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, May 17, 2018
9:00 a.m.

	I.	**Call to Order**	James Patteson Chairperson
9:00 a.m.	**II.**	**Solar Purchase Agreement (PPA)**	Diala Dandach
9:10 a.m.	**III.**	**Action Items**	John Bosley/Leonard Benson

Joint Use

1. Contract Number: 16-PR-DWT-13A – Urban Service Systems Corp, Solids Screening Facility Hauling
2. Contract Number: 16-PR-DWT-41A – Colonial Chemicals, Supply and Delivery of Methanol
3. Contract Number: 16-PR-DWT-41B – Mitsubishi International Corp, Supply and Delivery of Methanol
4. Contract Number: DCFA #495-WSA – Brown & Caldwell, Basic Ordering Agreement (BOA) – Infrastructure & Environmental Assessment
5. Contract Number: 140100 – Mabury Point Solar LLC, Solar Power Purchase Agreement

Non Joint Use

1. Contract Number: 16-PR-DMS-43 - Electric Motor & Contracting Co. (EMC), Repair and Rehabilitation of Various Process Assets
2. Contract Number: 170020 – Northeast Remsco, Lower Service 66' Steel Water Main

9:25 a.m.	**IV.**	**CIP Quarterly Update**	Paul Guttridge
9:40 a.m.	**V.**	**AWTP Status Updates**	Aklile Tesfaye

1. BPAWTP Performance

9:55 a.m.	**VI.**	**Executive Session***	
10:00 a.m.	**VII.**	**Adjournment**	James Patteson Chairperson

10:00 a.m. – 12:00 p.m. Site Visits at Blue Plains AWTP (Committee Members Only)

* 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. Manager, Program Services: Provide updates regarding change order rates and general contract management performance as part of the next CIP quarterly update. **[Included in the Quarterly CIP Report, currently on Agenda]**
2. The IMA Regional Committee (RC) brief the EQ & Ops Cmte on the work of the IMA RC **[Target: July 2018 EQ&Ops Cmte Mtg]**
3. Chief Engineer, DC Water: Provide a presentation on the prioritization criteria for selection of water mains to be replaced each year **[Target: September 2018 EQ&Ops Cmte Mtg]**
4. Assistant General Manager, Customer Care & Ops: Provide a briefing on the DDOT- DC Water Memorandum of Understanding (MOU) concerning roadway restoration requirements. **[Target: June 2018 EQ&Ops Cmte Mtg]**
5. Director, DETS: Provide additional detail regarding specific impacts to sewage pumping stations for both the 100-year and 500-year flood scenarios. **[Target: September 2018 EQ&Ops Cmte Mtg]**
6. Chief Engineer, DC Water: Schedule site visits with Committee members to Blue Plains Wastewater Treatment Plant **[On Current Agenda]**
7. Chief Engineer, DC Water: Schedule site visits with Committee members to Pumping Stations. **[Target: June 2018 EQ&Ops Cmte Mtg]**
8. Chief Engineer, DC Water: Conduct discussion on 'Preventative Maintenance' during the June EQ&Ops Committee meeting**. [Target: September 2018 EQ&Ops Cmte Mtg]**
9. Director, Clean Water & Technology: Reschedule presentation on Blue Plains Research & Development Overview and Update for EQ&Ops Committee meeting. **[Target: July 2018 EQ&Ops Cmte Mtg]**

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Blue Plains Solar Power Purchase Agreement
Contract #140100

District of Columbia Water And Sewer Authority

Environmental Quality & Operations Committee Meeting

May 17, 2018

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Agenda

- Project Background and Benefits
- Procurement Overview
- Project Schedule
- Ameresco's Proposal

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Project Background and Benefits

- Initial investigation at Camden County Municipal Utility Authority:
  - DC Water visited site in July 2012
- Solar feasibility study at Blue Plains:
  - 2014-2015
  - Report date: 01/2014
  - Evaluated roofs and basins
  - Technically and financially feasible
  - Concluded PPA preferred mechanism
- 2014-1015 procurement

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Project Background and Benefits

- Benefits
  - Reduction of operating costs without any capital outlay other than procurement/management costs
  - Reduction is for 20 years (+ optional 5-year renewal term).
  - Taking advantage of Federal Investment Tax Credit (FITC) and Solar Alternative Compliance Fee (SACF)
  - Risk mitigation of fluctuating power costs over 20 years
- 2015 procurement did not conclude with a successful PPA mainly due to high financial risks that the provider and DC Water could not mitigate

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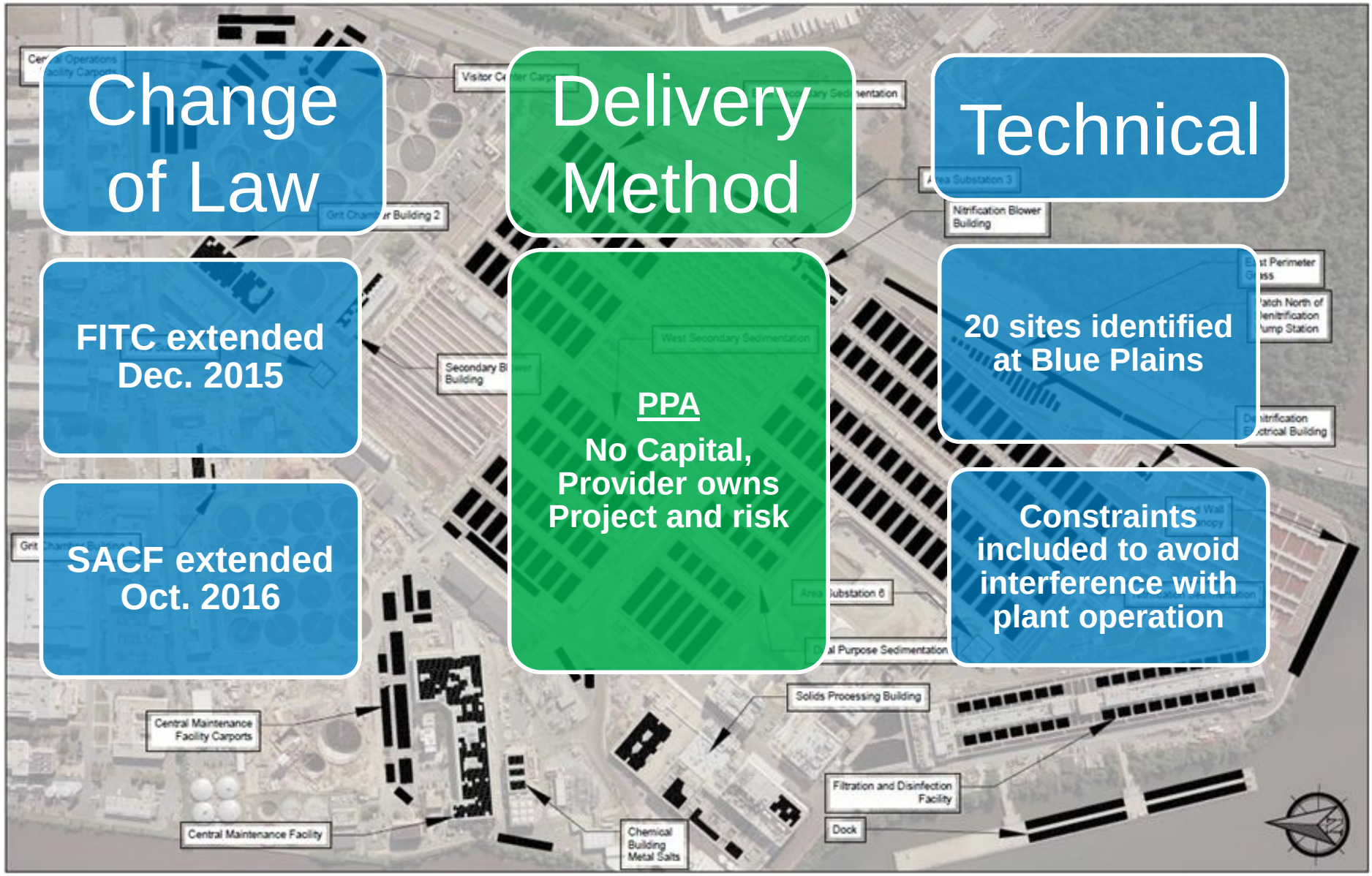
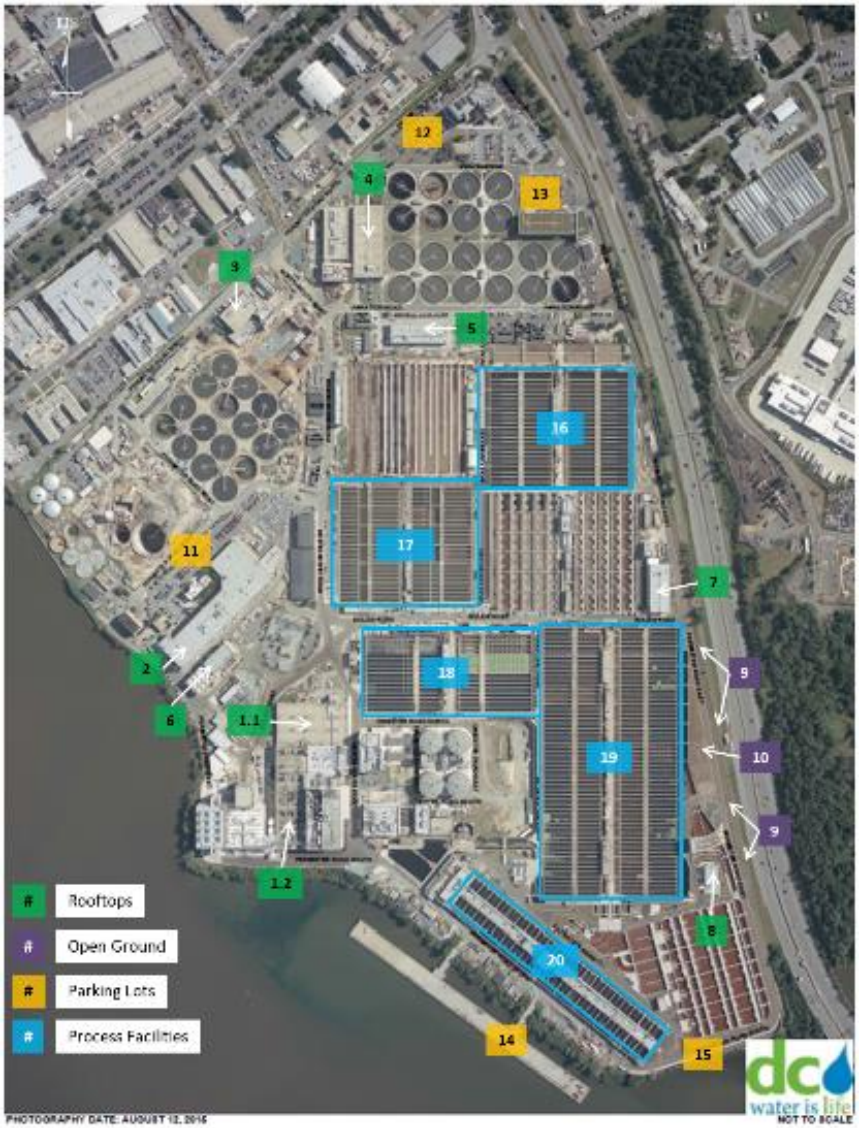
2017 Procurement Overview



Procurement Overview
The Process



Map of Available Areas

Goal
- **Generate savings in DC Water's operating budget**

Kickoff
- April 2017
- Technical, Financial, and Legal guidance supported new PPA procurement

RFQ
- June 2017
- 12 SOQs received in July
- Shortlisted 5 teams

RFI
- August 2017
- Issued 15 question RFI to gain industry perspective, understand risks of concern

RFP
- November 2017
- Requested 3 different pricing scenarios
- Separated Process basins for detailed design
- 2 Proposals received in February 2018

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Procurement Overview Highlights

Map of Process Facilities (except the FADF), removed from the first phase of the project

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Procurement Overview
Proposers

