

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Board of Directors

*Meeting of the
Environmental Quality and Sewerage Services
Committee*

*5000 Overlook Avenue, SW, Room 407
Thursday, May 19, 2016
9:30 a.m.*

	I. Call to Order	James Patteson Chairperson
9:30 a.m.	II. AWTP Status Updates 1. BPAWTP Performance	Aklile Tesfaye
9:45 a.m.	III. Clean Rivers Project Status Update	Carlton Ray
10:00 a.m.	IV. Action Items Joint Use 1. Contract No.15-PR-DETS-03 -RJN Group 2. WAS-12-017-AA-RAH- Complete Building Services 3. Contract No. WAS-12-007-AA-SH, Nutri-Blend Inc. Non-Joint Use 1. None	Len Benson / Dan Bae
10:15 a.m.	V. Quarterly CIP Report	Liliana Maldonado
10:30 a.m.	VI. Headquarters Building Project Update	George Hawkins
10:55 a.m.	VII. Other Business/Emerging Issues	
11:00 a.m.	VIII. 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

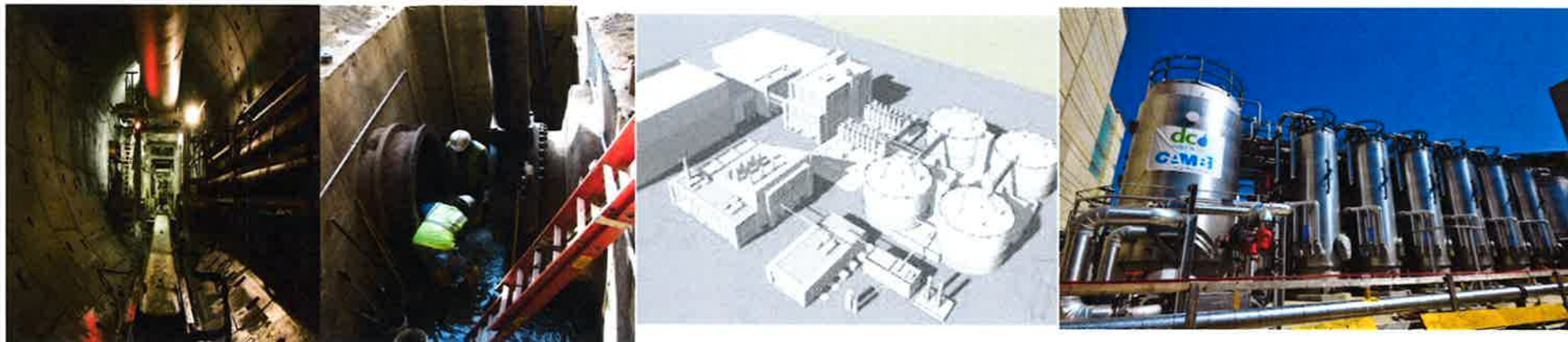
who constitute a quorum to discuss: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); contract negotiations under D.C. Official Code § 2-575(b)(1); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4); collective 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. AGM Blue Plains: Provide a root cause and financial impact report on the CHP turbine engine damage. **{To be scheduled for future meeting}**
2. Chief Engineer: Modify language under 'Federal Grant Status' statement on future fact sheets to read "The Construction contract may be funded in part by prior congressional appropriations for CSO project". **{Completed}**
3. Director Procurement: Resubmit fact sheet for option year four (4) for biosolids management in May 2016. **{Completed}**
4. Chief Engineer: Modify language under 'Purpose of the Contract' statement for non-joint use fact sheet, Contract No. 130260 (Inland Waters Pollution Control, Inc.) and replace the word "or" with "and". **{Completed}**

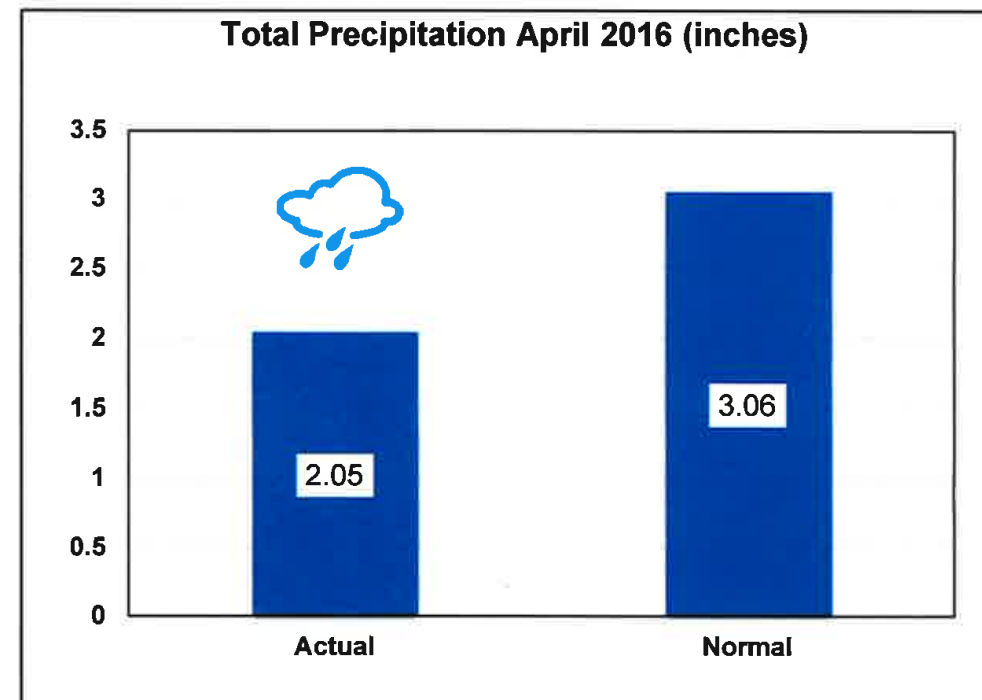
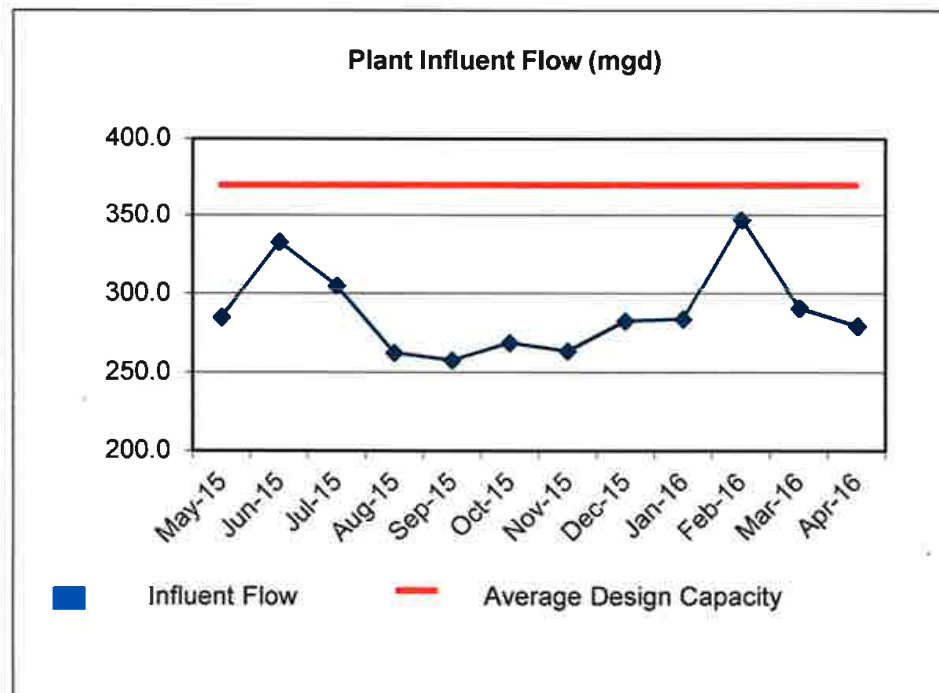


