczynski Date
 Chief Information Officer

[Signature] / 11/9/17
 Dan Bae Date
 Director of Procurement

Matthew T. Brown / 11/9/2017
 Matthew T. Brown Date
 Chief Financial Officer

_____/_____
 George S. Hawkins Date
 General Manager

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT MODIFICATION

IT PROFESSIONAL SERVICES

(Joint Use)

Approval to execute a contract modification to add funding to the contract base period in the amount of \$985,000.00 for IT professional service projects.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Networking for Future, Inc. (NFF) 1331 Pennsylvania Avenue, Suite 1210 Washington, DC 20004 LSBE	SUBS: N/A	PARTICIPATION: 100%
--	---------------------	-------------------------------

DESCRIPTION AND PURPOSE

Original Contract Value:	\$500,000.00
Original Contract Dates:	05-01-2017 – 04-30-2018
No. of Option Years in Contract:	2
Modification No. 1 Value:	\$250,000.00
Modification No. 1 Dates:	08-16-2017 – 04-30-2018
Modification No. 2 Value:	\$240,000.00
Modification No. 2 Dates:	011-01-2017 – 04-30-2018
This Modification Value:	\$985,000.00
This Modification Dates:	12-01-17 – 04-30-2018

Purpose of the Contract:

NFF was selected to provide Information Technology Professional Services. An Indefinite Delivery Indefinite Quantity (IDIQ) contract was executed with NFF. The IDIQ contract provides resources for staff augmentation and long and short-term projects. These services are used when it is not feasible for DC Water to permanently hire staff for projects of short duration and where specialized or unique skills are required. There is no guaranteed spend with any of the selected vendors.

Original Contract Scope:

To provide IT professional and staff augmentation services on an as-needed basis. Currently, NFF provides daily help desk support, project management for the e-permits project, the migration of SharePoint on premise to SharePoint on-line and systems administration.

Reason for Change:

This modification will allow DC Water to continue to use the contract to fulfill IT professional and staff augmentation services requirements through April 30, 2018.

Spending Previous Year:

Cumulative Contract Value:	05-01-2017 to 04-30-2018: \$990,000.00
Cumulative Contract Spending:	05-01-2017 to 09-30-2017: \$564,585.59

Contractor's Past Performance:

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

PROCUREMENT INFORMATION

Contract Type:	Firm Fixed Rate	Award Based On:	Highest Rating
Commodity:	Professional Services	Contract Number:	17-PR-DIT-06G
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Capital Equipment	Department:	Information Technology
Project Area:	DC Water Wide	Department Head:	Thomas Kuczynski
Project:	EQP2115		

ESTIMATED USER SHARE INFORMATION

User – Capital Equipment	Share %	Dollar Amount
District of Columbia	68.91%	\$271,505.40
Washington Suburban Sanitary Commission	24.14%	\$95,111.60
Fairfax County	4.51%	\$17,769.40
Loudoun Water	2.01%	\$7,919.40
Other (PI)	0.43%	\$1,694.20
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$394,000.00

BUDGET INFORMATION

Funding:	Operating	Department:	Information Technology
Project Area:	DC Water Wide	Department Head:	Thomas Kuczynski

User – Operating	Share %	Dollar Amount
District of Columbia	83.65%	\$494,371.50
Washington Suburban Sanitary Commission	12.07%	\$71,333.70
Fairfax County	2.84%	\$16,784.40
Loudoun Water	1.25%	\$7,387.50
Other (PI)	0.19%	\$1,122.90
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$591,000.00

User – Combined	Share %	Dollar Amount
District of Columbia	77.75%	\$765,876.90
Washington Suburban Sanitary Commission	16.90%	\$166,445.30
Fairfax County	3.51%	\$34,553.80
Loudoun Water	1.55%	\$15,306.90
Other (PI)	0.29%	\$2,817.10
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$985,000.00

NOTE: The User Share percentages in the final table are estimates based on the expected work to be performed under this contract.