Process Facilities of Blue Plains determined unsuitable for the project

Ameresco
groSolar
Silicon Ranch
Sol Systems
Standard Solar

Ameresco
Silicon Ranch
Sol Systems
Standard Solar

Ameresco
Sol Systems
Standard Solar

Ameresco
Sol Systems

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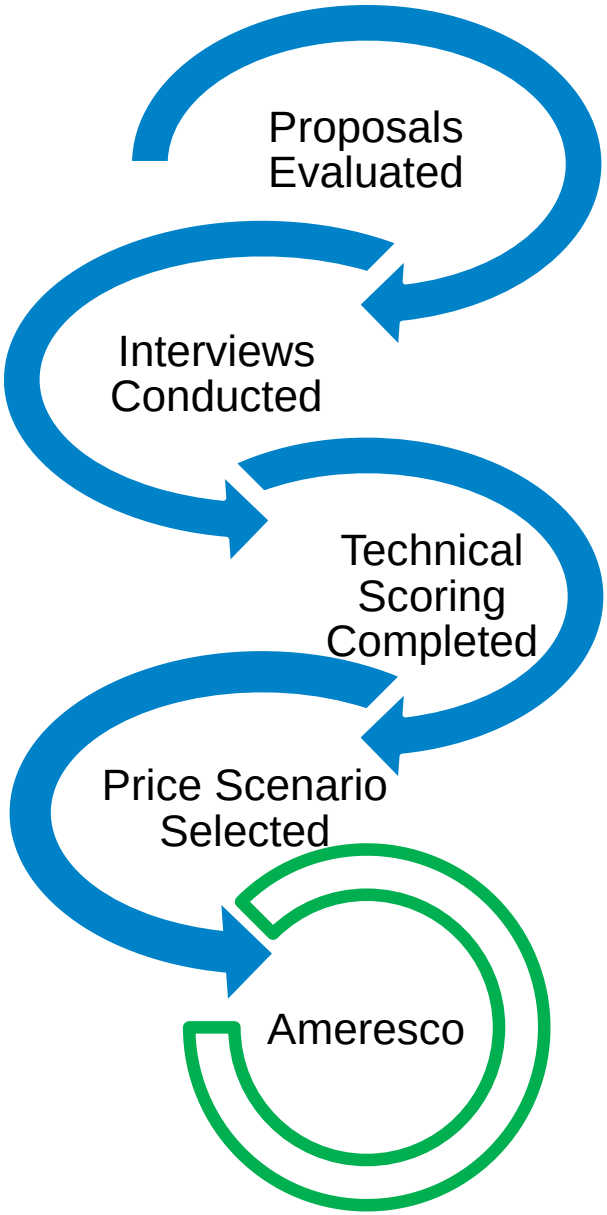
Procurement Overview Scoring



Technical Proposal (50%; out of 100 points)

- Project Description (20 pts)
- Management Approach (15 pts)
- Construction Approach (15 pts)
- Testing and Commissioning Approach (10 pts)
- Operations and Maintenance Approach (15 pts)
- Financial Approach (10 pts)
- Process Facilities Approach (15 pts)

Price Proposal (50%; out of 100 points)

- The Proposer with the best NPV would receive 100 points, the remaining Proposers would be scored proportionally based on their NPV
- Of the below price proposal scenarios, DC Water elects based on which has the best business case.

1) Provider retains all SRECs
2) Provider retains yrs. 1-5 SRECs, DC Water retains yrs. 6-20 SRECs
3) DC Water retains all SRECs

Rendering of solar array atop the Central Maintenance Facility roof

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Solar PPA Project, 2017-2018
Project Schedule

Procurement Activity	Actual / Planned Date
Solar PPA Project 2017 Kickoff Meeting	Friday, April 07, 2017
RFQ Posted	Sunday, June 25, 2017
Notification and RFI Issued to Shortlisted Proposers	Wednesday, August 16, 2017
RFP Issued to Shortlisted Proposers	Monday, November 06, 2017
Proposals Due Date	Wednesday, February 21, 2018
Environmental Quality and Sewerage Services (EQSS) Meeting	Thursday, May 17, 2018
Approval by DC Water Board of Directors	Thursday, June 7, 2018
Contract Execution and Notice to Proceed	Within 10 Business Days following Board Approval
Kick-off Meeting	Within 10 Business Days following Board Approval

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Ameresco's Proposal and Final PPA

Key	Location	Maximum DC Capacity (kW)	Year-1 Energy Estimate (kWh)
	Buildings	1,639	2,065,402
1.1	Solids Processing Building EL 37-00	220	474,009
1.2	Solids Processing Building EL 63-00	156	
2	Central Maintenance Facility	635	800,999
3	Grit Chamber Building 1	58	74,441
4	Grit Chamber Building 2	337	422,432
5	Chemical Building (Metal Salts)	52	65,515
6	Nitrification Blower Building	97	121,687
7	Denitrification Electrical Building	26	32,676
	Open Ground Areas	391	509,291
8	East Perimeter Grass	235	301,229
19	Patch North of Denitrification Pump	156	208,062
	Parking Lots	2,537	3,286,682
10	Central Maintenance Facility (CMF)	901	1,174,530
11	Central Operations Facility	590	755,445
12	Visitor Center Warehouse	178	231,773
13	Dock	570	730,701
14	Flood Wall	298	394,233
	Total PV System	4,567	5,861,375

Term Year	Guaranteed Energy Output (MWh/yr)	Baseline Comparison $/kWh	Provider's kWh Unit Rate $/kWh	Energy Cost Savings $/yr
1	5202	$ 0.0813	$ 0.0250	$ 292,889
2	5176	0.0829	0.0253	298,412
3	5150	0.0846	0.0255	304,376
4	5125	0.0863	0.0258	310,259
5	5099	0.0880	0.0260	316,062
6	5074	0.0898	0.0263	322,294
7	5048	0.0915	0.0265	327,938
8	5023	0.0934	0.0268	334,509
9	4998	0.0952	0.0271	340,493
10	4973	0.0971	0.0273	346,892
11	4948	0.0991	0.0276	353,701
12	4923	0.1011	0.0279	360,419
13	4899	0.1031	0.0282	367,048
14	4874	0.1052	0.0285	374,075
15	4850	0.1073	0.0287	381,009
16	4825	0.1094	0.0290	387,851
17	4801	0.1116	0.0293	395,081
18	4777	0.1138	0.0296	402,215
19	4753	0.1161	0.0299	409,729
20	4730	0.1184	0.0302	417,144

Commercial Operation: 26 Feb 2020 – 26 Feb 2040
20-year NPV: $3,897,568

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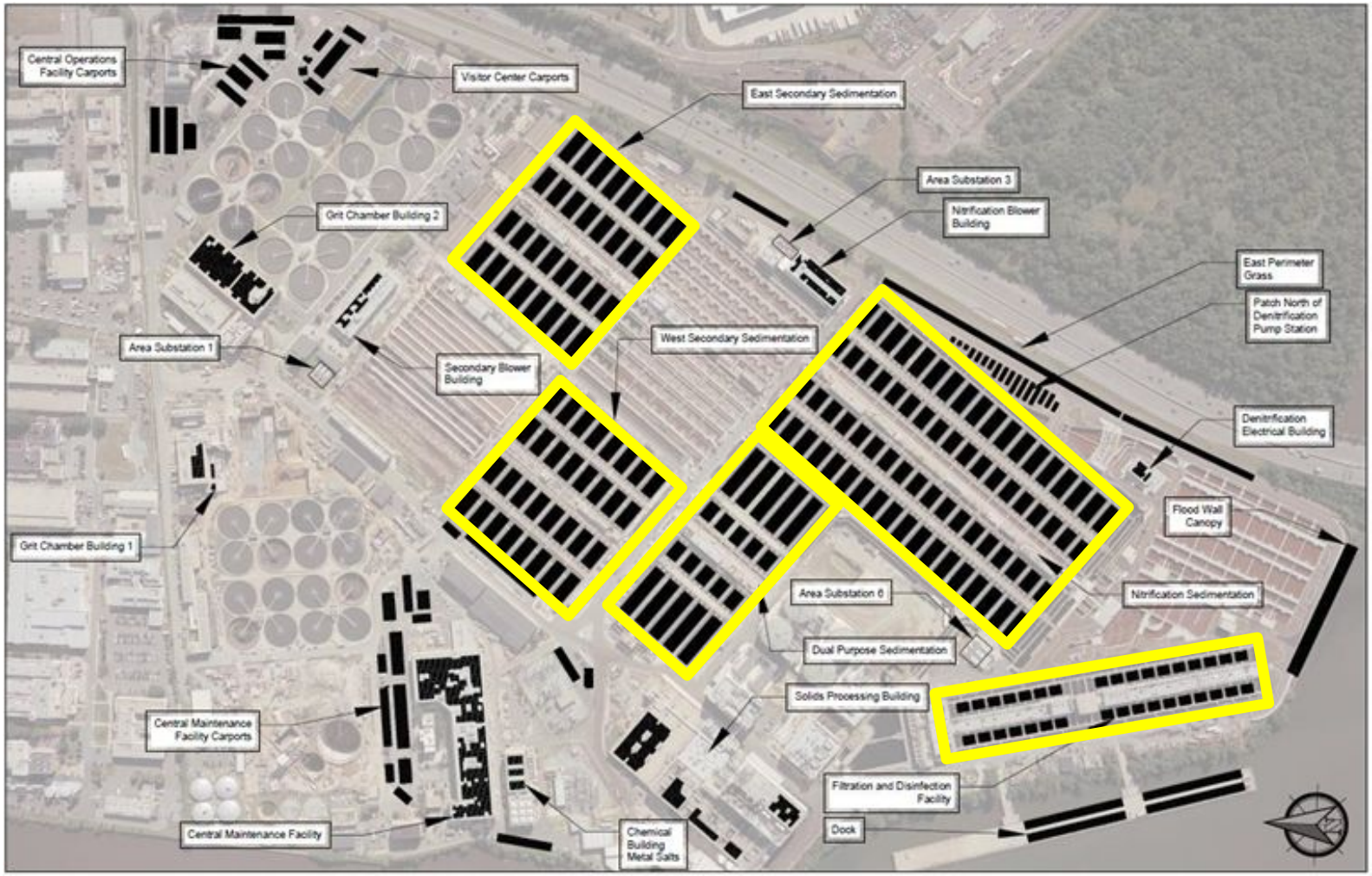
Ameresco's Proposal and Final PPA



Process Facilities, in yellow, are included for design only in this phase of the Project

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Ameresco's Proposal
Roof Replacement and Warranties

Roof replacement valued at $3.5-$4.5M and included in the PPA rate

Key	Building Name	Roof Plan
1.1	Solids Processing Building EL 37.00 - Dissolved Air Flotation (DAF) Area	Replace
1.2	Solids Processing Building EL 63.00 - Former N/S Vacuum Filter Area	Extend Warranty
2	Central Maintenance Facility (CMF)	Replace
3	Grit Chamber Building 1	New Warranty
4	Grit Chamber Building 2	New Warranty
5	Chemical Building (Metal Salts)	Replace
6	Nitrification Blower Building	Extend Warranty
7	Denitrification Electrical Building	Extend Warranty

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QUESTIONS

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT OPTION YEAR

Solids Screening Facility Hauling
(Joint Use)

Approval to exercise option year two (2) for the hauling of grit and scum from the solids screening facility in the amount of $1,018,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Urban Service Systems Corporation 212 Van Buren St., NW Washington, D.C. 20012 LBE	N/A	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
Option Year 1 Value:	$850,000.00
Option Year 1 Dates:	06-19-2017 – 06-18-2018
Prior Modification Value:	$235,352.06
Prior Modification Dates:	04-18-2017 – 06-18-2018
Option Year 2 Value:	$1,018,000.00
Option Year 2 Dates:	06/19/2018 – 06/18/2019

Purpose of the Contract:

This contract provides DC Water's Department of Wastewater Treatment (WWT) and Department of Distribution & Conveyance Systems (DDCS) with hauling/disposal services for grit/scum collected at the Solids Screening Facility. The Contractor manages the liquids that may collect in the trailers and oversees the proper disposal of these liquid. The Contractor also manages the weighing and hauling of the trailers to a permitted disposal site (sanitary landfill).

Contract Scope:

The Contractor shall provide all necessary labor, supervision, equipment, materials, tools, insurance and personnel for the hauling and roll-off trailers of grit, screenings and scum. The Contractor shall perform the services 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.

The requested funding will cover forecasted disposal services at all DC Water facilities, where necessary.

Spending Previous Year:

Cumulative Contract Value:	04-18-2016 to 06-18-2018: $1,985,352.00
Cumulative Contract Spending:	04-18-2016 to 04-04-2018: $1,573,625.90

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	41.90	$359,502.00
Washington Suburban Sanitary Commission	43.10	$369,798.00
Fairfax County	9.59	$82,282.20
Loudoun Water	4.64	$39,811.20
Other (PI)	0.77	$6,606.60
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00**	**$858,000.00**

BUDGET INFORMATION

Funding:	Operating	**Department:**	DDCS
Service Area:	District of Columbia	**Department Head:**	Charles Sweeney

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	$160,000.00
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%**	**$160,000.00**

5/6/18
Aklile Tesfaye Date
Assistant General Manager,
Blue Plains

5/9/18
Matthew T. Brown Date
Chief Financial Officer

5/8/18
Charles Kiely Date
Assistant General Manager,
Customer Care & Operations

Henderson J. Brown Date
Interim General Manager

5/8/18
Dan Bae Date
Director of Procurement

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 Methanol
(Joint Use)

This contract action is to add $1,315,000 in funds to the option year one (1), and execute option year two (2) in the amount of $5,940,000. For the combined total of $7,255,000.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Colonial Chemicals, Inc. 916 West Lathrop Avenue Savanah, GA 31415	N/A	N/A

DESCRIPTION AND PURPOSE

Base Period Contract Value:	$5,363,280.00
Base Contract Period:	08-07-2016 – 08-06-2017
No. of Option Years:	2
Prior Modification Value:	$490,000.00
Prior Modification Dates:	06-01-2017 – 06-30-2017
Option Year 1 Value:	$7,052,000.00
Option Year 1 Dates:	07-01-2017 – 08-06-2018
Option Year 1 Modification Value:	**$1,315,000.00**
Option Year 1 Modification Dates:	**06-01-2018 – 08-06-2018**
Option Year 2 Value:	**$5,940,000.00**
Option Year 2 Dates:	**08-07-2018 – 08-06-2019**

Purpose of the Contract:

To secure the consistent supply and delivery of methanol to the Blue Plains Advanced Wastewater Treatment Plant. DC Water dual-sources methanol to assure continuity of supply. Colonial Chemical was awarded 75% of our volume requirements, and Mitsubishi was awarded 25%.