Blue Plains AWWTP Performance April 2016





Plant Influent Flow

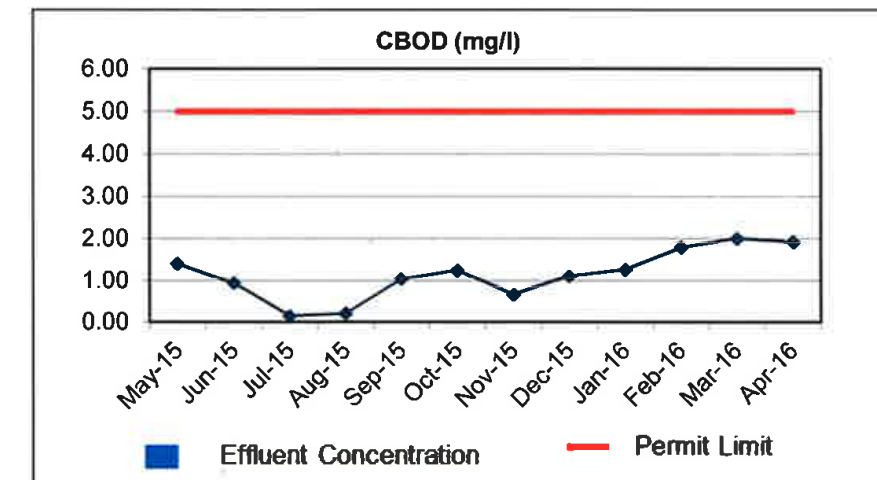
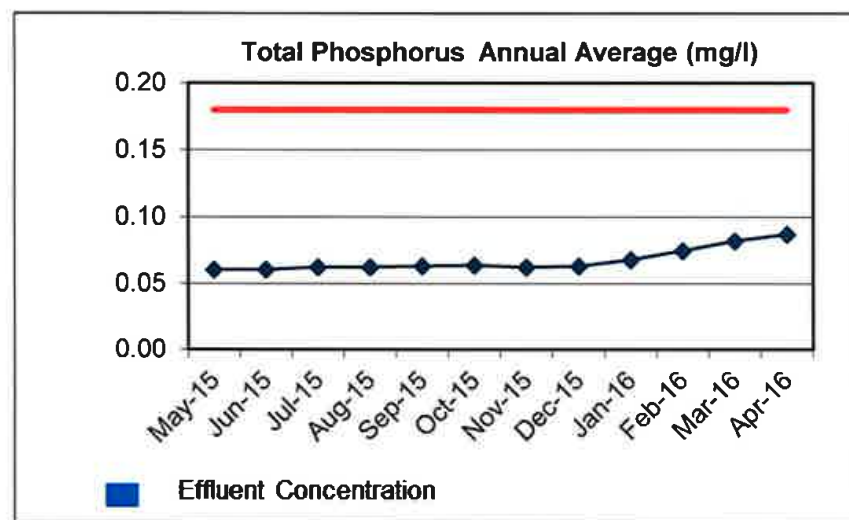
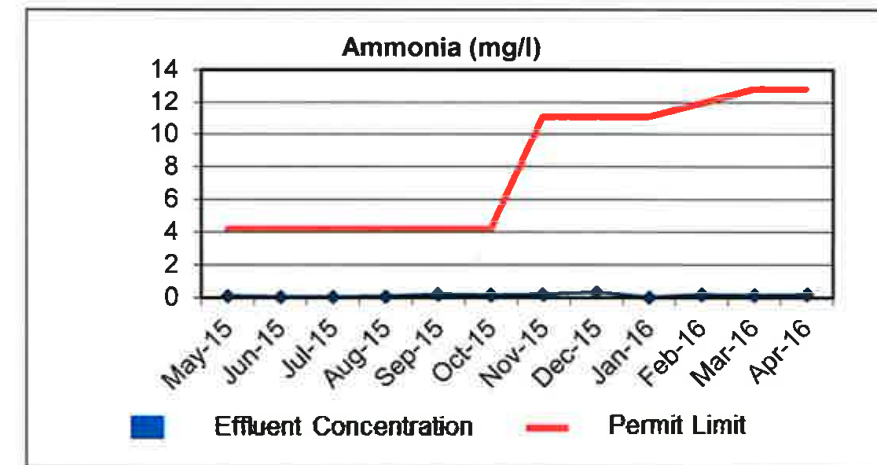
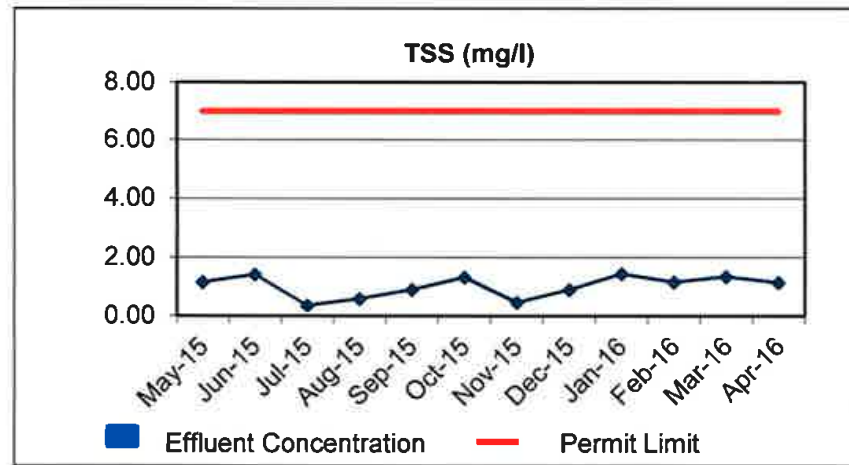


- The monthly average influent flow ~ 280 MGD
- 12-month rolling average flow ~ 287 MGD
- Excess Flow (April 7, 2016) ~ 7.5 MG



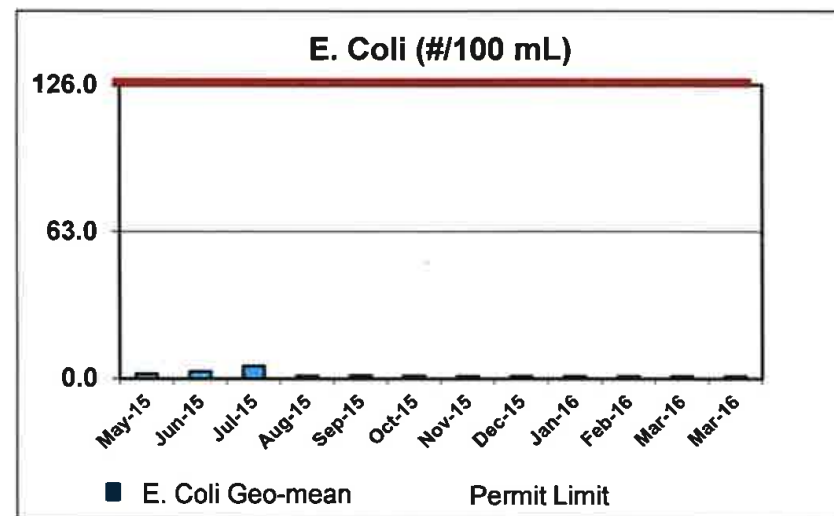
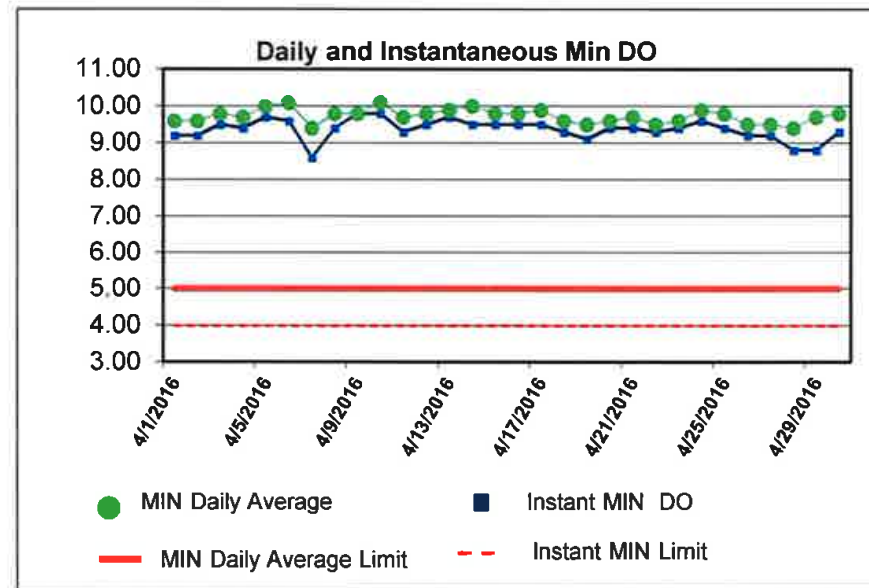
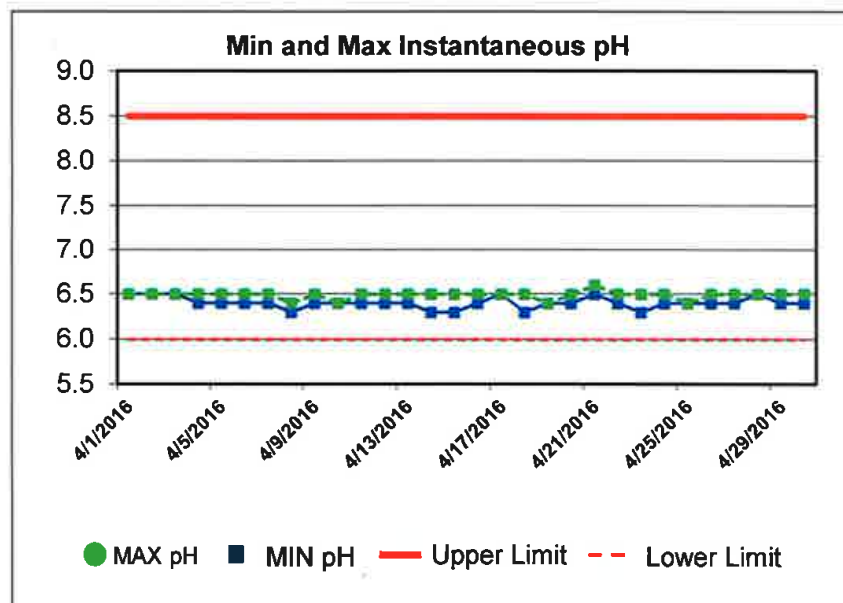
Plant Effluent - Quality

☐ Performance was excellent with all parameters well within the NPDES permit limits