Joseph M. Edwards (acting) / 11/9/17
 Thomas Kuczynski
 Chief Information Officer
 Date

[Signature] / 11/9/17
 Dan Bae
 Director of Procurement
 Date

[Signature] / 11/9/2017
 Matthew T. Brown
 Chief Financial Officer
 Date

_____/_____
 George S. Hawkins
 General Manager
 Date

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT OPTION YEAR

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

Approval to exercise option year one (1) and add funding to the Repair and Rehabilitation of Various Process Assets contract in the amount of \$2,076,186.00

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Electric Motor & Contracting Co., Inc.(EMC) 3728 Profit Way Chesapeake, 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
Prior Modification Value:	\$700,000.00
This Modification Dates:	05-05-2017 – 12-31-2017
Option Year 1 Value:	\$2,076,186.00
Option Year 1 Dates:	01-01-2018 – 12-31-2018

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:

The contract scope covers major overhauls and preventive maintenance necessary to ensure the availability of identified equipment for reliable operation. The amount of this request for DMS is similar to spending for the base year and for DDCS the amount of this request is limited due to budget constraints. The requested funding will cover emergency repair and previously-forecasted maintenance of mechanical and electrical equipment at DC Water facilities

Savings:

Exercising the option year of the contract presents DC Water with projected cost savings of at least \$120,000.00 based on negotiated volume tier discounts. Other savings include: an extended warranty of 18 months from 12 months; extended warranty during controlled storage; and 1 technical workshop at EMC location as and when required by DC Water team

Spending Previous Year:

Cumulative Contract Value:	01-01-2017 to 01-01-2018: \$2,850,000.00
Cumulative Contract Spending:	01-01-2017 to 10-25-2017: \$2,697,646.91

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:	EQP 4830	Department Head:	Salil Kharkar

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.22%	\$618,300.00
Washington Suburban Sanitary Commission	45.84%	\$687,600.00
Fairfax County	8.38%	\$125,700.00
Loudoun Water	3.73%	\$55,950.00
Other (PI)	0.83%	\$12,450.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$1,500,000.00

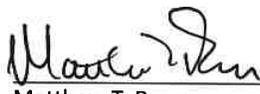
BUDGET INFORMATION

Funding:	Capital Equipment	Department:	DCCS
Service Area:	EQP 4210	Department Head:	Charles Sweeney

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$576,186.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun Water	0.00%	\$0.00
Other (PI)	0.00%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$576,186.00


 Akliye Tesfaye
 Assistant General Manager,
 Blue Plains
 Date: 11/8/17


 Matthew T. Brown
 Chief Financial Officer
 Date: 11/9/2017


 Charles Kiely
 Assistant General Manager,
 Customer Care & Operations
 Date: 11/7/17

 George S. Hawkins
 General Manager
 Date


 Dan Bae
 Director of Procurement
 Date: 11/7/17

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT OPTION YEAR

**Underground Utility Locating and Marking
(Joint Use)**

Approval to add funding for Option Year 1 and Option Year 2 for the Underground Utility Locating and Marking contract in the amount of \$1,353,130.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Dynamic Concepts, Inc. 1730 17th Street, NE Washington, DC 20002 LSBE	SUBS: N/A	PARTICIPATION: 100%
---	---------------------	-------------------------------

DESCRIPTION AND PURPOSE

Base Period Contract Value:	\$784,065.00
Original Contract Dates:	10-1-2016 – 9-30-2017
No. of Option Years in Contract:	2
Option Year 1 Value:	\$215,000.00
Option Year 1 Dates:	10-1-2017 – 9-30-2018
Option Year 1 Modification Value:	\$569,065.00
Option Year 1 Modification Dates:	12-11-2017 – 9-30-2018
Option Year 2 Value:	\$784,065.00
Option Year 2 Dates:	10-1-2018 – 9-30-2019

Purpose of the Contract:

To provide the resources required to locate, identify, and appropriately mark underground utilities prior to excavation work being conducted in the vicinity of these utilities.

To ensure continuity of operations, Option Year One for this contract was executed on October 1, 2017 with a portion of the required funding for the fiscal year, \$215,000.00. This request will approve the remaining funding required for Option Year One, \$596,065.00, as well as the full amount of funding required for Option Year 2, \$784,065.00, for a total of \$1,353,130.00.