Contract Scope:

DC Water consumes methanol continuously: it is the nutrient for bacteria in the Nitrification section of Blue Plains, where nitrogen is removed to comply with DC Water's environmental permits as required by the EPA.

This contract action is to add additional funding for option year 1 in the amount of $1,315,000, and exercising option year 2 in the amount of $5,940,000. Option year 1 funding will be depleted sooner than anticipated for our methanol consumption has been above projected plan, and because the methanol seasonal winter pricing was greater than expected. The industry forecasts that the supply of methanol will become stable, which is expected to stabilize pricing during option year 2. The option year 1 amount currently exceeds the budget available for this contract, and the anticipated cost reductions in other line items will be used, as needed.

Spending Previous Year:

Cumulative Contract Value:	08-07-2016 to 08-06-2018: $12,905,280.00
Cumulative Contract Spending:	08-07-2016 to 04-26-2018: $11,906,635.00

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 LBE/LSBE participation.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price Requirement Contract	**Award Based On:**	Lowest Cost Technically Acceptable Offeror
Commodity:	Goods and Services	**Contract Number:**	16-PR-DWT-41A
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

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

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.90%	$3,039,845.00
Washington Suburban Sanitary Commission	43.10%	$3,126,905.00
Fairfax County	9.59%	$695,754.50
Loudoun Water	4.64%	$336,632.00
Other (PI)	0.77%	$55,863.50
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00%**	**$7,255,000.00**

5/8/18
Aklile Tesfaye / Date
Assistant General Manager,
Blue Plains

5/8/18
Dan Bae / Date
Director of Procurement

5/10/18
Matthew T. Brown / Date
Chief Financial Officer

Henderson J. Brown IV / Date
Interim General Manager

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 Methanol
(Joint Use)

This contract action is to add $681,000 in funds to the option year one (1), and execute option year two (2) in the amount of $1,978,000. For the combined total of $2,659,000.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Mitsubishi International Corp. 655 Third Avenue New York, NY 10017	N/A	N/A

DESCRIPTION AND PURPOSE

Base Period Contract Value:	$1,925,000.00
Base Contract Period:	08-07-2016 – 08-06-2017
No. of Option Years:	2
Prior Modification Value:	$74,000.00
Prior Modification Dates:	06-01-2017 – 06-30-2017
Option Year 1 Value:	$2,373,000.00
Option Year 1 Dates:	07-01-2017 – 08-06-2018
Option Year 1 Modification Value:	**$681,000.00**
Option Year 1 Modification Dates:	**06-01-2018 – 08-06-2018**
Option Year 2 Value:	**$1,978,000.00**
Option Year 2 Dates:	**08-07-2018 – 08-06-2019**

Purpose of the Contract:

To secure the consistent supply and delivery of methanol to the Blue Plains Advanced Wastewater Treatment Plant. DC Water dual-sources methanol to assure continuity of supply. Colonial Chemical was awarded 75% of our volume requirements, and Mitsubishi was awarded 25%

Contract Scope:

DC Water consumes methanol continuously: it is the nutrient for bacteria in the Nitrification section of Blue Plains, where nitrogen is removed to comply with DC Water's environmental permits as required by the EPA.

This contract action is to add additional funding for option year 1 in the amount of $681,000, and exercising option year 2 in the amount of $1,978,000. Option year 1 funding will be depleted sooner than anticipated for our methanol consumption has been above projected plan, and because the methanol seasonal winter pricing was greater than expected. The industry forecasts that the supply of methanol will become stable, which is expected to stabilize pricing during option year 2. The option year 1 amount currently exceeds the budget available for this contract, and the anticipated cost reductions in other line items will be used, as needed.

Spending Previous Year:

Cumulative Contract Value:	08-07-2016 to 08-06-2018: $4,372,040.00
Cumulative Contract Spending:	08-07-2016 to 04-26-2018: $4,106,449.00

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 LBE/LSBE participation.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price Requirement Contract	**Award Based On:**	Lowest Cost Technically Acceptable Offeror
Commodity:	Goods and Services	**Contract Number:**	16-PR-DWT-41B
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

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

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.90%	$1,114,121.00
Washington Suburban Sanitary Commission	43.10%	$1,146,029.00
Fairfax County	9.59%	$254,998.10
Loudoun Water	4.64%	$123,377.60
Other (PI)	0.77%	$20,474.30
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00%**	**$2,659,000.00**

Aklile Tesfaye / 5/8/18
Assistant General Manager, Blue Plains — Date

Dan Bae / 5/8/18
Director of Procurement — Date

Matthew T. Brown / 5/10/18
Chief Financial Officer — Date

Henderson J. Brown IV / _____
Interim General Manager — Date

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

ACTION REQUESTED

ENGINEERING SERVICES:

Basic Ordering Agreement - Infrastructure and Environmental Assessment (Joint Use)

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

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
Brown and Caldwell 1600 Duke Street Suite 310 Alexandria, VA 22314 Headquarters Walnut Creek, CA 94596	C.C. Johnson & Malhotra, PC Washington, DC	MBE	10.0%
	Savin Engineers, P.C. Landover, MD	MBE	8.0%
	Chesapeake Environmental Management, Inc. Bel Air, MD	MBE	6.0%
	Somat Engineering, Inc. Washington, DC	MBE	4.0%
	SZ PM Consultants, Inc. Washington, DC	WBE	4.0%
	Johnson, Mirmiran & Thompson, Inc. Washington, DC		14.0%
	Simpson Gumpertz & Heger Washington, DC		2.0%
	Frèchette Engineering, LLC LaPlata, MD		1.0%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	$6,000,000	
Contract Time:	2,555 Days	(7 Years, 0 Months)
Anticipated Contract Start Date:	07-02-2018	
Anticipated Contract Completion Date:	06-30-2025	

Other firms submitting proposals/qualification statements:

Carollo*
Delon Hampton & Associates (WRA
Dewberry
Hazen and Sawyer
Rummel, Klepper & Kahl, LLP
Stantec
Whitman, Requardt & Associates, LLP (WRA)*

* Asterisk indicates short listed firms.

Purpose of the Contract:

The consultant will provide conceptual design, final design, services during bidding, and services during construction, NEPA Compliance, and other permitting needs. Projects will be located in the water distribution and sewer collection systems throughout the District of Columbia as well as Montgomery, Fairfax, and Loudoun Counties. Projects are likely to include rehabilitation and replacement of water and sewer pipelines.

Contract Scope:

- Design for the rehabilitation and/or relocation of sewer and water pipeline infrastructure that could require bypass pumping up to 130 million gallons per day.

- Services anticipated include civil engineering; structural engineering; bidding services; topographical survey; subsurface utility engineering, research of easement, and other access rights; geotechnical and/or geophysical investigation; NEPA compliance; wetlands and other environmental permitting and design.

PROCUREMENT INFORMATION

Contract Type:	Lump Sum /Cost Plus Fixed Fee	**Award Based On:**	Highest Ranking Score
Commodity:	Engineering Design Services	**Contract Number:**	DCFA-495-WSA
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	**Department:**	Engineering and Technical Services
Service Area:	Sewer and Water	**Department Head:**	Craig Fricke
Project:	LZ, IK, IE		

***ESTIMATED USER SHARE INFORMATION**

User	Share %	Dollar Amount
District of Columbia	100.00%	$ 6,000,000.00
Federal Funds	0.00%	$
Washington Suburban Sanitary Commission	0.00%	$
Fairfax County	0.00%	$
Loudoun County & Potomac Interceptor	0.00%	$
Total Estimated Dollar Amount	**100.00%**	**$** 6,000,000.00

* Work under this contract will be assigned as needed under specific task orders. It is anticipated that Joint Use work may be assigned during the contract period. As tasks are developed for work associated with specific facilities and costs are developed, the individual users will be notified and billed according to agreed cost sharing.

Leonard R. Benson / 5-9-18 / Date
Chief Engineer

Dan Bae / 5/14/18 / Date
Director of Procurement

Matthew T. Brown / 5/14/18 / Date
Chief Financial Officer

Henderson J. Brown, IV / Date
Interim CEO and General Manager

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT:

Solar Power Purchase Agreement
(Joint Use)

Approval to execute a 20-year contract for solar power purchase at Blue Plains with a 20-year amount of $2,727,169 which comprises design, installation, commissioning, operation and maintenance of a 4.5 MW solar project.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
Marbury Point Solar LLC 101 Constitution Ave. NW Suite 525 East Washington, DC 20001 Headquarters Framingham, MA 01701	*MBE/WBE Planned Goals:		
	**Design	$ 1,055,900.00	
	MBE	$ 295,652.00	28.0%
	WBE	$ 42,236.00	4.0%
	**Construction	$15,258,012.00	
	MBE	$ 4,882,564.00	32.0%
	WBE	$ 915,481.00	6.0%
	Total Eligible	$16,313,912.00	
	MBE/WBE Total	$ 6,135,933.00	

* Final sub-contracts for work to be undertaken are still being negotiated by Contractor. However, they have identified categories where MBE and WBE firms will be selected to perform the work. As contractor is still in final negotiations with sub-contractors, the specific names of firms selected have not been finalized. Marbury has committed to meet or exceed the above stated goals for MBE and WBE.

** MBE and WBE goals are based on the design and construction costs which are the sole responsibility of the contractor. This fact sheet, is only for the Power Purchase Agreement operational costs.

DESCRIPTION AND PURPOSE

Contract Value, 20-year amount:	$2,727,169	
Contract Time:	7300 Days	(20 Years, 0 Months)
Anticipated Contract Start Date:	07-18-2018	(Design-Build Start)
	02-26-2020	(Commercial Operation Date)
Anticipated Contract Completion Date:	02-26-2040	
Proposal Opening Date:	03-23-2018	
Proposal Received:	2	

Other firms submitting qualification statements:

ConEdison	*** Standard Solar
ForeFront Power	Sun Power
*** groSolar	Tesla Energy
Johnson Controls	True Green Capital
*** Silicon Ranch – Hexagon	Vitrol URH
*** Sol Systems	

*** Asterisks indicate short-listed firms.

Purpose of the Contract

Provide a 20-year contract with an option to renew for 5 years for the purchase of solar power generated at Blue Plains Advanced Waste Water Treatment Plant through the installation of solar panels at a rate less than the Utility rate.

Contract Scope:

- Provide new roofs on the following buildings:
  - Solids Processing Building – Dissolved Air Flotation Thickeners (DAFT) Area
  - Central Maintenance Facility
  - Metal Salts Building

- Provide solar panels over the following buildings:
  - Solids Processing Building – DAFT and old Vacuum Filter Areas
  - Central Maintenance Facility
  - Grit Chamber Buildings 1 and 2
  - Chemical Building (Metal Salts) Building
  - Nitrification Blower Building and the Denitrification Electrical Building
- Provide solar panels over the following open areas:
  - East Perimeter Grass
  - Patch North of the Denitrification Pump Station
- Provide solar panels over the following parking lots:
  - Central Maintenance and Central Operation Facilities
  - Visitor Center Warehouse
  - Dock and Flood Wall
- Provide Intermediate Design for solar panels over the following Process Facilities:
  - West and East Secondary Sedimentation Basins
  - Dual Purpose and Nitrification Sedimentation Basins
  - Filtration and Disinfection Facility
- Provide guaranteed energy to DC Water for every year of the contract term. The first year Annual Guaranteed Energy Output is 5,202 MWh at $0.025 / kWh.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	**Award Based On:**	Best Value, responsible bidder
Commodity:	Goods	**Contract Number:**	140100
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Operations	**Department:**	Wastewater Treatment
Service Area:	Wastewater	**Department Head:**	Aklile Tesfaye

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.90%	$ 1,142,683.81
Washington Suburban Sanitary Commission	43.10%	$ 1,175,409.84
Fairfax County	9.59%	$ 261,535.51
Loudoun County	4.64%	$ 126,540.64
Potomac Interceptor	0.77%	$ 20,999.20
Total Estimated Dollar Amount	**100.00%**	**$ 2,727,169.00**

Leonard R. Benson / 5-10-18 / Date
Chief Engineer

Dan Bae / 5/10/18 / Date
Director of Procurement

Aklile Tesfaye / 5-10-18 / Date
Assistant General Manager

Henderson J. Brown, IV / Date
Interim CEO and General Manager

Matthew T. Brown / 5/10/18 / Date
Chief Financial Officer

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 (Non-Joint Use)

Approval to add funding in the amount of $886,000.00 for option year one (1) to the Repair and Rehabilitation of Various Process Assets contract.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Electric Motor & Contracting Co., Inc.(EMC) 3728 Profit Way Chesapeake, VA 23323	M&M Electric Motor Repair, Inc. LSBE	29%

DESCRIPTION AND PURPOSE

Original Contract Value:	$2,850,000.00
Base Year Dates:	01-01-2017 – 12-31-2017
No. of Option Years in Contract:	2
Option Year 1 Value:	$2,076,186.00
Option Year 1 Dates:	01-01-2018 – 12-31-2018
Prior Modification Value:	$65,000.00
Prior Modification Dates:	02-26-2018 – 12-31-2018
This Modification Value:	**$886,000.00**
This Modification Dates:	**06-08-2018 – 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, rehab, 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 will be utilized by DDCS alone. DMS has enough funds under this contract for the remainder of the option year. The requested funding will cover emergency rehabilitation of mechanical and electrical equipment at DC Water facilities.