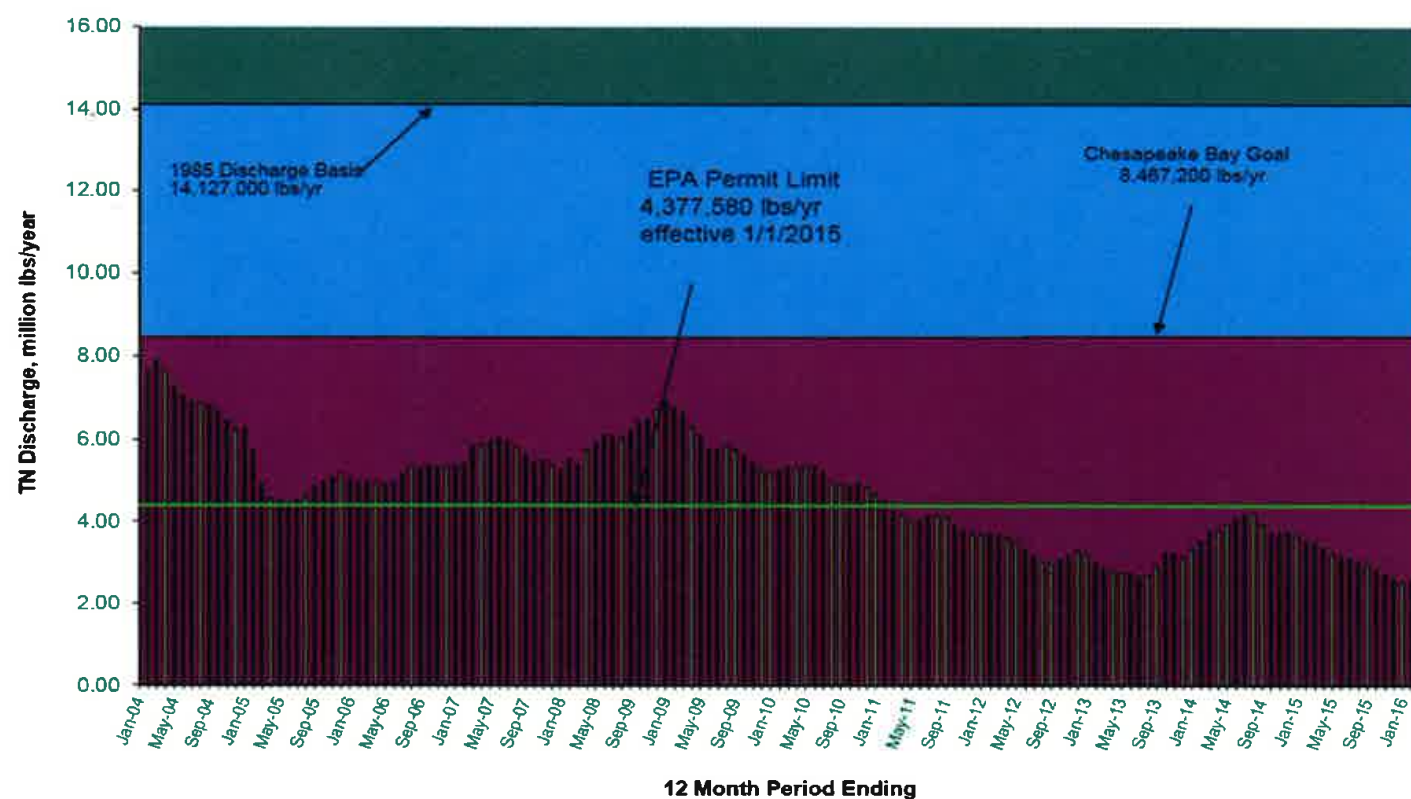
Plant Effluent - Quality





Total Nitrogen Removal

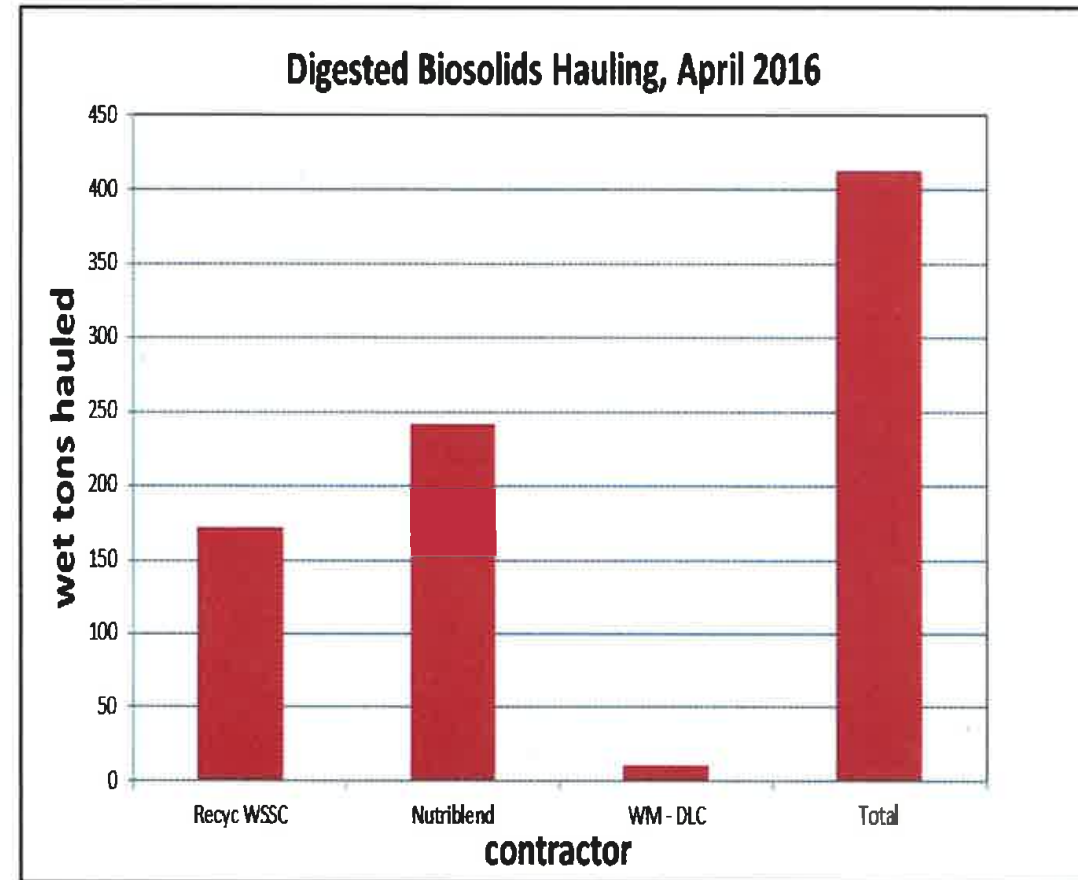
Annual Total Nitrogen Load, lbs/yr



- ❑ Average effluent concentration ~ 2.94 mg/L
- ❑ Total discharged (01/01 – 04/30/2016) ~ 892,088 lbs.
- ❑ On target to meet 4,377,580 lbs./yr. permit limit



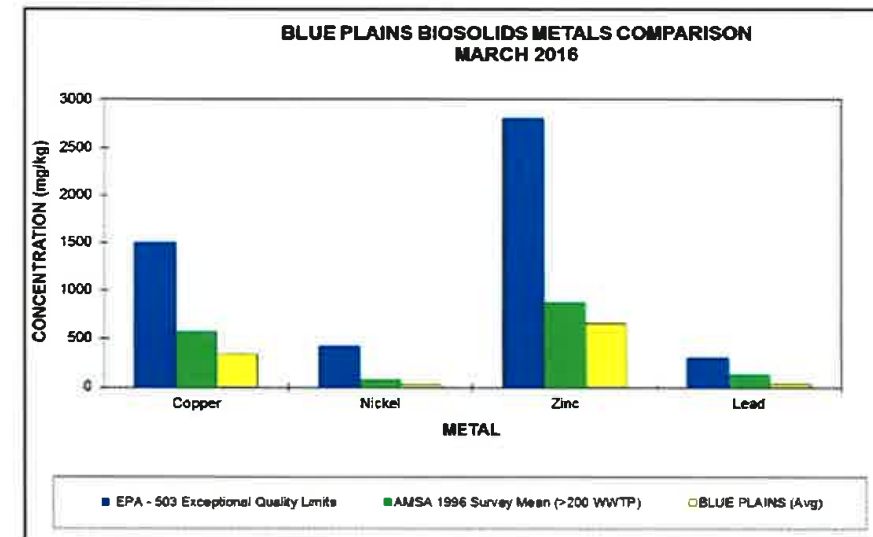
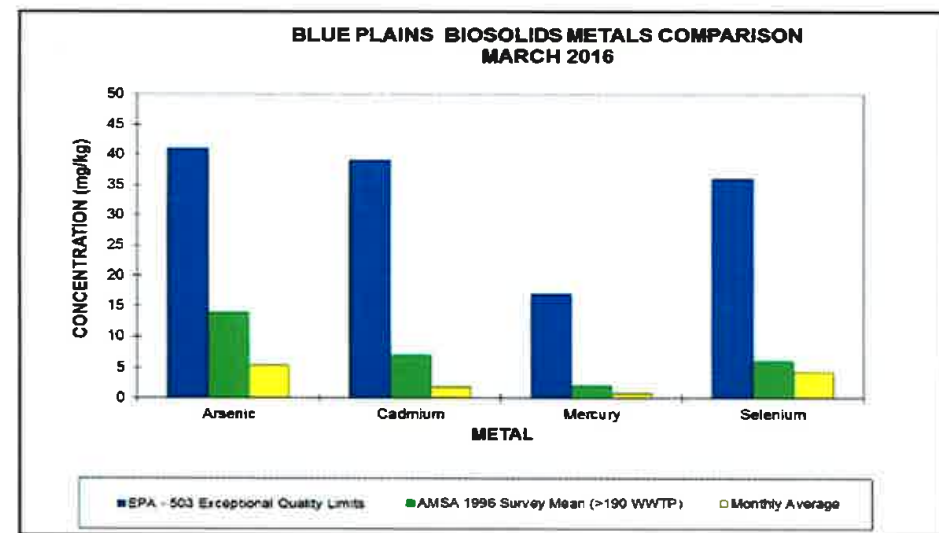
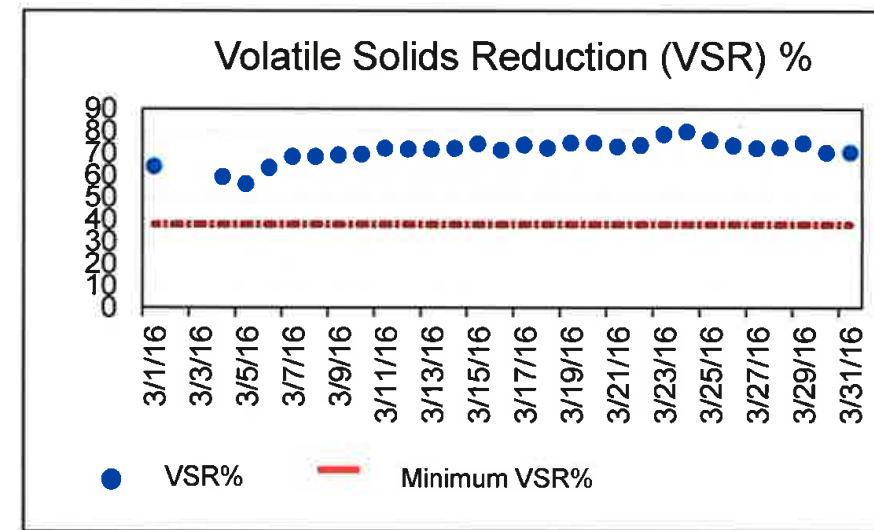
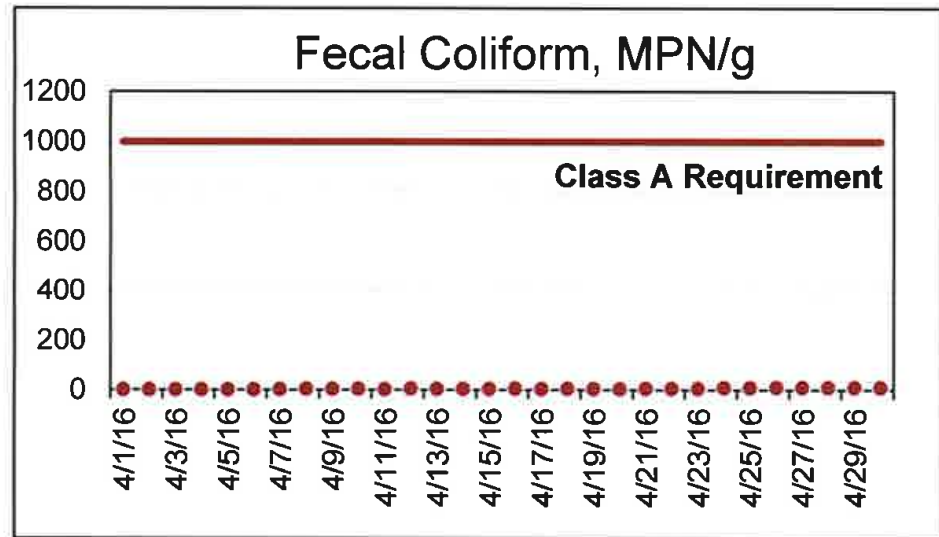
Biosolids - Production