Contract Scope:

This contract provides DC Waters Department of Sewer Services and Department of Water Services with the labor, management, supervision, personnel, and equipment required to locate, identify, and appropriately mark underground utilities prior to excavation work being conducted in the vicinity of these utilities within DC, Maryland and Virginia

Spending Previous Year:

Cumulative Contract Value:	10-1-2016 to 9-30-2017: \$784,065.00
Cumulative Contract Spending:	10-1-2016 to 9-30-2017: \$685,534.00

Contractor's Past Performance:

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

PROCUREMENT INFORMATION

Contract Type:	Fixed Unit Price	Award Based On:	Highest-Ranking Score
Commodity:	Services	Contract Number:	16-PR-DSS-63
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Joint Use - Indirect - Operating	Department:	Sewer Services/Water Services,
Project Area:	Sewer Services	Department Head:	Jason Hughes

ESTIMATED USER SHARE INFORMATION

User - Operating	Share %	Dollar Amount
District of Columbia	83.65%	\$1,131,893.25
Washington Suburban Sanitary Commission	12.07%	\$163,322.79
Fairfax County	2.84%	\$38,428.89
Loudoun County	1.25%	\$16,914.13
Potomac Interceptor	0.19%	\$2,570.95
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$1,353,130.00


 Charles Kiely
 Assistant General Manager,
 Customer Care and Operations
 11/7/17
 Date


 Dan Bae
 Director of Procurement
 11/7/17
 Date


 Matthew T. Brown
 Chief Financial Officer
 11/9/2017
 Date

 George S. Hawkins
 General Manager
 Date

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT OPTION YEAR

**Supply and Delivery of Dewatering Polymers
(Joint Use)**

Approval to exercise option year 2 for the dewatering polymers supply and delivery contract in the amount of \$1,733,200.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Polydyne, Inc. One Chemical Plant Road Riceboro, GA 31323	SUBS:	PARTICIPATION:
--	--------------	-----------------------

DESCRIPTION AND PURPOSE

Original Contract Value:	\$1,575,000.00
Original Contract Dates:	10-01-2015 – 09-30-2016
No. of Option Years in Contract:	2
Prior Modifications Value:	\$422,752,00
Prior Modifications Dates:	01-08-2016 – 12-31-2016
Option Year 1 Value:	\$1,860,603.00
Option Year 1 Dates:	01-01-2017 – 12-31-2017
Option Year 2 Value:	\$1,733,200.00
Option Year 2 Dates:	01-01-2018 – 12-31-2018

Purpose of the Contract:

To purchase and receive the belt press polymers. These polymers help to reduce the water content and increase solids content of the Class A biosolids.

Contract Scope:

DC Water consumes dewatering polymers continuously. The polymers supplied under this contract are used in the Final Dewatering Facility at the Blue Plains Advanced Wastewater Treatment Facility.

In the belt press dewatering operations, polymers are used to help remove water from biosolids after the digestion process. Dewatering biosolids improves the quality of this important co-product by increasing the solids content.

Spending Previous Year:

Cumulative Contract Value:	10-01-2015 to 12-31-2017: \$3,853,355.00
Cumulative Contract Spending:	10-01-2015 to 10-25-2017: \$3,635,629.00

Contractor's Past Performance:

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

No LSB/LSBE participation

PROCUREMENT INFORMATION

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

BUDGET INFORMATION

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

ESTIMATED USER SHARE INFORMATION

User - Operating	Share %	Dollar Amount
District of Columbia	41.92%	\$726,557.44
Washington Suburban Sanitary Commission	43.33%	\$750,995.56
Fairfax County	9.81%	\$170,026.92
Loudoun Water	4.29%	\$74,354.28
Other (PI)	0.65%	\$11,265.80
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$1,733,200.00

 / 11/6/17
 Akile Tesfaye Date
 Assistant General Manager,
 Blue Plains

 11/7/17
 Dan Bae Date
 Director of Procurement

 11/8/2017
 Matthew T. Brown Date
 Chief Financial Officer

_____/_____
 George S. Hawkins Date
 General Manager

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

ACTION REQUESTED

ENGINEERING SERVICES SUPPLEMENTAL AGREEMENT:

**Poplar Point Pumping Station Replacement
(Joint Use)**

Approval to execute Supplemental Agreement No. 03 for \$890,000.00. The modification exceeds the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
O'Brien and Gere Engineers, P.C. 4201 Mitchellville Road Bowie, MD 20716	Bryant Associates, Inc. Hyattsville, MD Phoenix Engineering, Inc. Parkton, MD	MBE 28.0% WBE 4.0%
<u>Headquarters</u> Syracuse, NY 13221		

DESCRIPTION AND PURPOSE

Original Contract Value:	\$3,200,000.00
Value of this Supplemental Agreement:	\$ 890,000.00
Cumulative SA Value, including this SA:	\$3,442,336.00
Current Contract Value, including this SA:	\$6,642,336.00
Original Contract Time	1750 Days (4 Years, 10 Months)
Time Extension, this SA:	90 Days
Total SA Time Extension:	687 Days (1 Year, 11 Months)
Contract Start Date:	01-26-2012
Contract Completion Date:	09-28-2018

Purpose of the Contract:

Provide engineering design and related services for a new pumping station to replace the existing deteriorating Poplar Point Pumping Station that has been in operation since 1915. The work also includes replacement of the existing Barry Road Sewer crossing I-295 which has failed.