This request for $886,000.00 is for DDCS only, and comprises $386,000 from FY18 funds and $500,000 from the FY19 budget. DMS has sufficient approved funding for the remainder of the contract year. Projects requiring these funds include 26th and K St. Storm Water station rehabilitation, Various Valve rehabilitation, Main Pumping Station Backflow rehabilitation totaling $570,000, and several smaller projects. This request brings the option year 1 total to about $3,027,000 – similar to the base year funding.

Spending Previous Year:

Cumulative Contract Value:	01-01-2017 to 04-02-2018: $4,991,186.00
Cumulative Contract Spending:	01-01-2017 to 04-02-2018: $3,276,704.00

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:**	DDCS
Service Area:	EQP 4210	**Department Head:**	Charles Sweeney

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	$886,000.00
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%**	**$886,000.00**

Charles Kiely, 5/8/18
Assistant General Manager,
Customer Care & Operations — Date

Dan Bae, 5/8/18
Director of Procurement — Date

Matthew T. Brown, 5/10/18
Chief Financial Officer — Date

Henderson J. Brown, _____
Interim General Manager — Date

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

ACTION REQUESTED

CONSTRUCTION CONTRACT:

Low Service 66-Inch Steel Water Main (Non-Joint Use)

Approval to execute a construction contract for $5,117,900.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
Northeast Remsco Construction, Inc. 12815 Old Fort Road Suite 105 Fort Washington, MD 20744 Headquarters Farmingdate, NJ 07727	M. Barbosa Construction Rockville, Maryland	MBE	4.6%
	Atlas Foundations Temple Hills, Maryland	MBE	3.1%
	Pronto Paving Hyattsville, Maryland	MBE	2.1%
	East Star Transportation, LLC Upper Marlboro, Maryland	MBE	0.6%
	Williams Solutions Hagerstown, Maryland	MBE	0.4%
	Strum Contracting Company, Inc Baltimore, Maryland	MBE	0.4%
	Apex Petroleum, Corporation Largo, Maryland	MBE	0.3%
	Capitol Development Design, Inc Beltsville, Maryland	MBE	0.2%
	Atlantic Traffic Safety Ocean City, Maryland	WBE	6.8%
	R&R Contract Utilities, Inc Olney, Maryland	WBE	4.1%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	$5,117,900.00
Contract Time:	365 Days (1 Year)
Anticipated Contract Start Date (NTP):	07-05-2018
Anticipated Contract Completion Date:	07-05-2019
Bid Opening Date:	April 4, 2018
Bids Received:	6
Other Bids Received	
Garney Companies, Inc	$ 5,271,000.00
Spiniello Companies	$ 6,133,000.00
Anchor Construction	$ 7,165,875.00
J. Fletcher Creamer & Sons	$ 7,667,500.00
Corna Kokosing	$ 7,724,450.00

Purpose of the Contract:

The installation of inspection ports and cathodic protection for a 66-inch steel water main. While the work is underway an opportunistic inspection and any required repairs of the 8,000 linear feet of the drained portion of the 3 mile waterline will take place.

Contract Scope:

- Construct 9 access/entry port and installation of a new 66-inch butterfly valve.
- Installation of cathodic protection system.
- Coordination with a third party inspection firm.
- Completion of minor repairs identified from the inspection.
- Maintenance of traffic and pavement restoration.

Federal Grant Status:

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

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	**Award Based On:**	Lowest responsive, responsible bidder
Commodity:	Construction	**Contract Number:**	170020
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	**Department:**	Engineering and Technical Services
Service Area:	Water	**Department Head:**	Craig Fricke
Project:	C9		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	$ 5,117,900.00
Federal Funds	0.00%	$
Washington Suburban Sanitary Commission	0.00%	$
Fairfax County	0.00%	$
Loudoun County & Potomac Interceptor	0.00%	$
Total Estimated Dollar Amount	**100.00%**	**$ 5,117,900.00**

Leonard R. Benson, Chief Engineer — Date: 5-9-18

Dan Bae, Director of Procurement — Date: 5/14/18

Matthew T. Brown, Chief Financial Officer — Date: 5/14/18

Henderson J. Brown, IV, Interim CEO and General Manager — Date:

District of Columbia Water and Sewer Authority

Capital Improvement Program Report

FY-2018 2nd Quarter
January 1st through March 31st, 2018

Board of Directors
Environmental Quality and Operations Committee

Henderson J. Brown IV, Interim CEO & General Manager
Leonard R. Benson, Chief Engineer

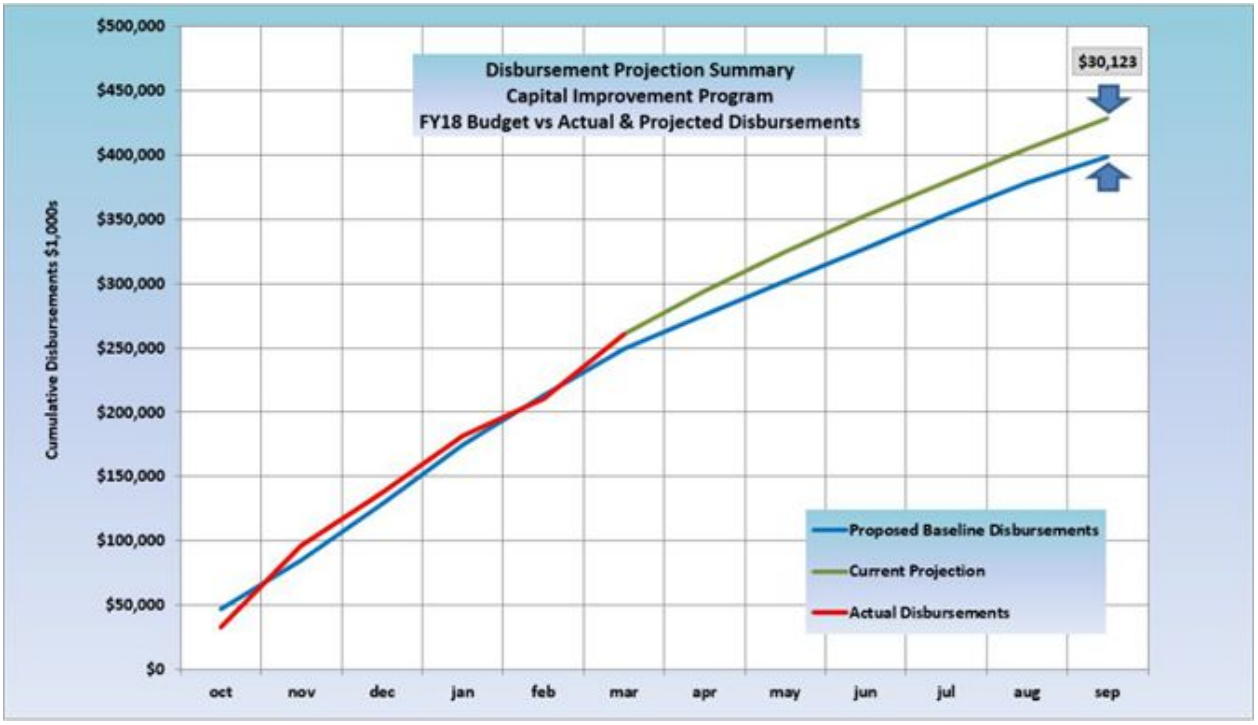
May 2018

Capital Improvement Program Report
2nd Quarter FY2018

CIP Disbursement Performance

Current projected program disbursements through the end of the fiscal year compared with the FY18 baseline are shown in the chart below:

Disbursement Summary



The approved capital disbursement plan as agreed by the DC Water Board of Directors on March 1 2018, included an FY18 disbursements projection of $398,285,000.

The current projected fiscal year 2018 CIP disbursements are $428,408,000 through the end of September 2018, which is 7.6% above the baseline disbursement projection of $398,285,000.

Current disbursement projections within the service areas are as follows:

Non Process Facilities
Baseline Disbursements $31,678,000
Projected Disbursements $32,276,000 ($598k above baseline projection)
There are no significant project variances for this service area.

Wastewater Treatment Service Area
Baseline Disbursements $95,520,000
Projected Disbursements $109,872,000 ($14.4M above baseline projection)
Significant project variances are listed below:

- *Plantwide Projects Program Area – ($3.7M above baseline)*
  - The disbursements for various projects were higher than the baseline due to expedited equipment purchases and faster than expected execution.
- *ENR Facilities Program Area – ($8.9M above baseline)*
  - The disbursements for project E8 - Enhanced Clarification Facilities are projected to be above the baseline due to an early retention release and a payment accounted for in FY17 that were disbursed in FY18.
  - The disbursements for project EE – Filtrate Treatment Facilities are projected to be above the baseline due to underestimation in the retainage release projection for FY18.

CSO Service Area
Baseline Disbursements $181,897,000
Projected Disbursements $180,816,000 ($1.1M below baseline projection)
There are no significant project variances for this service area.

Stormwater Service Area
Baseline Disbursements $944,000
Projected Disbursements $1,574,000 ($630k above baseline projection)
There are no significant project variances for this service area.

Sanitary Sewer Service Area
Baseline Disbursements $30,191,000
Projected Disbursements $40,592,000 ($10.4M above baseline projection)
Significant project variances are listed below:

- *Sanitary Collection Sewers Program Area – ($6.5M above baseline)*
  - The disbursements for project J3 – Sewer Upgrade City Wide are projected to be greater than anticipated in the baseline. This is mainly due to the work progressing at a faster pace than anticipated.
  - The disbursements for project G1 – Small Local Sewer Rehab are projected to be greater than anticipated in the baseline due to the work progressing faster than anticipated.

Water Service Area
Baseline Disbursements $58,054,000
Projected Disbursements $63,278 ($5.2M above baseline projection)
Significant project variances are listed below:

- *Water Storage Facilities Program Area – ($4.2M above baseline)*
  - The projected disbursements for project MA - St. Elizabeth Water Tank are greater than anticipated in the baseline. This is mainly due to an incorrect entry into the database, we have since improved the process and procedure.

Capital Improvement Program Report
2nd Quarter FY2018

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 Water Main 13A	Construction	No	$5M - $10M	EQ & Ops Jun	Jul
C9	66" Steel Main at 8th St., NE	Construction	No	$5M - $10M	EQ & Ops May	Jun
UC	Upgrades to FIPS 1-10	Construction	Yes	$15M - $20M	EQ & Ops Sep	Oct
OE	Plant-wide Stormwater Drainage Improvements	Construction	Yes	$3M - $5M	EQ & Ops Sep	Oct
BX	Gravity Thickener Upgrades Phase II	Construction	Yes	$35M - $45M	EQ & Ops Oct	Nov

Capital Improvement Program Report
2nd Quarter FY2018

Schedule - Key Performance Indicators
Capital Improvement Program

Summary:
For the 2nd Quarter, all of the Key Performance Indicators (KPIs) completed this period were achieved within 90 days of their target date.

#	Performance
17	KPIs completed within threshold
0	KPIs completed outside threshold
17	Total KPIs completed to date
27*	Total KPIs due this year

Reasons for any KPIs not meeting the 90-day threshold this period:
N/A.
NOTE: *KPI for job GA01 has been removed as scope reduced and Substantial Completion effectively determined as met in 2017.