- ☐ Average biosolids produced ~ 423 wet tons/day
- ☐ Most materials land applied

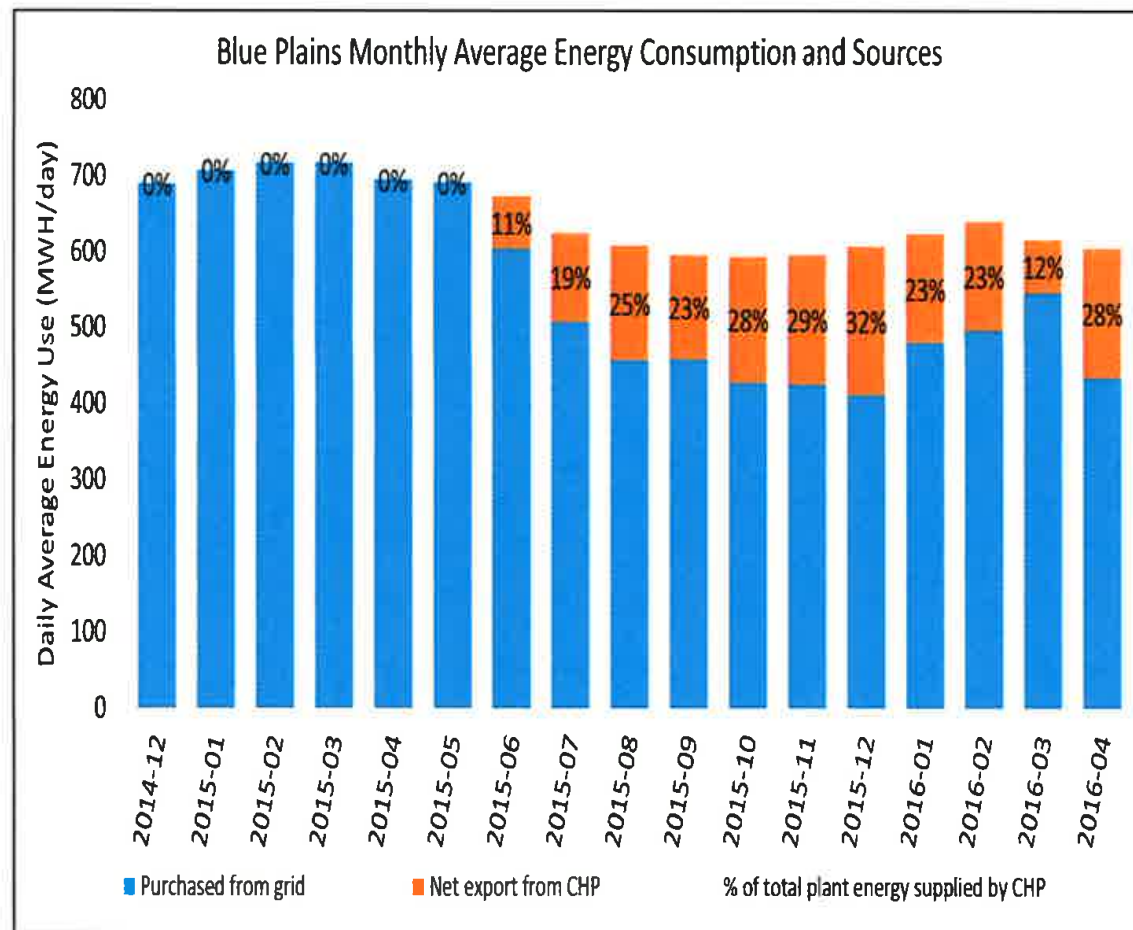


Biosolids – Exceptional Quality





Energy - Consumption/Generation

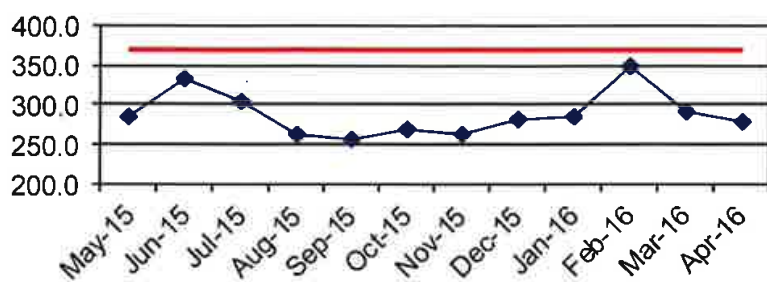


- Average energy consumed ~ 605 MWH/day
- Average energy purchased ~ 434 MWH/day
- Average CHP energy generated ~ 171 MWH/day or 28% of energy consumed at Blue Plains

DEPARTMENT OF WASTEWATER TREATMENT April 2016

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 280 MGD. There was 7.5 MG of Excess Flow during this reporting period. The following Figures compare the plant performance with the corresponding NPDES permit

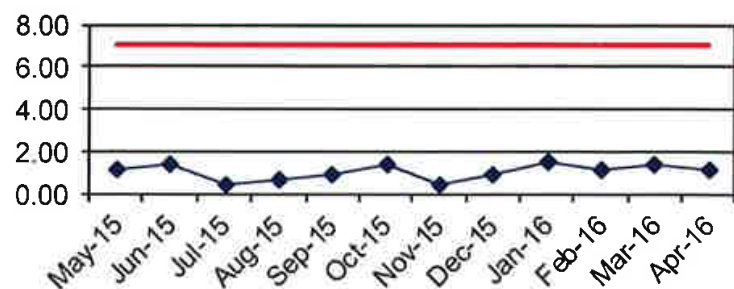
Plant Influent Flow (mgd)



■ 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.

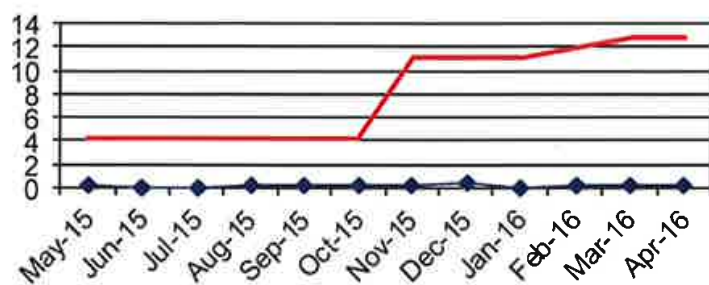
TSS (mg/l)



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

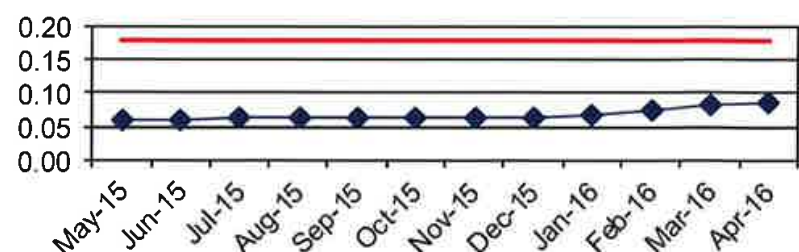
Ammonia (mg/l)



■ Effluent NH3 — Permit Limit

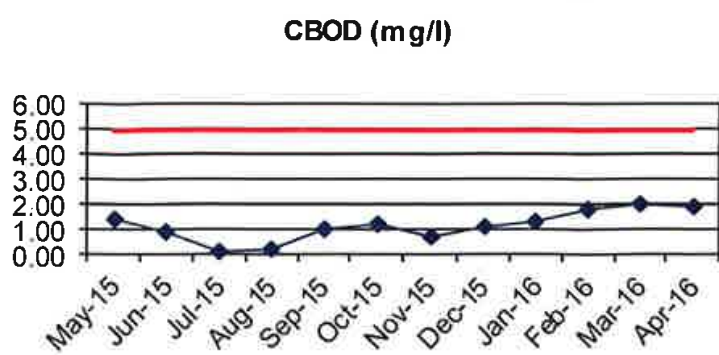
The Ammonia Nitrogen (NH₃-N) is a measure of the nitrogen found in ammonia. For the month, effluent NH₃-N concentration averaged 0.18 mg/L and is below the average 11.1 to 12.8 mg/L limit.