This work is required to comply with a Consent Decree and DC Water's NPDES Permit.

Original Contract Scope:

- Provide civil, architectural, mechanical process, HVAC, instrumentation, and electrical design services, and support activities, and preparation of contract documents for Poplar Point Pumping Station Replacement, approximately 1,000 lineal feet of trenchless 54-inch sewer and approximately 400 lineal feet of sewer from Barry Road to the pumping station crossing I-295.

Current Supplemental Agreement Scope:

- Provide additional engineering services during construction due to unforeseen construction contractor construction delays including more than quadruple the planned number of reviews of construction submittals and reviewing more than six times the planned number of requests for interpretation (RFIs), some dealing with differing site conditions, which were not included in original scope or previous Supplemental Agreements (SA). The additional work of this SA is only for the Poplar Point Pumping Station since the Barry Road Sewer is essentially complete.

Future Supplemental Agreement Scope:

- No future supplemental agreement is anticipated at this time.

ORIGINAL CONTRACT PROCUREMENT INFORMATION

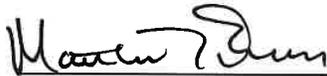
Contract Type:	Lump Sum/ Cost Plus Fixed Fee	Award Based On:	Highest Ranking Score
Commodity:	Engineering Services	Contract Number:	DCFA-445
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	Department:	DC Clean Rivers Project
Service Area:	Combined Sewer	Department Head:	Carlton M. Ray
Project:	CY		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	90.00%	\$801,000.00
Federal Funds	0.00%	\$
Washington Suburban Sanitary Commission	10.00%	\$ 89,000.00
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	\$
Total Estimated Dollar Amount	100.00%	\$890,000.00

 11/19/2017
 Matthew T. Brown Date
 Chief Financial Officer

 11/15/17
 Dan Bae Date
 Director of Procurement

 11-09-17
 Leonard R. Benson Date
 Chief Engineer

_____/_____
 George Hawkins Date
 General Manager

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

ACTION REQUESTED

CONSTRUCTION CONTRACT CHANGE ORDER:

**Inspection and Heavy Cleaning of Oxon Run
(Joint Use)**

Approval to execute Change Order No. 01 for \$116,800.00. The cumulative contract amount will exceed the General Manager's approval authority of \$1,000,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Mobile Dredging & Video Pipe Services 11420 Old Baltimore Pike Beltsville, MD 20705	HSA, Inc. Washington, DC MBE	6.4%
	Marine Technologies, Inc. Baltimore, MD	9.6%

DESCRIPTION AND PURPOSE

Original Contract Value:	\$ 907,475.00
Value of this Change Order:	\$ 116,800.00
Cumulative CO Value, including this CO:	\$ 116,800.00
Current Contract Value, including this CO:	\$1,024,275.00
Original Contract Time:	548 Days (1 Years, 6 Months)
Time extension, this CO:	0 Days
Total CO contract time extension:	0 Days
Contract Start Date (NTP):	04-25-2017
Anticipated Contract Completion Date:	09-10-2018
Cumulative CO % of Original Contract:	12.9%
Contract completion %:	6.0%

Purpose of the Contract:

Cleaning and combined post CCTV/Sonar inspection of sewers, and to inspect seventy manhole structures.

Original Contract Scope:

- Cleaning and Post CCTV/Sonar Inspection of approximately:
 - 4,020 linear feet of sewers (24"-42" inch diameter)
 - 2,950 linear feet of sewers (48 - 66" diameter)
- Combined CCTV/Sonar Inspection of approximately:
 - 670 linear feet of sewers (27" - 48" diameter)
 - 1,020 linear feet of siphons (36" - 54" diameter)
- Inspection of approximately 70 manholes and structures.

Current Change Order Scope:

Locate and remove obstruction found during the CCTV inspection of the Lower Oxon Run Interceptor. Blockage has caused surcharged conditions within the sewer and has created potential for a sanitary sewer overflow during wet weather conditions.