The table below provides a detailed breakdown of each KPI due date grouped by Quarter as of March 31st 2018:

Quarter	Job Code	Job Name	Activity Name	Due Date (Baseline)	Estimated Complete Date	Actual Complete Date	Variance (positive is early)	Met within 90 days
Q1	F203	Small Diameter Water Main Repl 14C C&L	Design Start	30-Oct-17		20-Oct-17	10	✓
Q1	DE02	Small Diameter Water Main Repl 12B	Construction Start	5-Nov-17		03-Nov-17	2	✓
Q2	EE01	Biosolids Filtrate Treatment Facilities	Construction Substantial Completion	4-Jan-18		19-Dec-17	16	✓
Q2	IY03	High & Low PSW Pumps Evaluation and Replacement	Design Start	15-Jan-18		09-Jan-18	6	✓
Q2	GR01	Small Diameter Water Main Rehab. 15A	Design Start	1-Feb-18		07-Feb-18	-6	✓
Q2	LZ03	PI Phase 1 Pipe Rehab at Clara Barton Pkwy	Design Start	2-Feb-18		06-Feb-18	-4	✓
Q2	BI01	Enhanced Nitrogen Removal (ENR) North	Construction Substantial Completion	8-Mar-18		09-Feb-18	27	✓
Q2	CY04	Div E - CSO 015-017 Structures/Diversions	Project Consent Decree Place In Operation (PIO)	23-Mar-18		20-Mar-18	3	✓

Capital Improvement Program Report
2nd Quarter FY2018

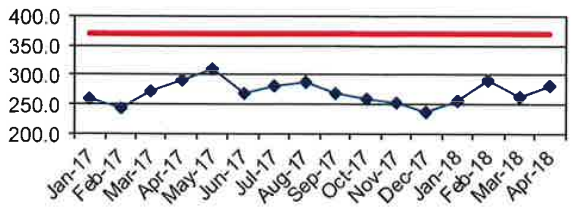
Quarter	Job Code	Job Name	Activity Name	Due Date (Baseline)	Estimated Complete Date	Actual Complete Date	Variance (positive is early)	Met within 90 days
Q2	**CY06**	**Div G - CSO 005/007 Structures and Diversions**	**Project Consent Decree PIO**	**23-Mar-18**		**20-Mar-18**	**3**	✓
Q2	**CY12**	**Div H - Anacostia River Tunnel**	**Project Consent Decree PIO**	**23-Mar-18**		**20-Mar-18**	**3**	✓
Q2	**CY12**	**Div H - Anacostia River Tunnel**	**Construction Substantial Completion**	**23-Mar-18**		**08-Mar-18**	**15**	✓
Q2	**CY13**	**Div I - Main Pumping Sta. Diversions and Outfall Sewer Diversion**	**Project Consent Decree PIO**	**23-Mar-18**		**15-Feb-18**	**36**	✓
Q2	**CY18**	**Div Y - BP Tunnel Dewatering Pump Station**	**Project Consent Decree PIO**	**23-Mar-18**		**20-Mar-18**	**3**	✓
Q2	**CY21**	**Div Z - Poplar Point Pumping Sta. Replacement**	**Project Consent Decree PIO**	**23-Mar-18**		**20-Mar-18**	**3**	✓
Q2	**CY31**	**Div U - Advance Utility Relocations for NEBT**	**Design Build Substantial Completion**	**23-Mar-18**		**27-Nov-17**	**116**	✓
Q2	**E801**	**Enhanced Clarification Facilities**	**Project Consent Decree PIO**	**23-Mar-18**		**20-Mar-18**	**3**	✓
Q2	**FS01**	**Div D - JBAB Overflow and Diversion Structures**	**Project Consent Decree PIO**	**23-Mar-18**		**15-Feb-18**	**36**	✓
Q3	J001	B Street/New Jersey Ave. Trunk Sewer Rehab and Cleaning Phase 1	Construction Start	4-Apr-18	04-Apr-18		0	
Q3	MA01	St. Elizabeth Water Tank	Construction Substantial Completion	10-Apr-18	10-Apr-18		0	
Q3	G100	Lining & Repair of Local Sewers	Construction Substantial Completion	31-May-18	31-May-18		0	
Q3	GR02	Small Diameter Water Main Rehab 15B	Design Start	1-Jun-18	01-Jun-18		0	
Q3	I801	Large Valve Replacements 11R	Construction Substantial Completion	30-Jun-18	30-Jun-18		0	
Q4	C904	66" Low Service Steel Main at 8th Street NE & SE	Construction Start	3-Jul-18	03-Jul-18		0	
Q4	LZ04	PI Phase 2 Pipe Rehab at Potomac Crossing	Design Start	5-Jul-18	05-Jul-18		0	
Q4	DR02	Low Area Trunk Sewer - Rehabilitation	Construction Start	12-Jul-18	09-May-18		64	
Q4	O302	Small Diameter Watermain Repl 11b	Construction Substantial Completion	27-Jul-18	27-Jul-18		0	
Q4	UC06	Upgrades to FIPS 1-10	Construction Start	29-Sep-18	29-Sep-18		0	

Table Key: Positive variance = Finishing earlier than baseline plan Bold = Actual Date achieved

BLUE PLAINS ADVANCED WASTEWATER TREATMENT PLANT
PERFORMANCE REPORT – APRIL 2018

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 282 MGD. There was 54 million gallons of treated captured combined flows directed to Outfall 001 during this period. The following figures compare the plant performance with the corresponding NPDES permit limits.

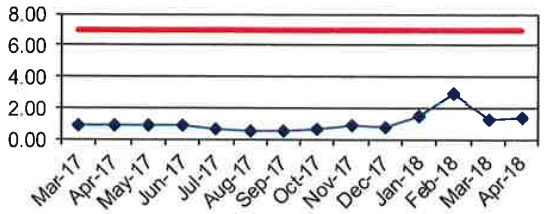
Plant Influent Flow (mgd)



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.

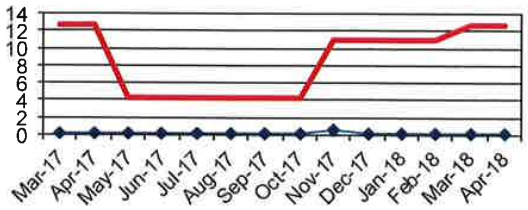
TSS (mg/l)



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 1.43 mg/L, which is below the 7.0 mg/L permit limit.

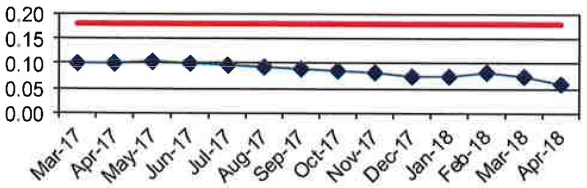
Ammonia (mg/l)



Effluent NH3 — **Permit Limit**

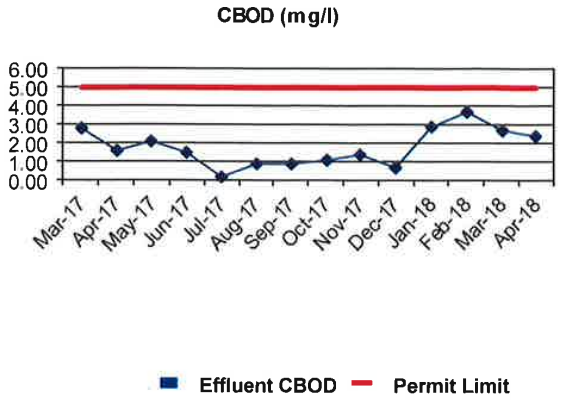
The Ammonia Nitrogen (NH3-N) is a measure of the nitrogen found in ammonia. For the month, effluent NH3-N concentration averaged 0.26 mg/L and is below the average 12.8 mg/L limit.

Total Phosphorus Annual Average (mg/l)

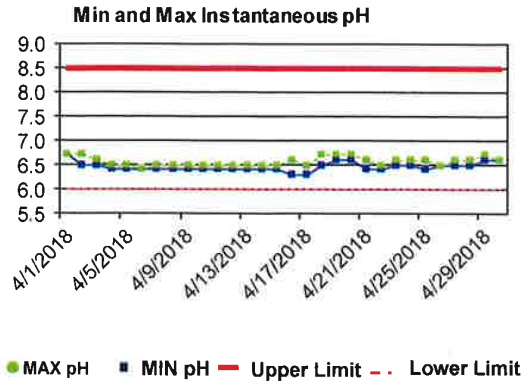


Effluent TP — **Permit Limit**

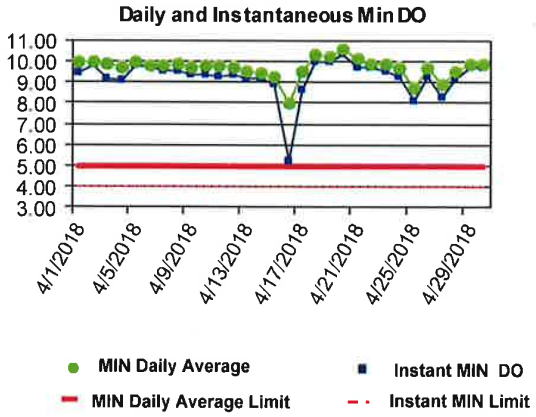
The Total Phosphorus (TP) is a measure of the particulate and dissolved phosphorus in the effluent. The annual average effluent TP concentration is 0.06 mg/L, which is below the 0.18 mg/L annual average limit.



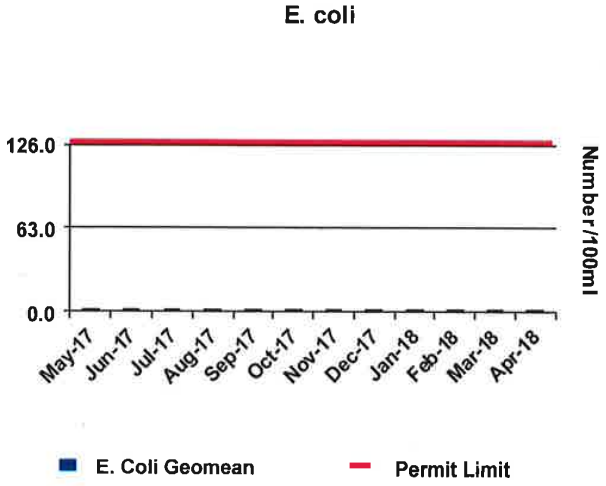
Carbonaceous Biochemical Oxygen Demand (CBOD) is a measure of the amount of dissolved oxygen required for the decomposition of organic materials. The effluent CBOD concentration averaged 2.41 mg/L (partial month), which is below the 5.0 mg/L limit.



pH is a measure of the intensity of the alkalinity or acidity of the effluent. The minimum and maximum pH observed were 6.3 and 6.7 standard units, respectively. The pH was within the permit limits of 6.0 and 8.5 for minimum and maximum respectively.



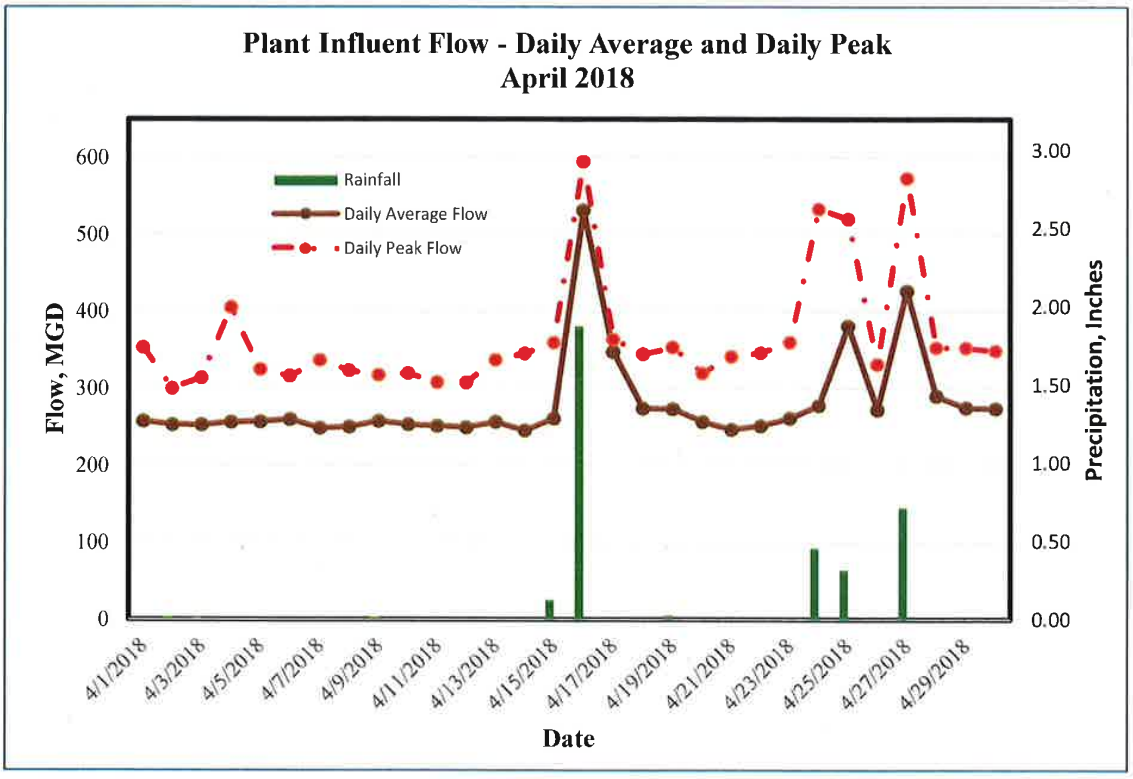
Dissolved Oxygen (DO) is a measure of the atmospheric oxygen dissolved in wastewater. The DO readings for the month are within the permit limits. The minimum daily average is 8.0 mg/L. The minimum instantaneous DO reading is 5.3 mg/L. The minimum permit limits are 5.0 mg/L and 4.0 mg/L respectively.