Total Phosphorus Annual Average (mg/l)



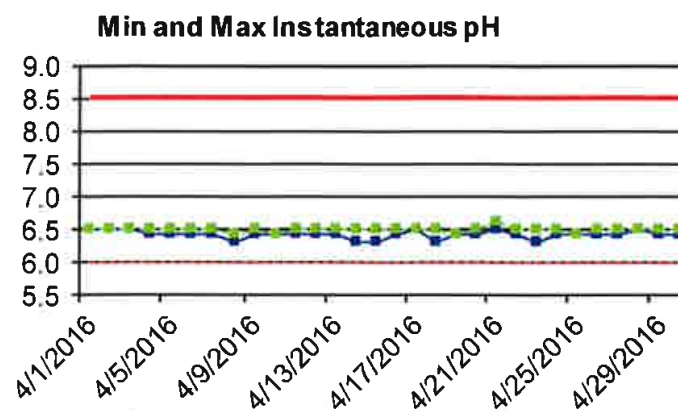
■ Effluent TP — Permit Limit

The Total Phosphorus (TP) is a measure of the particulate and dissolved phosphorus in the effluent. The annual average effluent TP concentration is 0.08 mg/L, which is below the 0.18 mg/L annual average limit.



■ Effluent CBOD — Permit Limit

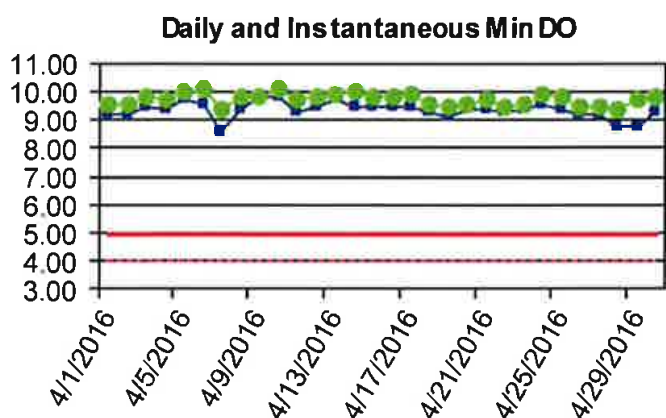
Carbonaceous Biochemical Oxygen Demand (CBOD) is a measure of the amount of dissolved oxygen required for the decomposition of organic materials. The effluent CBOD concentration averaged 1.93 mg/L (partial month), which is below the 5.0 mg/L limit.



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

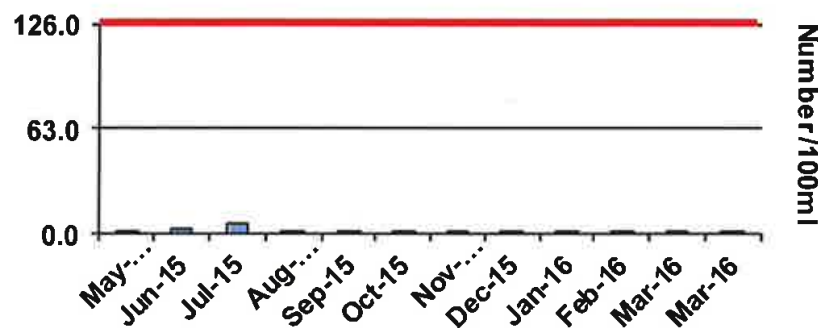
pH is a measure of the intensity of the alkalinity or acidity of the effluent. The minimum and maximum pH observed were 6.3 and 6.6 standard units, respectively. The pH was within the permit limits of 6.0 and 8.5 for minimum and maximum respectively.

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 9.4 mg/L. The minimum instantaneous DO reading is 8.6 mg/L. The minimum permit limits are 5.0 mg/L and 4.0 mg/L respectively.



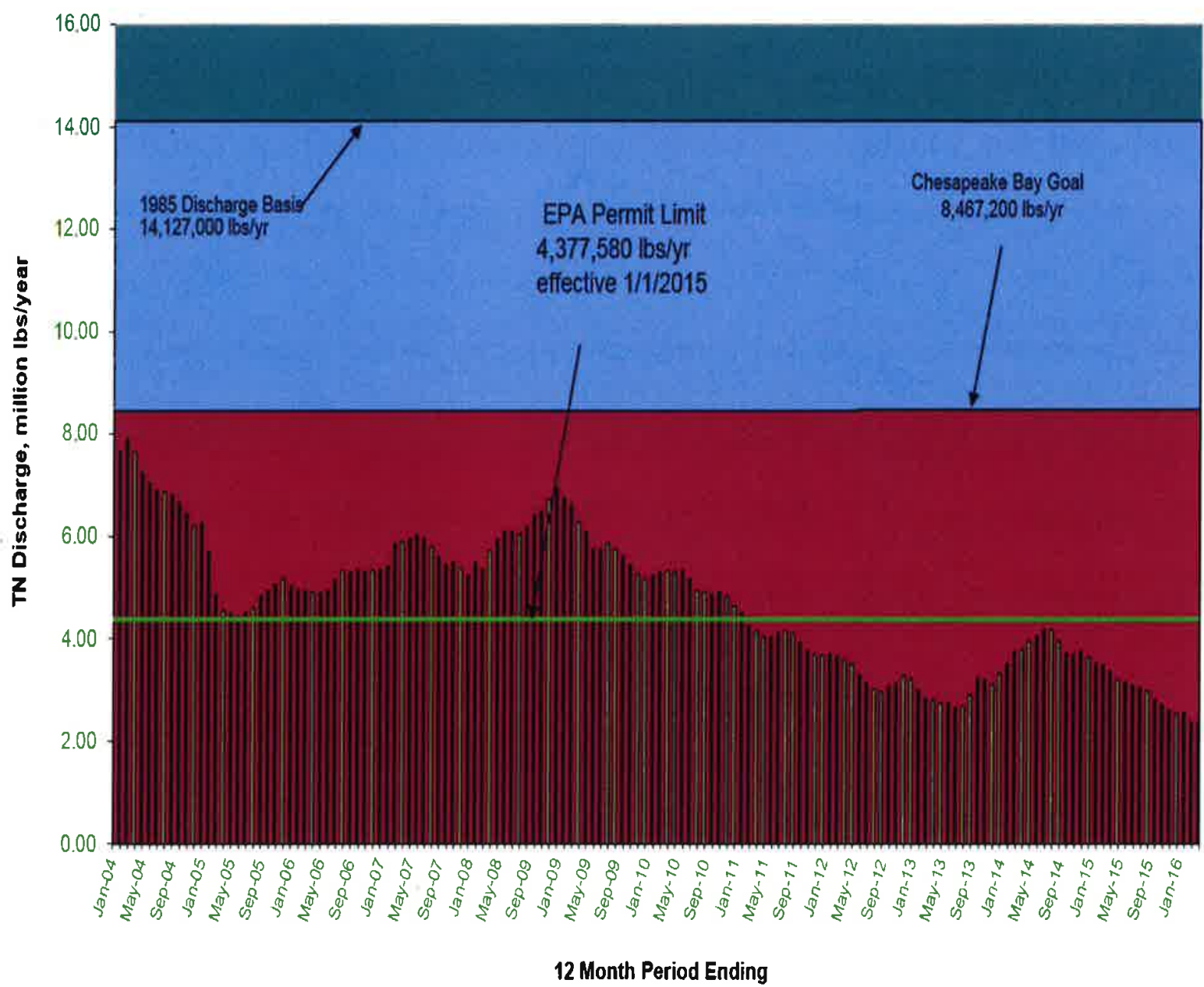
■ E. Coli Geomean — Permit Limit

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.