- Plug Installation
 - Utilize dive team, and in accordance with the approved dive plan, install pillow plug into the 48-inch influent line in MH 56504.
- De-water
 - De-water pipeline(s) between MH 56504 and the obstruction utilizing a 6-inch trash pump, and lay-flat hose. Discharge to be pumped directly to the Outfall Relief Sewer.

- CCTV Inspection
 - Inspect 48-inch sewer utilizing CCTV from MH 56504 downstream. Identify the location of the obstruction and characterize the blockage material. Document the inspection by video and still photographs.
 - If the obstruction is occurring beyond the 36-inch (flushing line) branch connection, attempt inspection of the 36-inch. If the obstruction is located before the branch connection perform CCTV inspection of the 36-inch flushing line from the outfall sewer, upstream to confirm valve position.
 - Prepare a summary report that describes the location and type of debris, and recommend a methodology for cleaning/removal of the obstruction.
- Cleaning/Obstruction Removal
 - Facilitate the removal of the obstruction by hydraulic/mechanical means as necessary. Protect debris from entry into outfall relief sewer by cleaning from MH 56504 and pulling the debris back.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	Award Based On:	Lowest responsive, responsible bidder
Commodity:	Construction	Contract Number:	160150
Contractor Market:	Open Market		

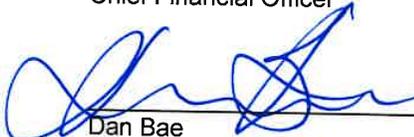
BUDGET INFORMATION

Funding:	Capital	Department:	Engineering and Technical Services
Service Area:	Sanitary	Department Head:	Craig Fricke
Project:	DN		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.59%	\$ 48,577.12
Washington Suburban Sanitary Commission	58.41%	\$ 68,222.88
Fairfax County	0.00%	\$
Loudoun County & Potomac Interceptor	0.00%	\$
Total Estimated Dollar Amount	100.00%	\$116,800.00


 _____ 11/9/2017
 Matthew T. Brown Date
 Chief Financial Officer


 _____ 11/12/17
 Dan Bae Date
 Director of Procurement


 _____ 11-08-17
 Leonard R. Benson Date
 Chief Engineer

_____ / _____
 George S. Hawkins Date
 General Manager

Washington Aqueduct Update

Presented to

DC Water

Environmental Quality and
Operations Committee

November 16, 2017



Washington Aqueduct

Customers

- **Wholesale Customer Board Members:**
 - George S. Hawkins, General Manager, DC Water
 - Mark Schwartz, County Manager, Arlington County, Virginia
 - Charles Murray, General Manager, Fairfax Water

- **Board and Committee Meetings:**
 - Annual principals meeting in September to approve budget
 - Quarterly Technical Committee

Topics to be Covered

- Service Area, Infrastructure, and Governance
- Washington Aqueduct Priorities
- Critical Infrastructure Risk Management Project
- Advanced Treatment Project
- President's Fiscal Year 2018 Budget Proposal for Divestiture of Washington Aqueduct

Washington Aqueduct Service Area



3 Wholesale Customers

- DC Water
- Arlington Co., VA
- Fairfax Water

147 sq mi
1 million
customers

Water Supply



Great Falls Intake



Little Falls Pumping Station



Dalecarlia Reservoir

(pre-sedimentation)

In from Little Falls
(pumped)

In from Great Falls
(gravity)

Out to Dalecarlia Plant
(~ 60%)

Out to McMillan Plant
(~ 40%)



Dalecarlia Water Treatment Plant



Dalecarlia Water Treatment Plant



Treats between 100-160 million gallons per day

Georgetown Sedimentation Basins



McMillan Water Treatment Plant



McMillan Water Treatment Plant



Treats between 60 - 120 Million gallons per day

Residuals Disposal



Governance

- Owned and operated by the US Army Corps of Engineers since 1853
- Business-like entity
 - No Federal funds, no profit, and no retained earnings
 - Cost of O&M (~ \$48 million/year) passed to customers as a water rate
 - Capital Costs (~\$14-15 million/year) allocated to customers
- Strategic direction and budget approval by Wholesale Customer Board
- Regulated as a community water system by the U.S. Environmental Protection Agency (Region 3)

Washington Aqueduct Priorities

- Deliver Safe, Reliable, and Cost Effective Drinking Water
- Operate for the Benefit of the Wholesale Customers and the Nation's Capital
- Continually Improve Operational Excellence
- Recruit and Retain Exceptional Employees

Critical Infrastructure Assessment

- Resiliency
- Critical Customer Identification
- Mitigation

Travilah Quarry

- Could provide up to 14 days of off-Potomac storage to be used by regional utilities if Potomac River is unavailable.
- Essentially solves the problem of not having water supply available to the nation's capital.