E.coli is an indicator of disease causing organisms (pathogens). The E.coli permit limit is 126/100mL. The E coli geometric mean is 1.1 /100mL, and well below the permit limit.

Wet Weather Impact on Plant Performance

During the month of April 2018, the Washington Metropolitan Region received above normal total rainfall (3.59 inches vs normal of 3.06 inches) as measured at the National Airport. The wet weather event that occurred on April 15 - 16, 2018, resulted in peak plant influent flows exceeding 590 MGD. The plant's performance was excellent and the event had minimal impact on the quality of the effluent discharge through the complete treatment outfall. All effluent quality parameters were below the weekly and monthly average NPDES permit limits.

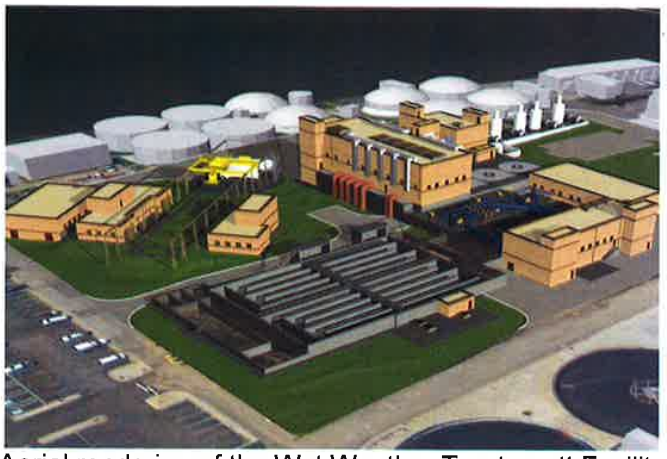


Wet Weather Treatment Facility (WWTF) at Blue Plains

Brief Description

The Wet Weather Treatment Facility at Blue Plains provides treatment for Combined Sewer Overflows (CSO) conveyed through the Long Term Control Plan (LTCP) tunnel systems to Blue Plains. With a design capacity of 250 MGD, the facility consists of sub systems to provide a flow surcharge wet well and coarse screens upstream of five 3,000 Horse Power (HP) Tunnel Dewatering Pumps (TDPs). The TDPs lift the flow 156 ft (static head) to the above ground Enhanced Clarification Facility (ECF), which comprises of fine screening, grit removal, and high rate clarification (HRC). The effluent from HRC

is disinfected and dechlorinated before it's discharged through Outfall 001. When flow rates to the main plant are below the permitted peak flow rates of 555 OR 511 MGD, the effluent from the HRC (or a portion of it) is directed to the main plant for complete treatment. On an average year, the facility is designed to receive approximately 2.5 billion gallons of CSOs and provide treatment with effluent total suspended solids quality comparable to that of Secondary Treatment effluent. The WWTF, along with the first section of the Anacostia Tunnel System were placed in operation, three days in advance of the March 23rd Consent Decree date.



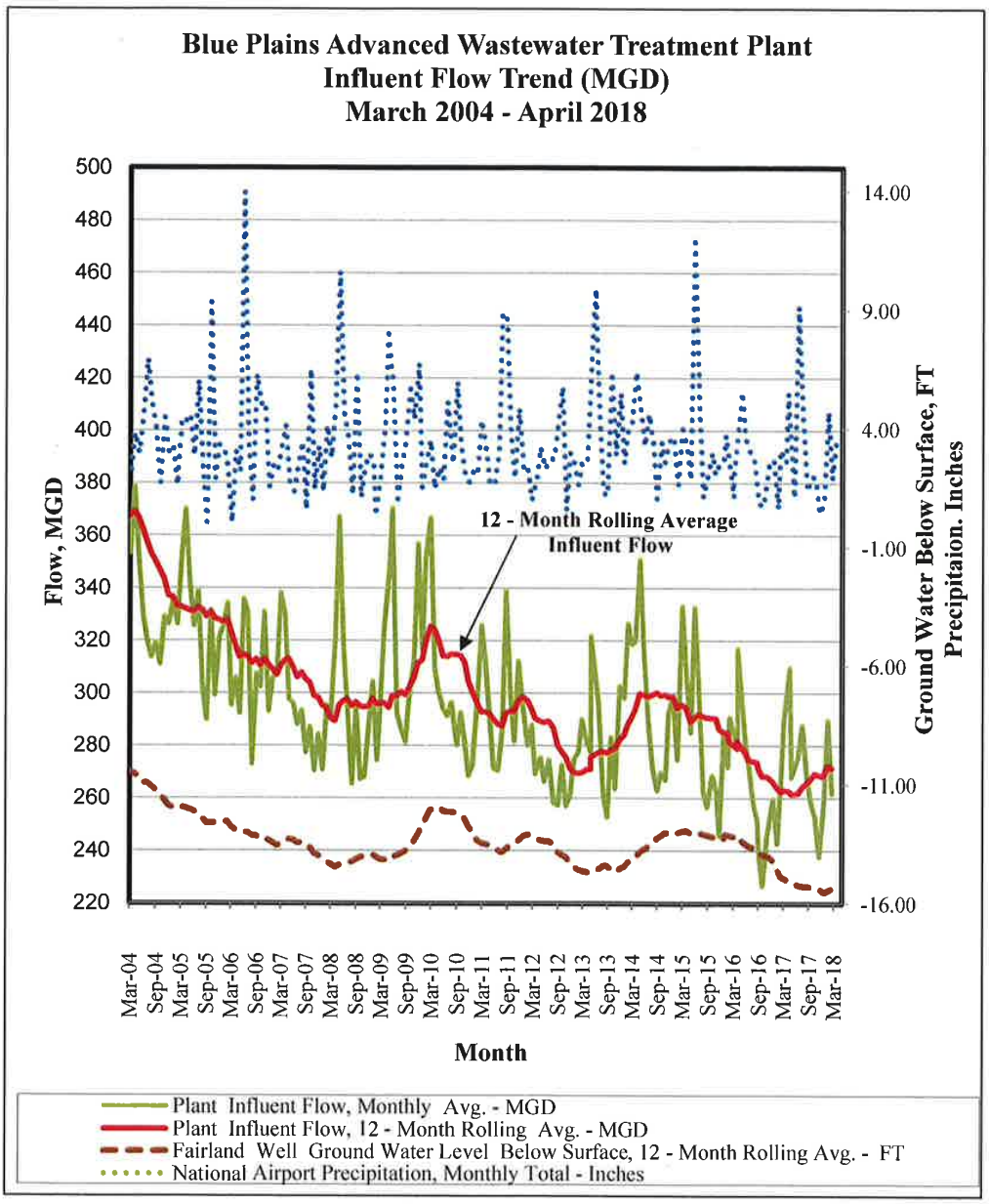
Aerial rendering of the Wet Weather Treatmentt Facility

Performance

During the April 15 and 16, 2018 wet weather event, a total of 170 million gallons (MG) of CSO was captured in the tunnel system, pumped, and treated using the ECF. A portion of the treated flow was directed to the main plant to maximize complete treatment and the remaining portion of the treated captured combined flow, or 54 MG, was disinfected, dechlorinated and discharged through Outfall 001. The quality of the effluent discharged was within anticipated ranges. Including the wet weather events that occurred during the last week of April, the total volume pumped and treated through the WWTF is 248 MG.

Plant Influent Flow Trend

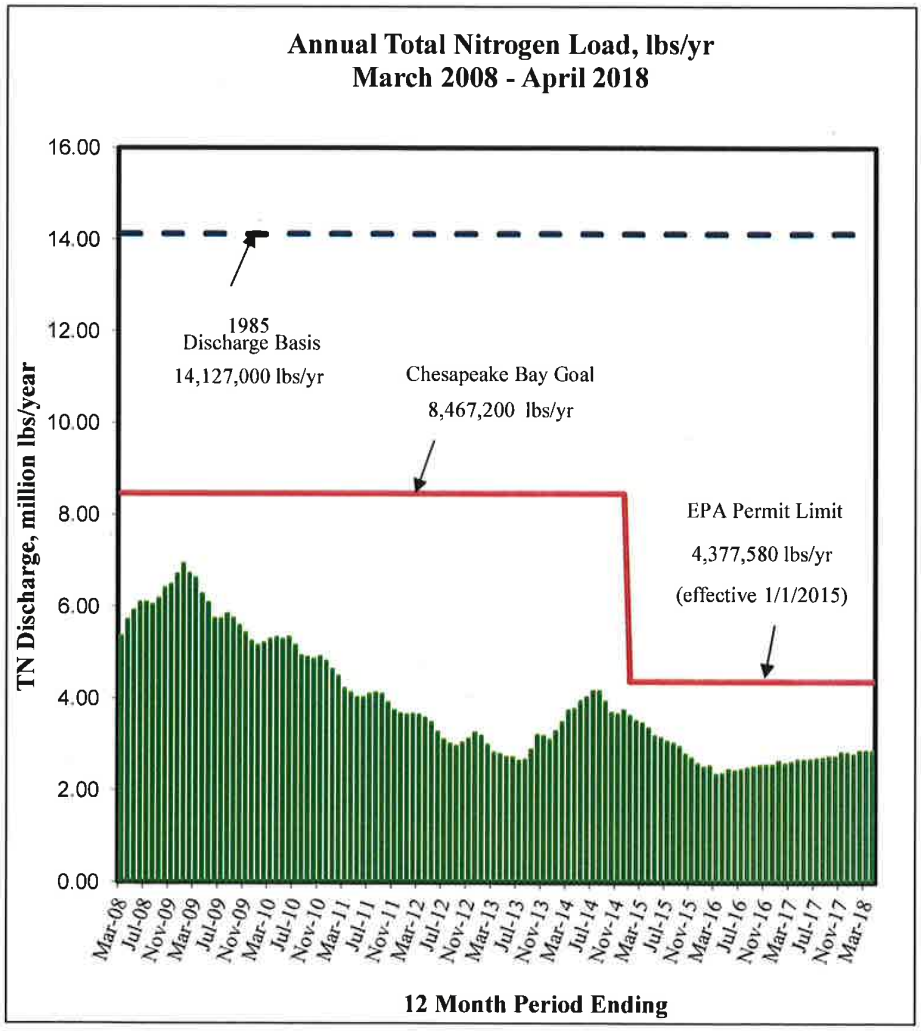
The graph below shows a long-term influent flow trend to the plant ending April 2018. While for any given month the flow is weather dependent, the 12-month rolling average influent flow has remained at or below 300 MGD since February 2011.



Blue Plains Total Nitrogen (TN) Removal – Performance

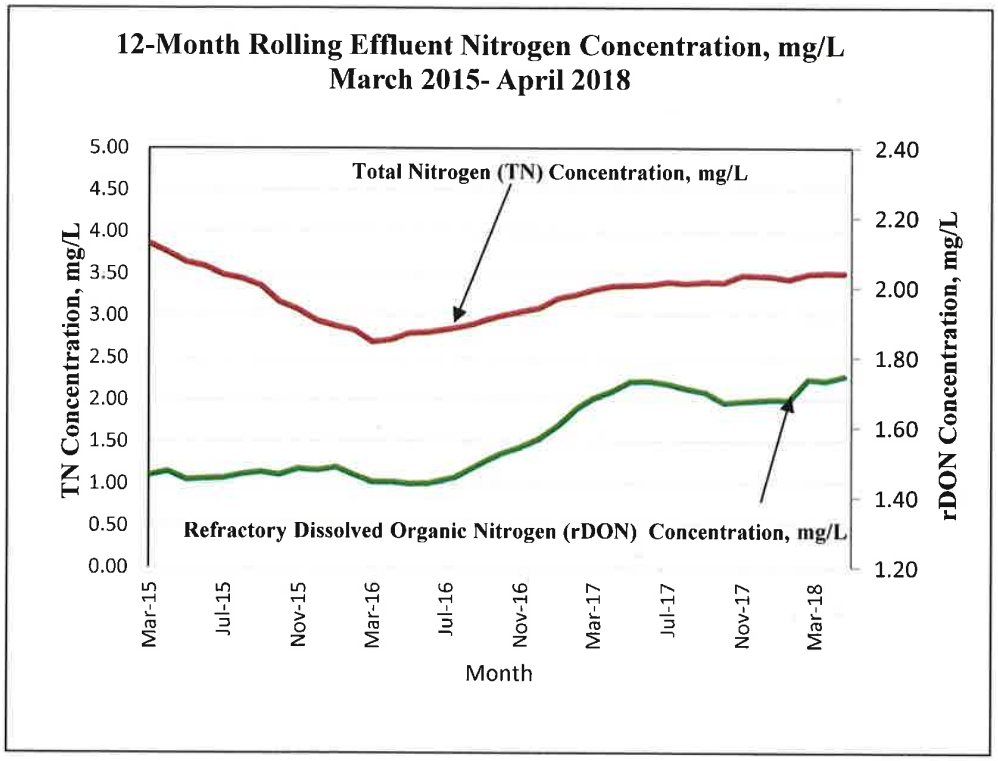
The graph below shows 12-month rolling TN discharge, in million pounds per year, over a 10-year period ending April 2018. In April 2018, the monthly average TN concentration and total load in the effluent were 3.42 mg/L and 239,940 lbs. respectively.