BIOLOGICAL NUTRIENT REMOVAL PERFORMANCE

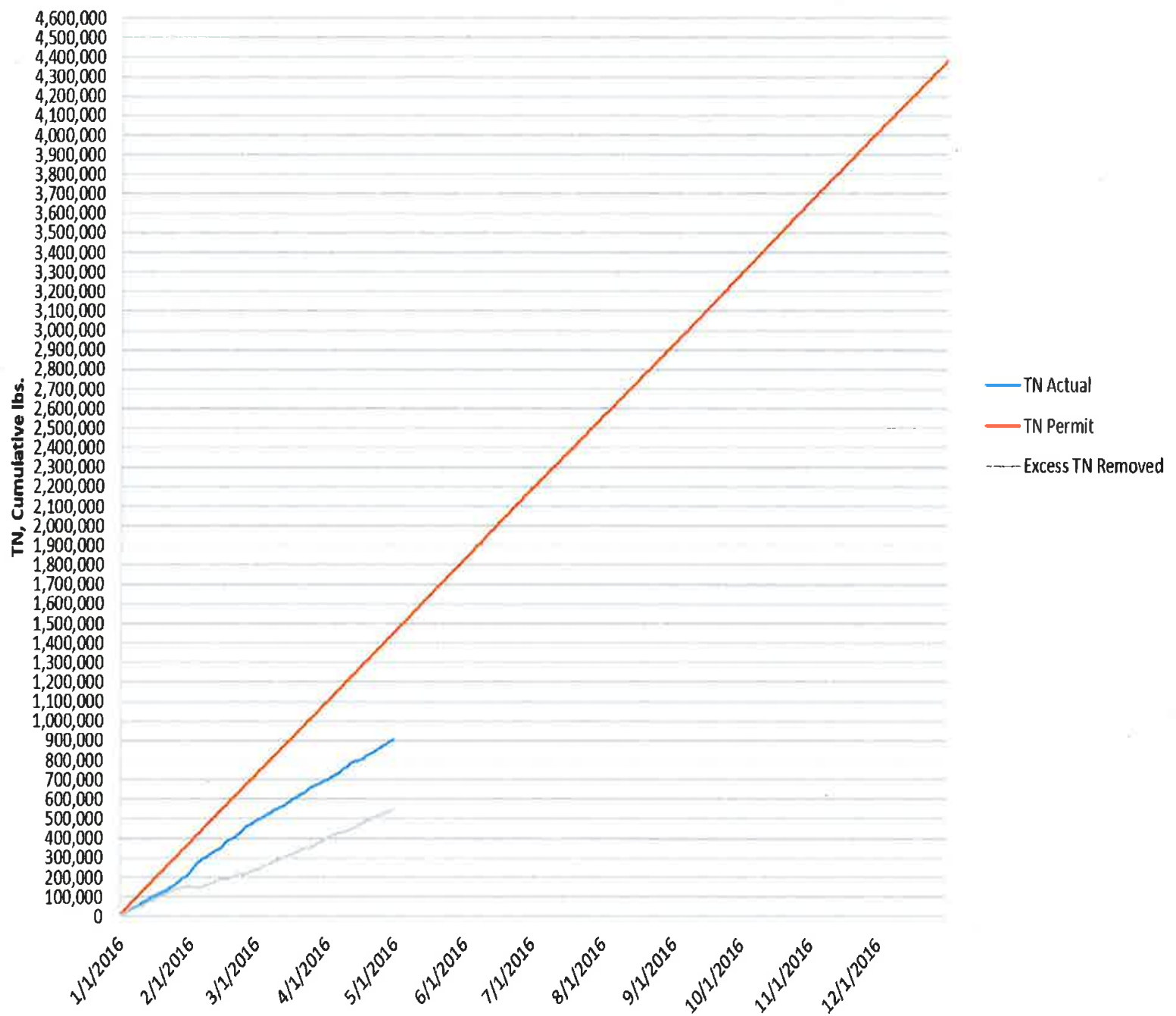
During the month, the full-scale BNR process produced an effluent with average total nitrogen concentration of 2.94 mg/l. The figure below shows Blue Plains effluent total nitrogen (TN) since the implementation of full scale BNR.

Annual Total Nitrogen Load, lbs/yr



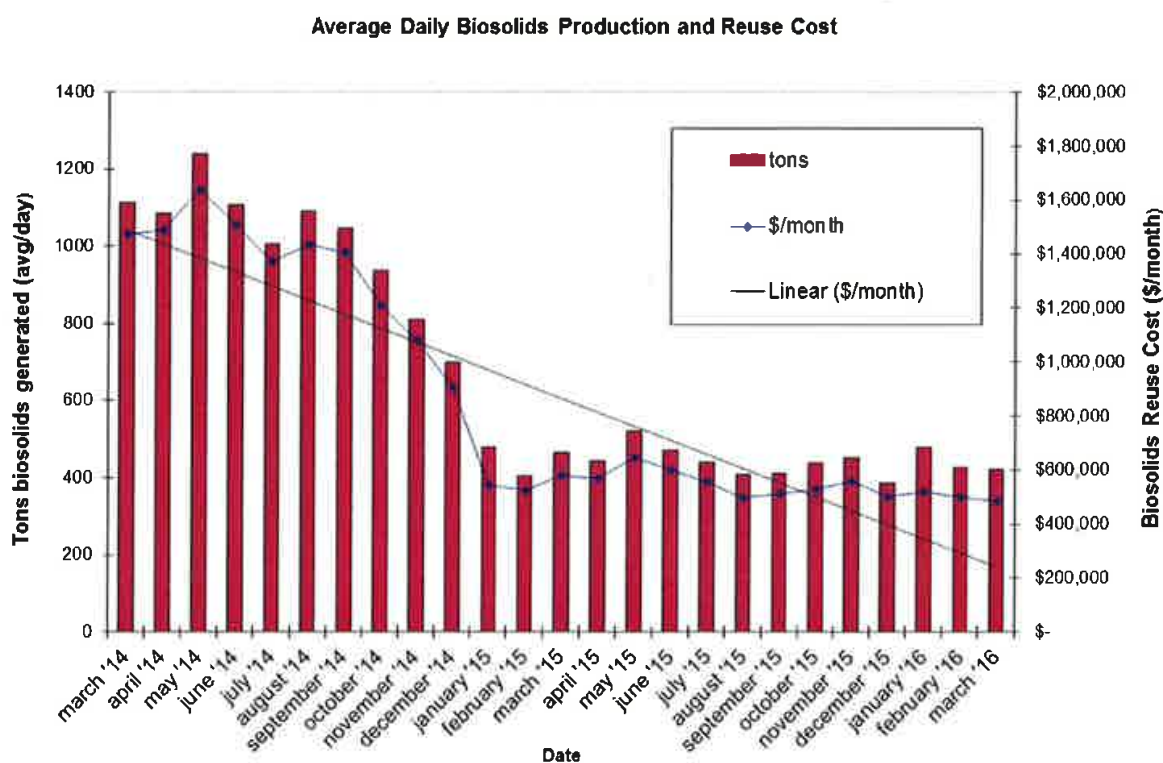
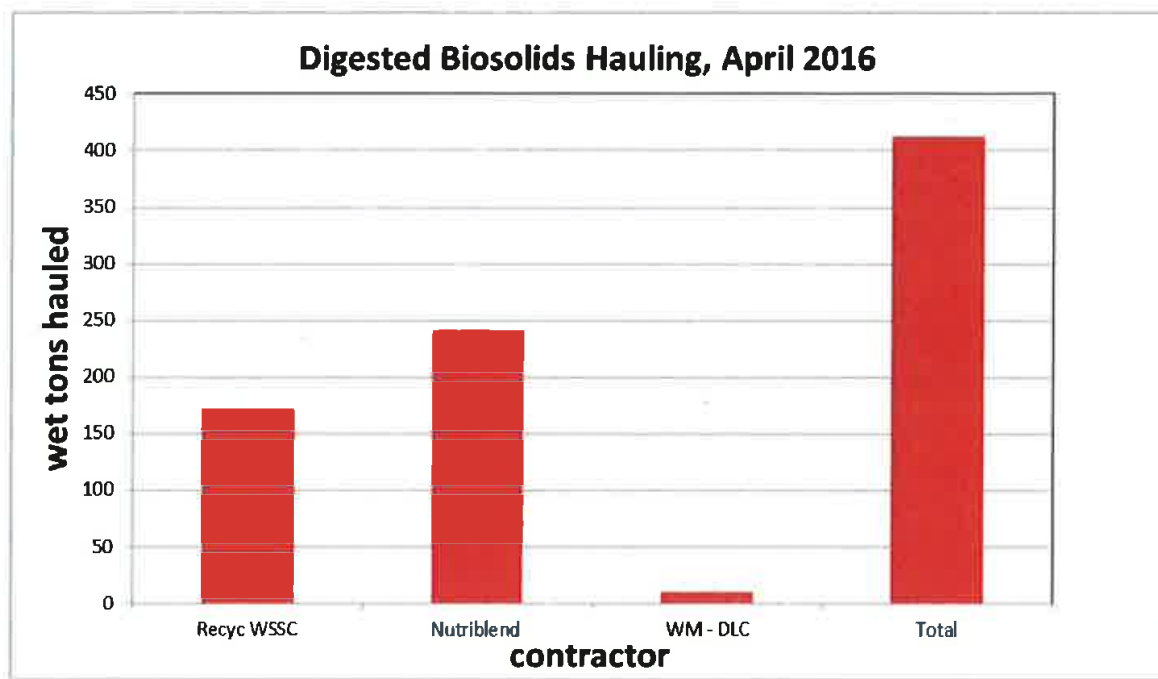
TN Removal at Blue Plains is on target to meet limits for 2016 as seen in the graph below.

2016 Cumulative Nitrogen



BLUE PLAINS RESOURCE RECOVERY REPORT – APRIL 2016

In April, biosolids hauling averaged 423 wet tons per day (wtpd). The graph below shows the total hauling by contractor for the month of April. The average percent solids for the digested material was 32.0%. In April, staff continued sending biosolids to a Waste Management landfill in VA for use as daily cover. This is a pilot program designed to demonstrate to the state that this is a suitable material for daily cover. It will run for 6 months at a price that is less than either of our other contracts. This will give DC Water a vital winter time option, if extended, that can take all our material in winter months if so desired. At the end of April the Cumberland County storage pad had approximately 0 tons (~25,000 tons capacity), Cedarville lagoon had approximately 0 tons of Blue Plains biosolids (~30,000 tons capacity), Goochland pad had 0 tons, and Fauquier lagoon had 0 tons (~15,000 tons capacity).