Advanced Treatment

➤ Short term objectives

- Enhance current capabilities
 - Powdered activated carbon (taste and odor)
 - McMillan North Clearwell rebuild with provision for later processes
 - Outfit uncommissioned Dalecarlia filters in the West Filter Building. This provides less dependence on the 95 year old filters in the East Filter Building.

Advanced Treatment

- First phase of Advanced treatment will Increase reliability and resiliency
 - Incorporate Ozone and Biologically Active Filtration at McMillan.
 - Incorporate UV disinfection at Dalecarlia

Advanced Treatment

- Second Phase of Advanced treatment will enhance pathogen removal and make treatment at both plants equivalent.
 - Incorporate UV disinfection at McMillan
 - Incorporate Ozone and Biologically Active Filtration at Dalecarlia

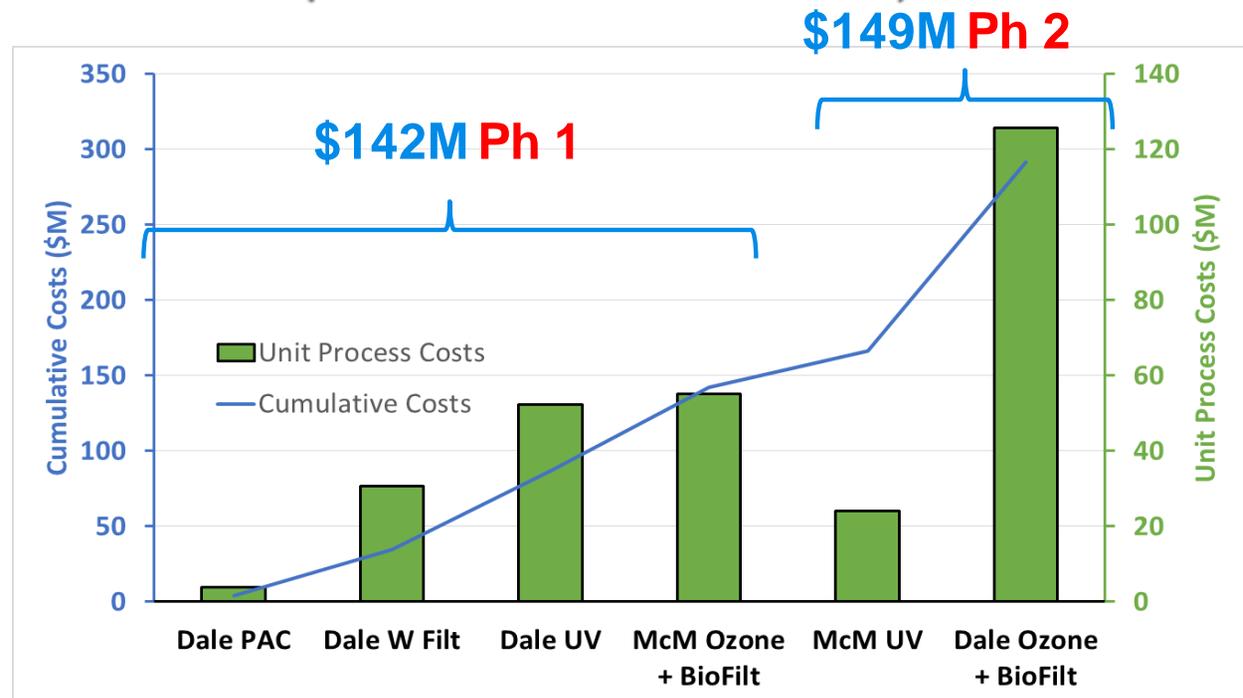
Advanced Treatment Proposed Sequencing

Estimated Cost (FY16 dollars) – subject to refinement (September 11, 2017)

Does not include cost of North Clearwell Replacement (estimated at \$40 million)

- At the end of the second phase both plants have the same treatment processes.
- The grouping of the elements addresses the most pressing treatment issues at Dalecarlia and McMillan respectively.
- Each phase could be built and funded independently (with design coordination to allow separate construction awards).