The total pounds of nitrogen discharged in the effluent during the current calendar year (through April 30, 2018) is 1,044,000 lbs and on track to remain below the NPDES permit discharge limit of 4,377,580 lbs. /year. The performance corresponds to average influent flow of 271 MGD, maximum month flow of 286 MGD, and average wastewater temperature above 16 °C observed during the period. The Blue Plains Enhanced Nitrogen Removal Facility (ENRF) is designed to meet the TN discharge limits at influent loads corresponding to annual average flows of 370 MGD, maximum month flows of 485 MGD, and operating wastewater temperatures below 12 °C.



Note: Since the commissioning of ENRF, the 12-month rolling average TN concentration and load in the effluent continued to decline and reached the lowest level in March of 2016. Although the TN load in the effluent remained well below the permit limit, the slight but steady increase since March of 2016 was mostly caused by higher concentrations of refractory dissolved organic nitrogen (rDON) in the filtrate (liquid removed from dewatering class A biosolids) returned for treatment in the plant's secondary and enhanced nitrogen removal processes. The rDON concentrations are within anticipated levels and have stabilized as shown on the chart below (green line).

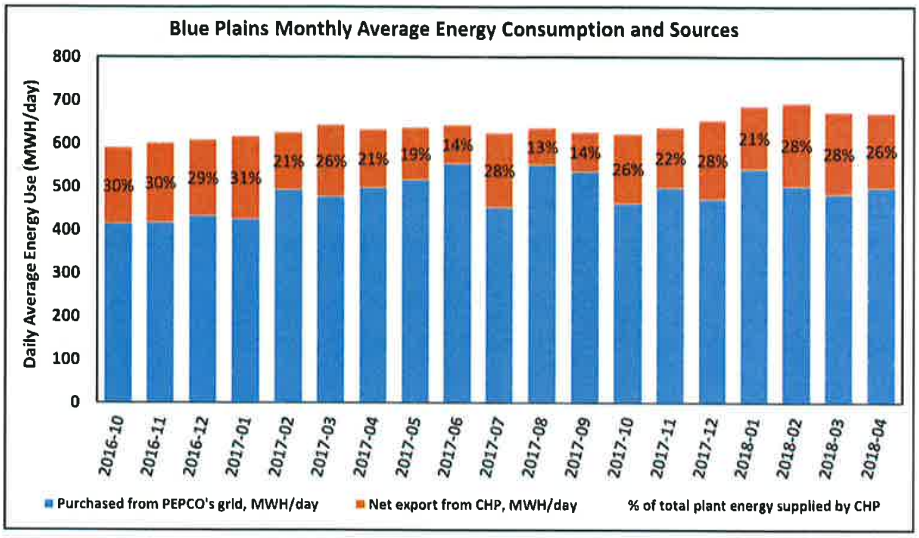
The monthly average TN concentrations in recent months were slightly elevated due to (a) major outages of Nitrification Reactors in November and December 2017 that were necessary to replace equipment (successfully completed), and (b) winter weather impact on the biological process.



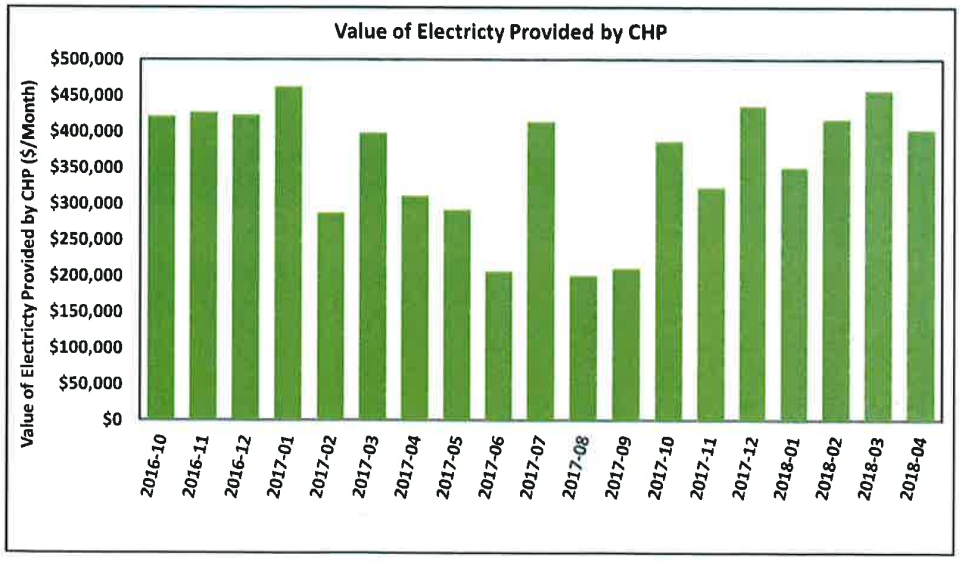
Blue Plains Electricity Generation and Usage

In April 2018, the average energy consumed at Blue Plains was 671 megawatt hours per day (MWH/day) or 2.16 MWH of electricity per million gallon of wastewater processed through complete treatment. The Combined Heat and Power (CHP) facility generated an average of 173 MWH/day, making up for 26% of total energy consumed at Blue Plains. The remaining 498 MWH/day was purchased from PEPCO

The graph below 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 determined by assuming a unit price of $78/MWH of electricity.



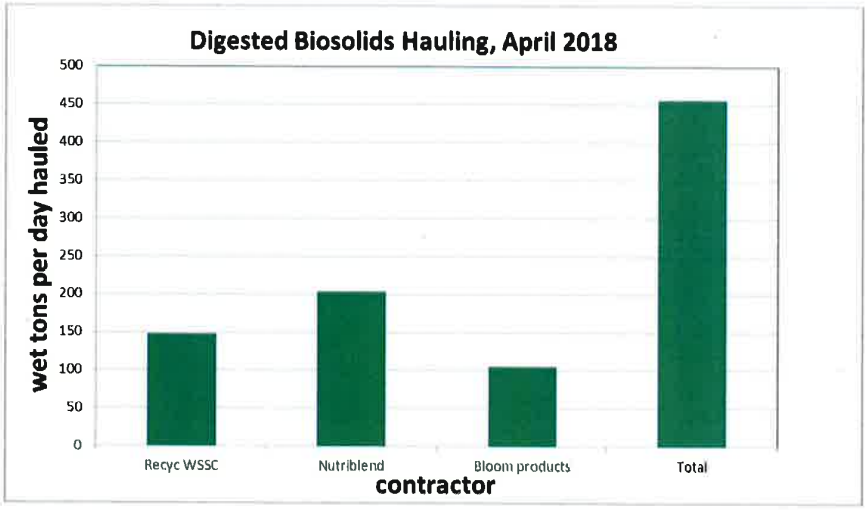
CHP Operation and Maintenance Status

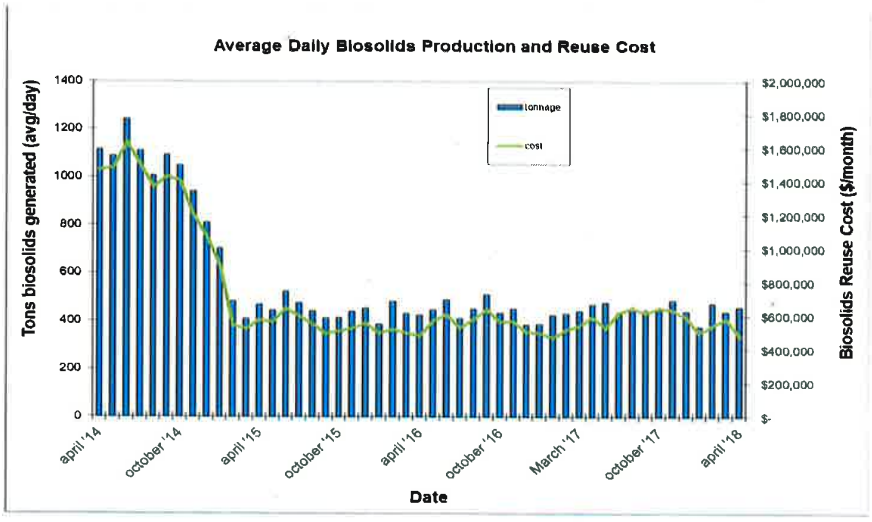
The recent repair works, completed on all three Heat Recovery Steam Generators (HRSG), have significantly improved the reliability of the CHP to produce and supply adequate high pressure steam to the Thermal Hydrolysis Process (THP) and maximize use of digester gas for electricity production. The average net electrical power production during the February 1 – April 30, 2018 time period was 185 MWH/day (7.7 MW) and is higher than the 144 MWH/day (5.9 MW) achieved during the same time period in 2017.

The annual reconciliation of the contract operation period that ended on September 30, 2017 is still in progress. The reconciliation will include, amongst other items, reimbursement payments for any power production shortfalls under the Digester Gas Electrical Power Production Guarantee, as set forth in the contract.

RESOURCE RECOVERY

In April, biosolids hauling averaged 456 wet tons per day (wtpd). The average percent solids for the Class A material was 31.2%. 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 April 2017. In April, diesel prices averaged $3.27/gallon, and with the contractual fuel surcharge, the weighted average biosolids reuse cost (taking into account the marketed material) was $36.40 per wet ton.

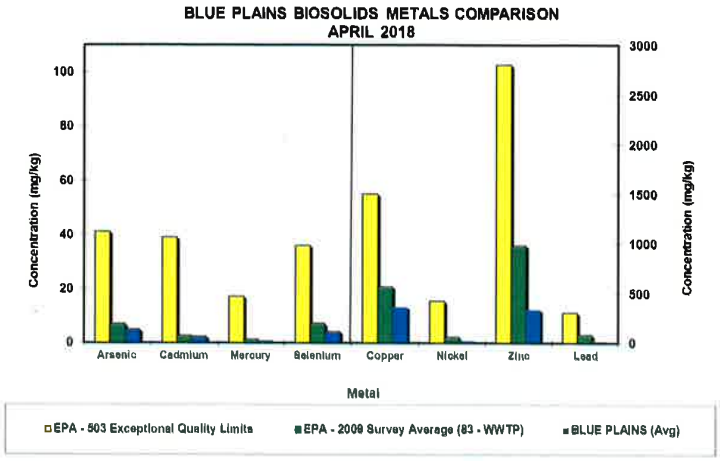




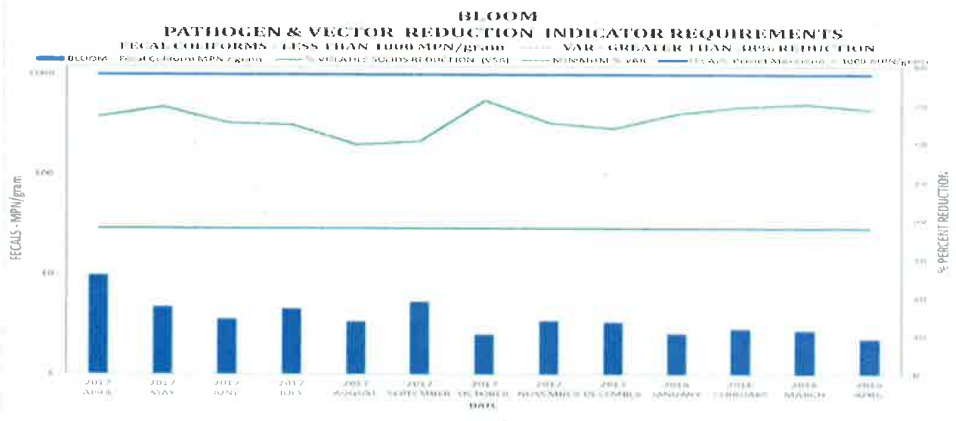
The average quanities of Class A biosolids transported and applied on farms by the two major contracts (WSSC's Recyc and DC Water's Nutriblend) and the quantites marketed as Bloom are shown on the graph above. In April, 3,165 wet tons of Bloom were distributed to 14 customers.

Product Quality

All biosolids produced during the month of April 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).