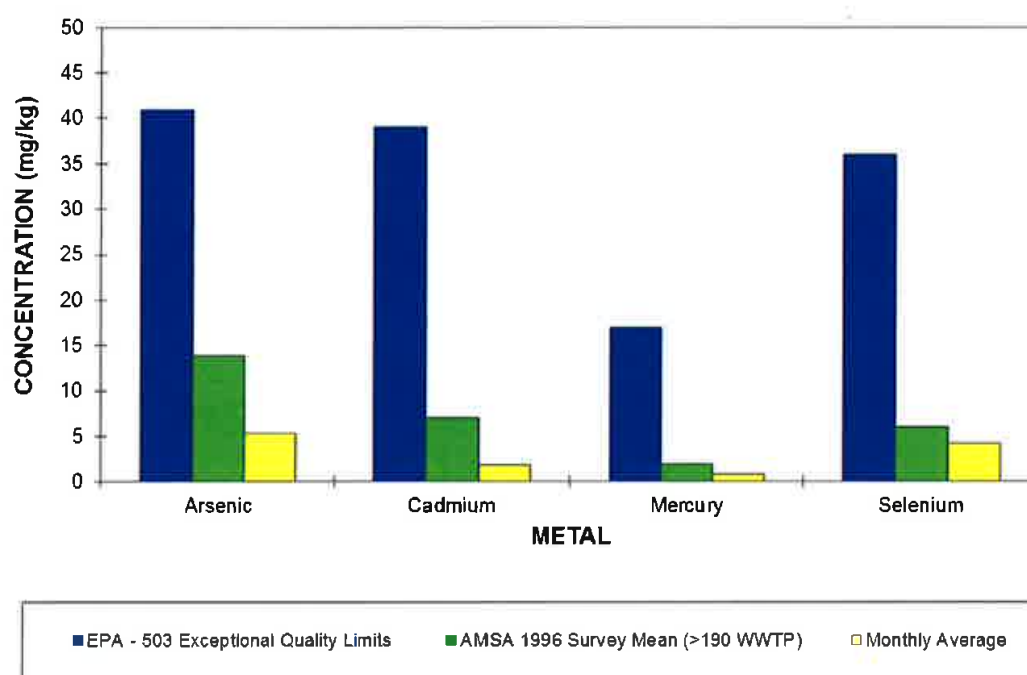
Please note the drop in biosolids management costs (second graph below, right vertical axis) due to the reduction in solids production since digesters came on line, and also due

to the drop in fuel costs. In April, diesel prices averaged \$2.32/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost in April for the three contracts was \$38.12/wet ton.

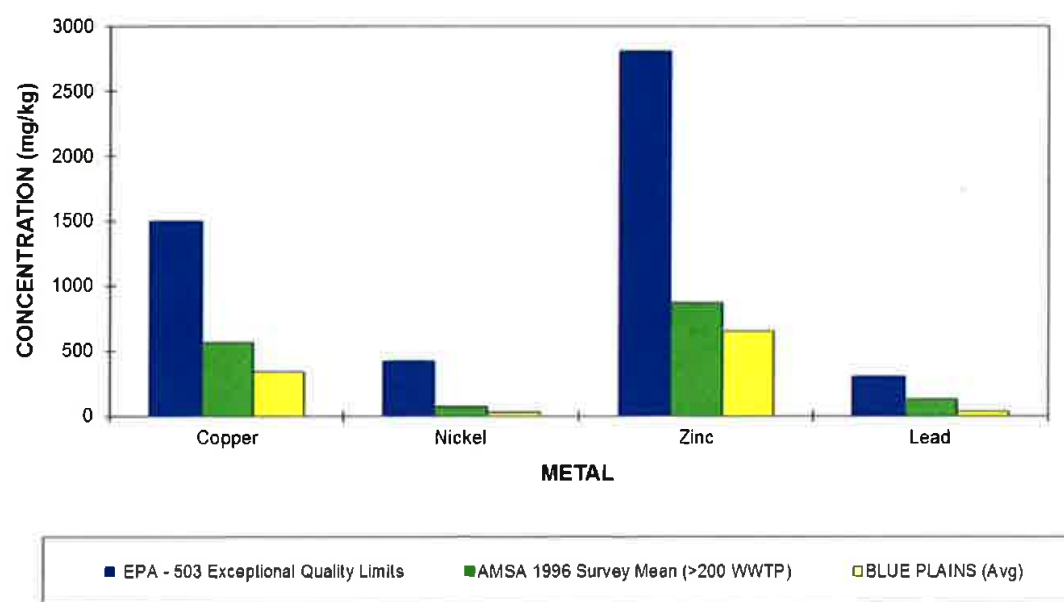
Product Quality

The graph below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of March 2016. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits and the national average.

**BLUE PLAINS BIOSOLIDS METALS COMPARISON
MARCH 2016**



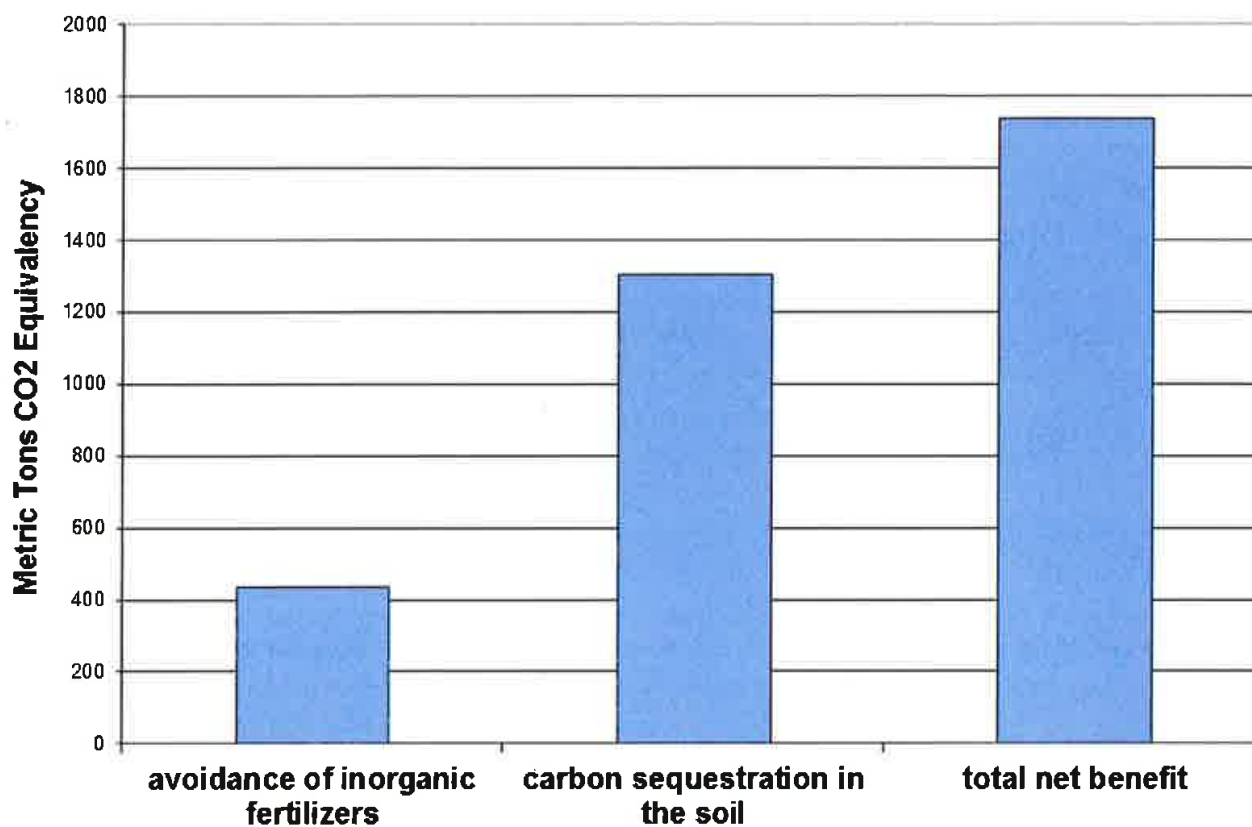
**BLUE PLAINS BIOSOLIDS METALS COMPARISON
MARCH 2016**