Unit Processes	Cost (\$M)
Dalecarlia PAC Impr.	4
Dale +10 West Biofilters	31
Dalecarlia UV	52
McMillan Biofiltration	26
McMillan Ozone	29
McMillan UV	24
Dalecarlia Intermediate Pumping	30
Dalecarlia Biofiltration	46
Dalecarlia Ozone	50



Advanced Treatment

➤ Piloting

- Evaluating manganese control, Dissolved Air Flotation and other techniques at desktop scale
- Bench scale studies of ozone demand and decay and biostability.
- Physically pilot ozone/biological active filtration and UV

Pilot Schedule

Plant	Task	Years from NTP (8/1/17)	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25
		Description Month/Year	11/17	2/18	5/18	8/18	11/18	2/19	5/19	8/19	11/19	2/20	5/20	8/20	11/20
	1	Project Plan													
	2	Desktop Studies													
	3	Bench Testing													
McM	4A	Procure Lead Loops & Ozone/BAF/UV, Commission													
		Acclimate Loops													
	4B	O3/BAF Pilot Testing Part 1													
Dale	5	Procure Lead Loops & UV, Commission													
		Acclimate Loops													
	6	Report													

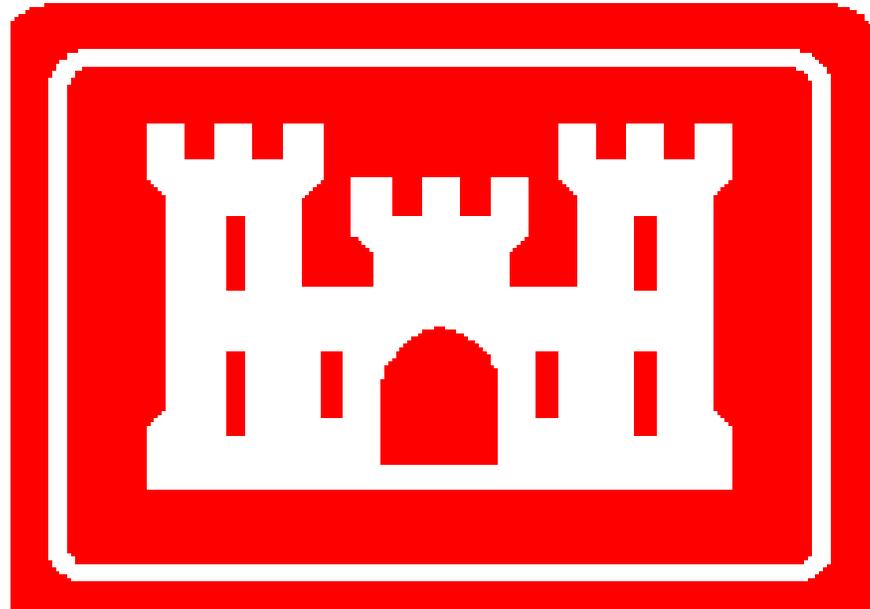
Schedule updated 9/11/2017

Divesture Proposal

- OMB plans to submit legislation to the Congress describing a divestment procedure.
- As was done in 1995, Washington Aqueduct will continue to do its job carefully and efficiently and continue to make improvements while others decide on best course to follow.