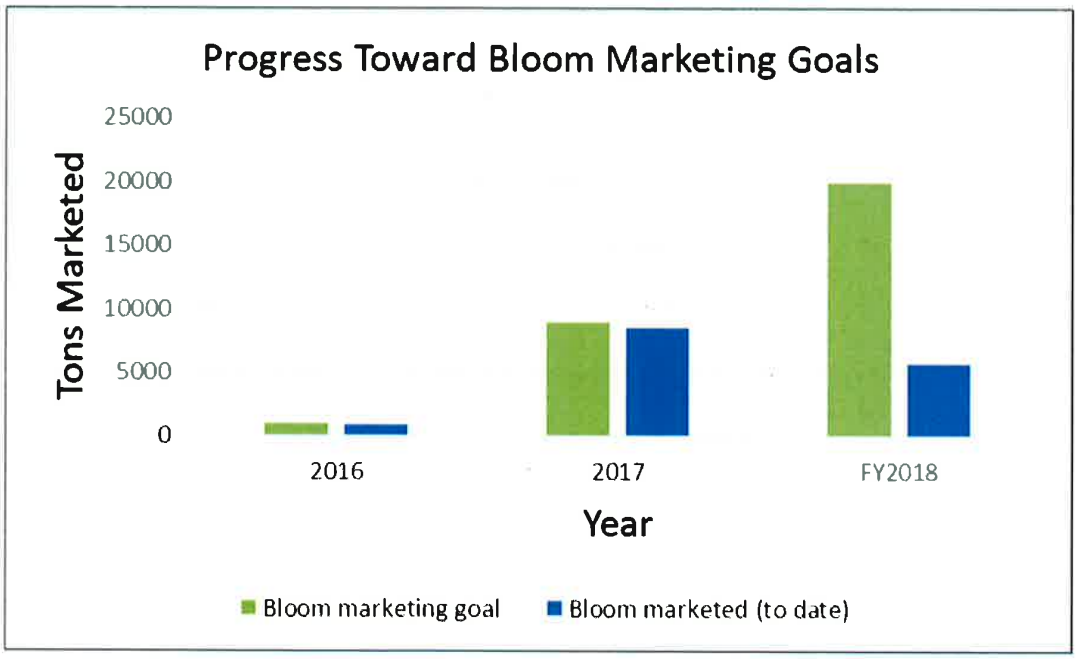


The graph below shows both Vector Attraction Reduction (VAR) and Fecal Coliform (FC) results in the Class A product, both of which are required to maintain the Class A Exceptional Quality (EQ) status. Vector Attrraction Reduction is measured by the reduction in Volatile Solids (VS) or organic compounds 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 coliform levels in the Class A product. Fecal coliforms are indicators of disease causing organisim (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.



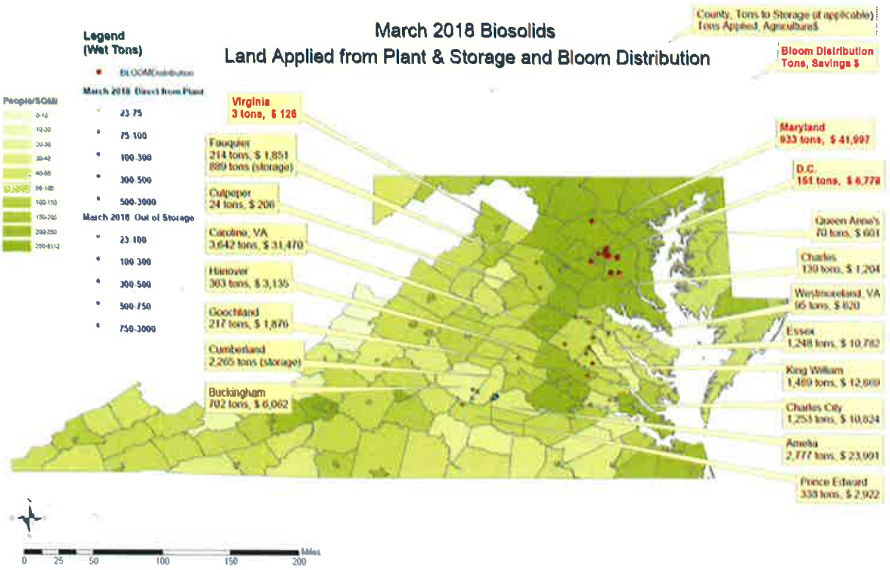
Bloom Marketing

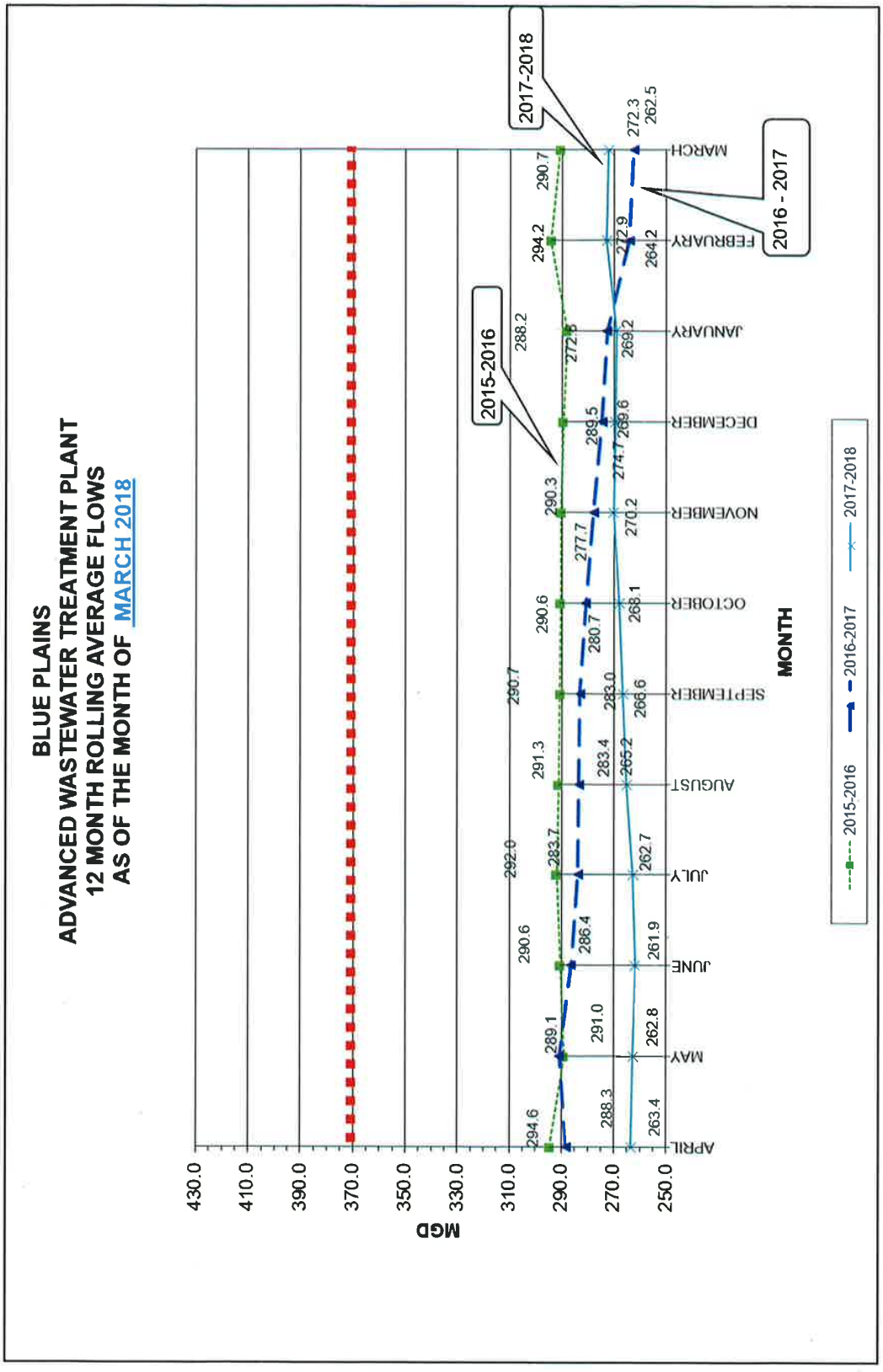
Bloom sales as of May 1st total 4,910 tons for the calendar year. This represents 29% of the 20,000 tons goal Goals were set last year for this year, and we have reason to believe we will meet these goals. The Bloom team achieved, on April 23rd, the first day that we sold more Bloom (500 tons) than we produced that day (450 tons). This will not happen every day (for now) but proves that there is demand in the market for a high quality, low odor biosolids product, and justifies the digestion design that included consideration for product quality with every choice made for process equipment. We were able to sell more product than we produced because we held inventory over the weekend for hauling on Monday. To maximize sales revenue and minimize costs for hauling, we are considering options for Bloom inventory storage and management, to have material on hand when demand is highest. Options include a covered pad behind the digesters and procurement of offsite land.

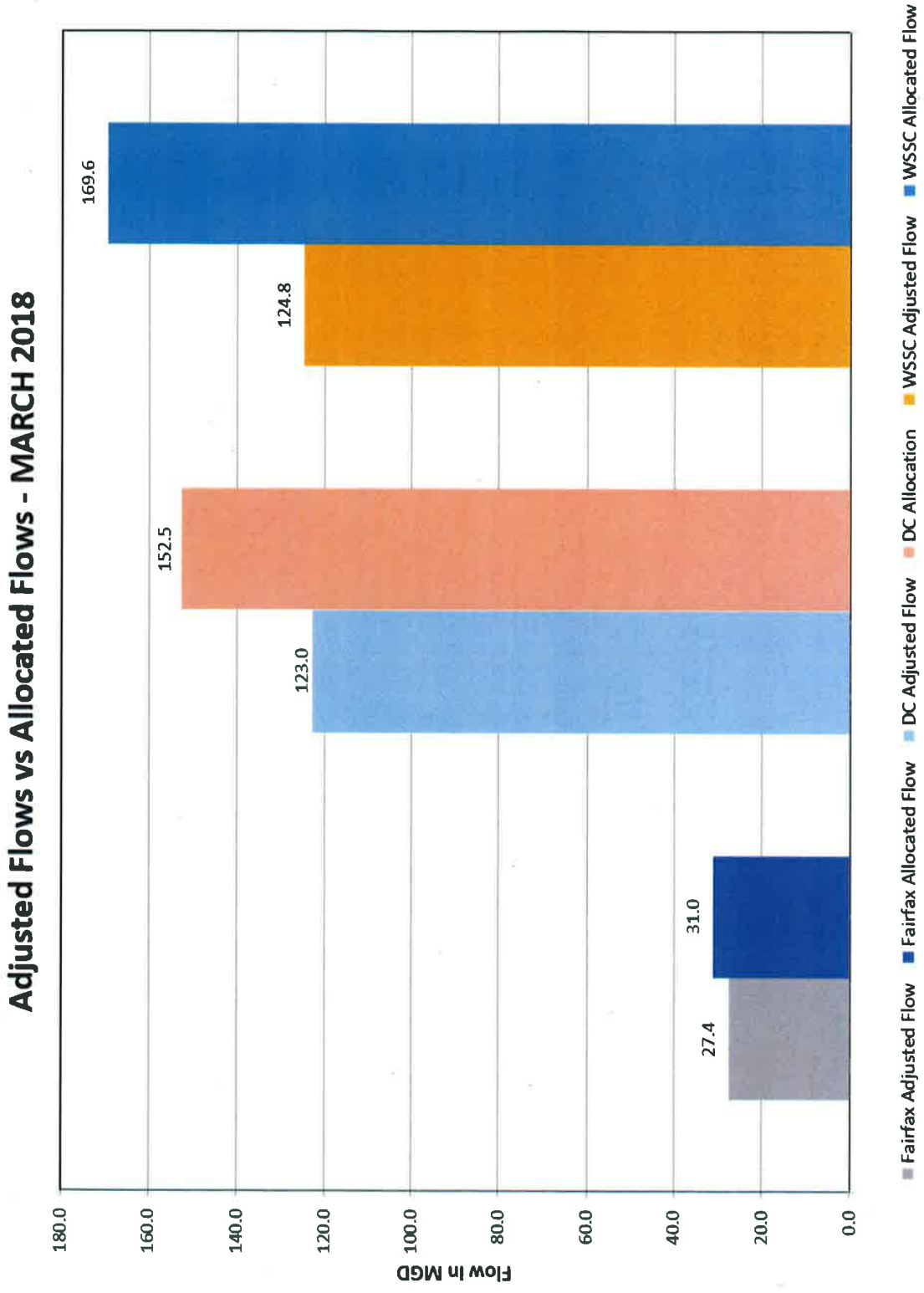


Bloom Reuse and Value Map

This map shows where Bloom was reused on agricultural land and sold into the market as a soil amendment product in March 2018 Marketing activities occurred predominantly in MD, and DC. We now possess our Distribution and Marketing permit for the state of VA, and are beginning to make deliveries to VA.




BLUE PLAINS
ADVANCED WASTEWATER TREATMENT PLANT
12 MONTH ROLLING AVERAGE FLOWS
AS OF THE MONTH OF MARCH 2018
2017-2018
2016 - 2017
2015-2016
MGD
MONTH
2015-2016
2016-2017
2017-2018
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH


Adjusted Flows vs Allocated Flows - MARCH 2018
Flow In MGD
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
169.6
124.8
152.5
123.0
31.0
27.4
Fairfax Adjusted Flow
Fairfax Allocated Flow
DC Adjusted Flow
DC Allocation
WSSC Adjusted Flow
WSSC Allocated Flow