Operating for the Benefit of the Wholesale Customers

...and the Nation's Capital



Washington Aqueduct
Baltimore District
US Army Corps of Engineers

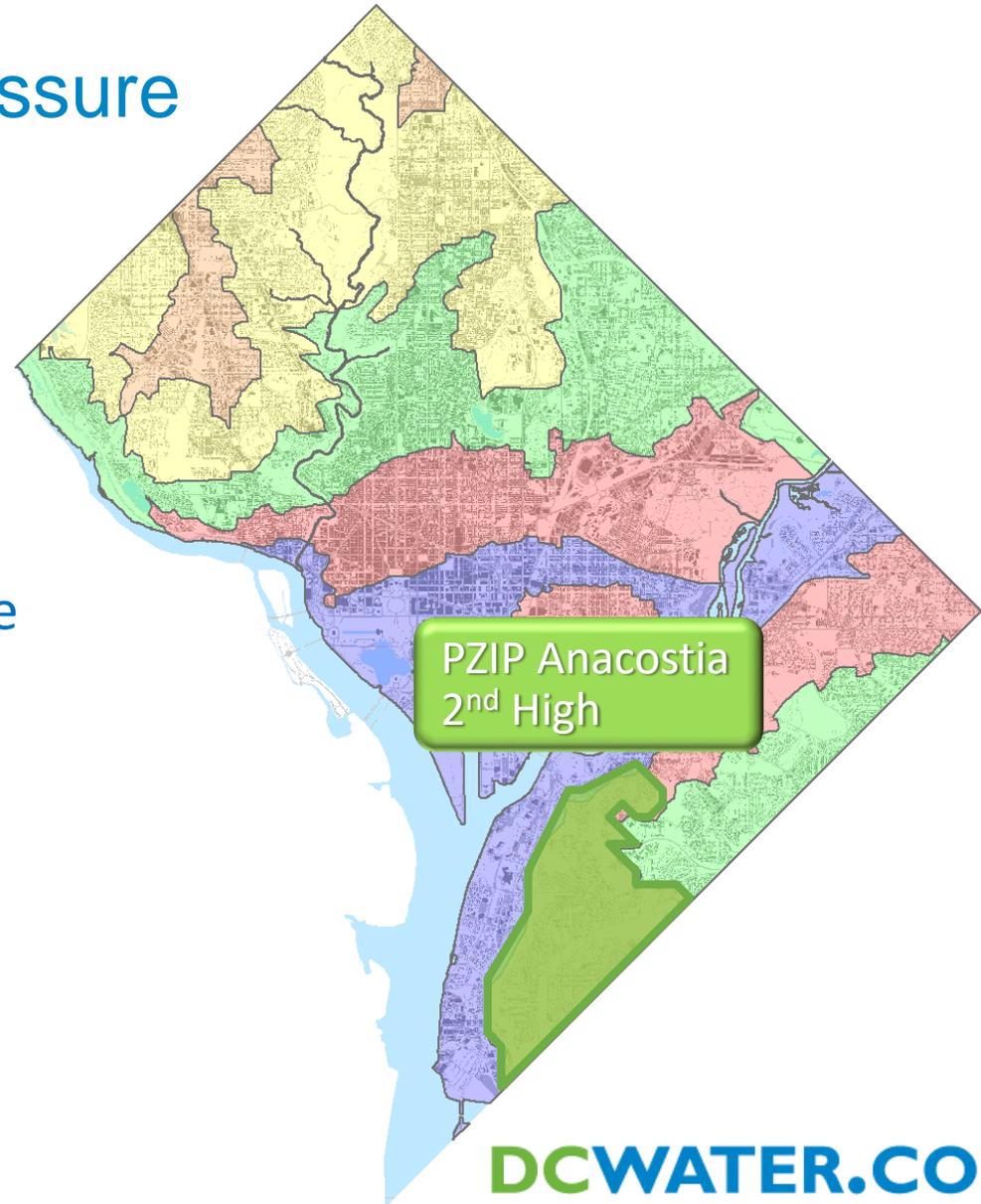


District of Columbia Water and Sewer Authority
George S. Hawkins, General Manager

Anacostia 2nd High Pressure Zone Improvement Program (**A2H PZIP**)

Prepared for
DC Water's EQ & Ops Committee

Prepared by
Deidre Saunders, Construction Manager
Engineering and Technical Services and
Jason Garz, Water Program Manager
Mott MacDonald



November 16, 2017

DCWATER.COM

Purpose of Anacostia 2nd High PZIP

- To address historically low water pressure in areas of southeast DC
 - Improve system reliability
 - Increase water pressure
 - Improve fire flows
- Solution
 - Create new pressure zone by dividing Anacostia 1st High into **Anacostia 1st High** and **Anacostia 2nd High**
 - Raise water pressure in Anacostia 2nd High by 22 psi
 - Implemented water system capital improvements over the last 10 years, cost of \$97 million to achieve this goal



Capstone Project Under Construction

- St. Elizabeths 2 MG Elevated Water Tower in southeast DC
 - Construction began April 2016
 - Composite construction selected for aesthetics – concrete pedestal and steel bowl
 - 152-ft overall height
 - 98-ft diameter welded steel tank
 - 48-ft diameter concrete pedestal
 - Projected operational start - April 2018

Raising of Steel Bowl – 9/13



Capstone Project Under Construction

- Model shows residences will require pressure reducing valves
 - 861 signed agreements as of 11/3/17
 - 413 PRVs installations completed as of 11/3/17
 - Projected completion date - April 2018



On-Going Key Projects and Tasks Required to Commission New Zone

- Anacostia Pump Station Readiness
- Transmission mains and boundary valves
- Complete construction of St. Elizabeths 2 MG water tower and connecting 24-inch transmission main
- Continued public outreach - all levels
 - Extended warranty
 - Limited drywall restoration



Thank you



Questions

&

Answers