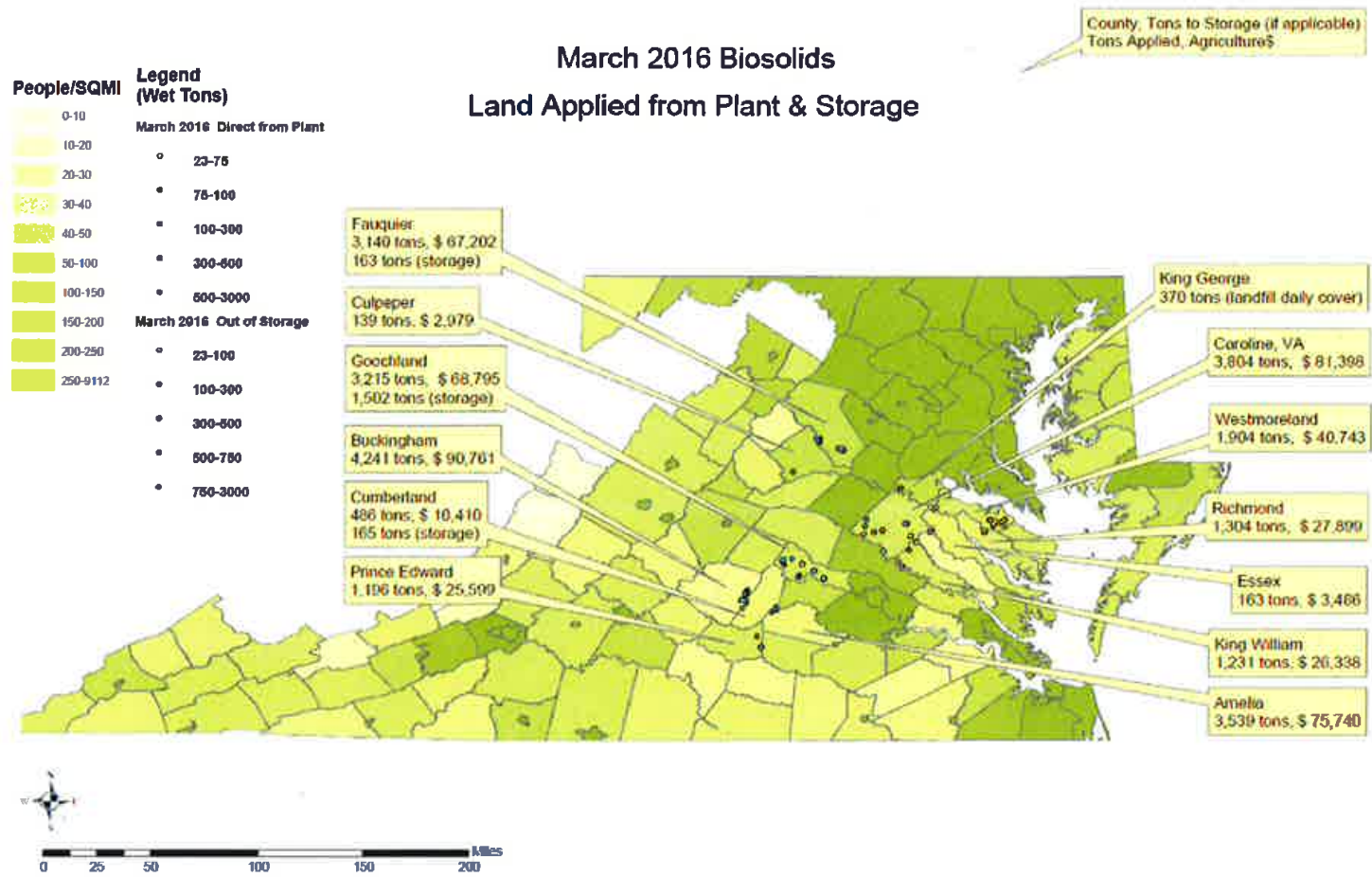
Environmental Benefits

The quantity land applied in March coming directly from the plant and from storage facilities equaled 24,362 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 1739 metric tons CO₂ equivalent avoided emissions. This is equivalent to taking 13,542,808 car miles off the road in the month of February (assumes 20 mpg, 19.4 lb CO₂ equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since, January 2006 is 145,207 metric tons CO₂ equivalent.

**DCWater Biosolids Recycling Program
Greenhouse Gas Balance Benefits
March 2016 Totals**

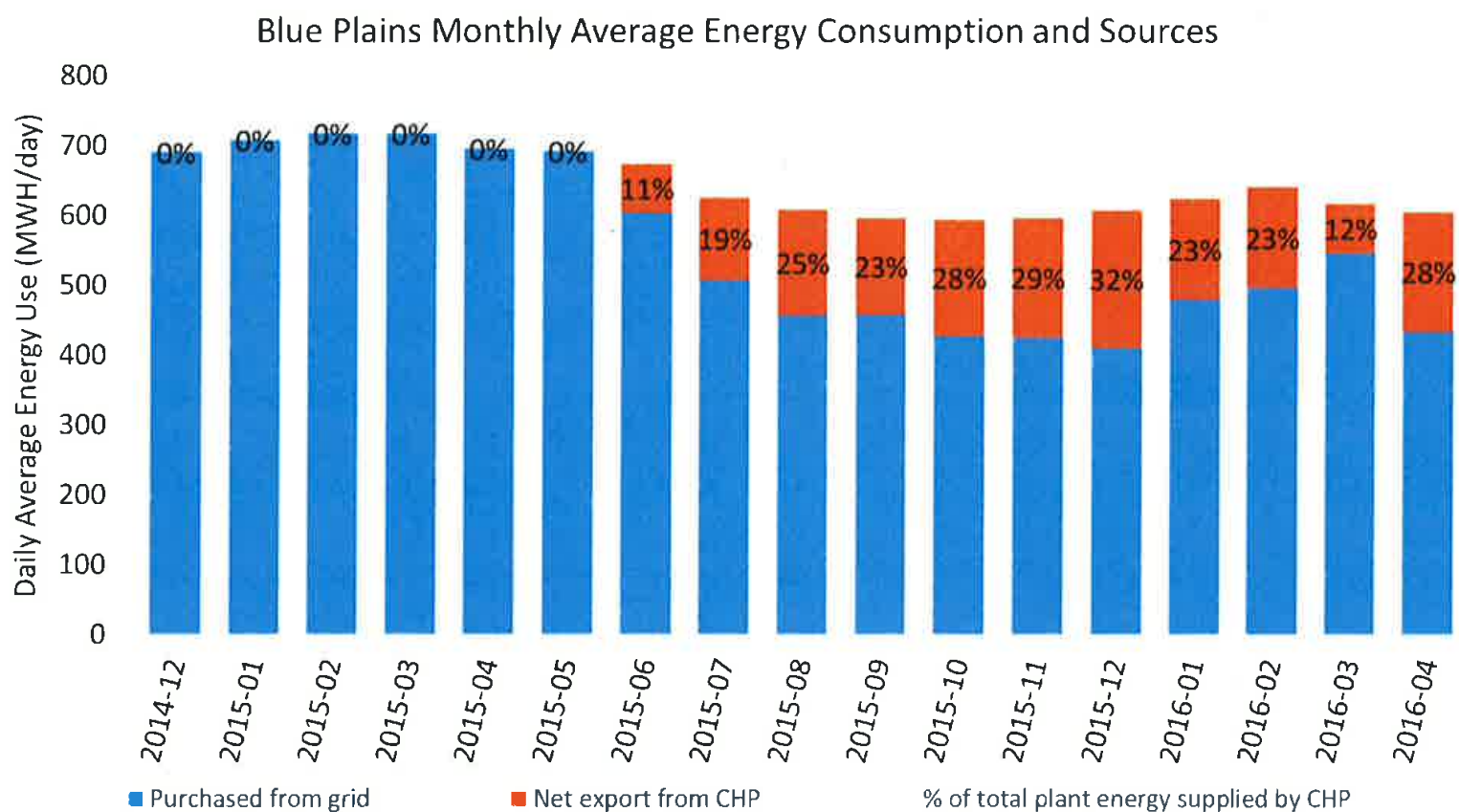


Biosolids Applications and Agricultural \$'s for March 2016

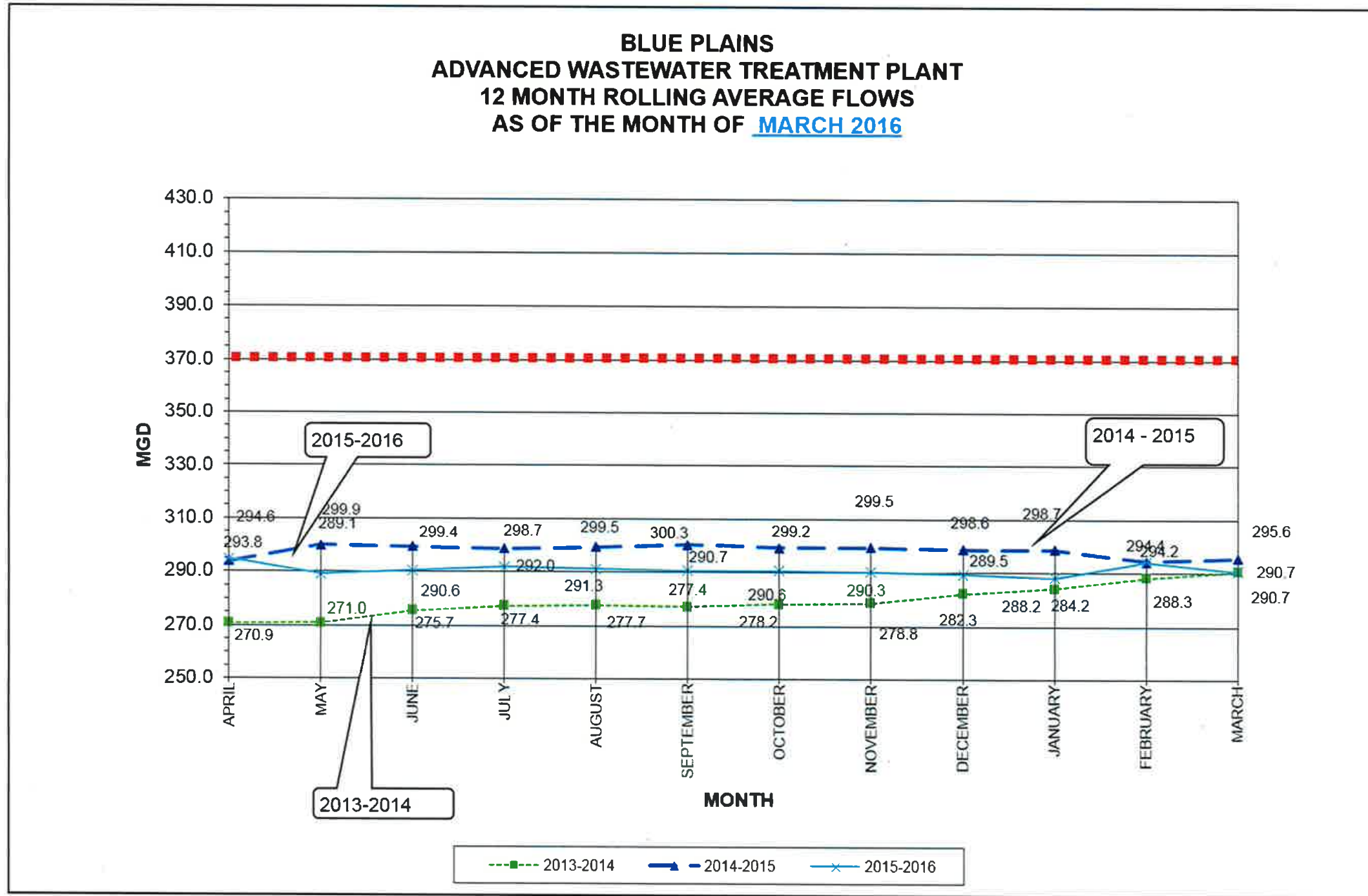


BLUE PLAINS ELECTRICITY GENERATION AND USAGE

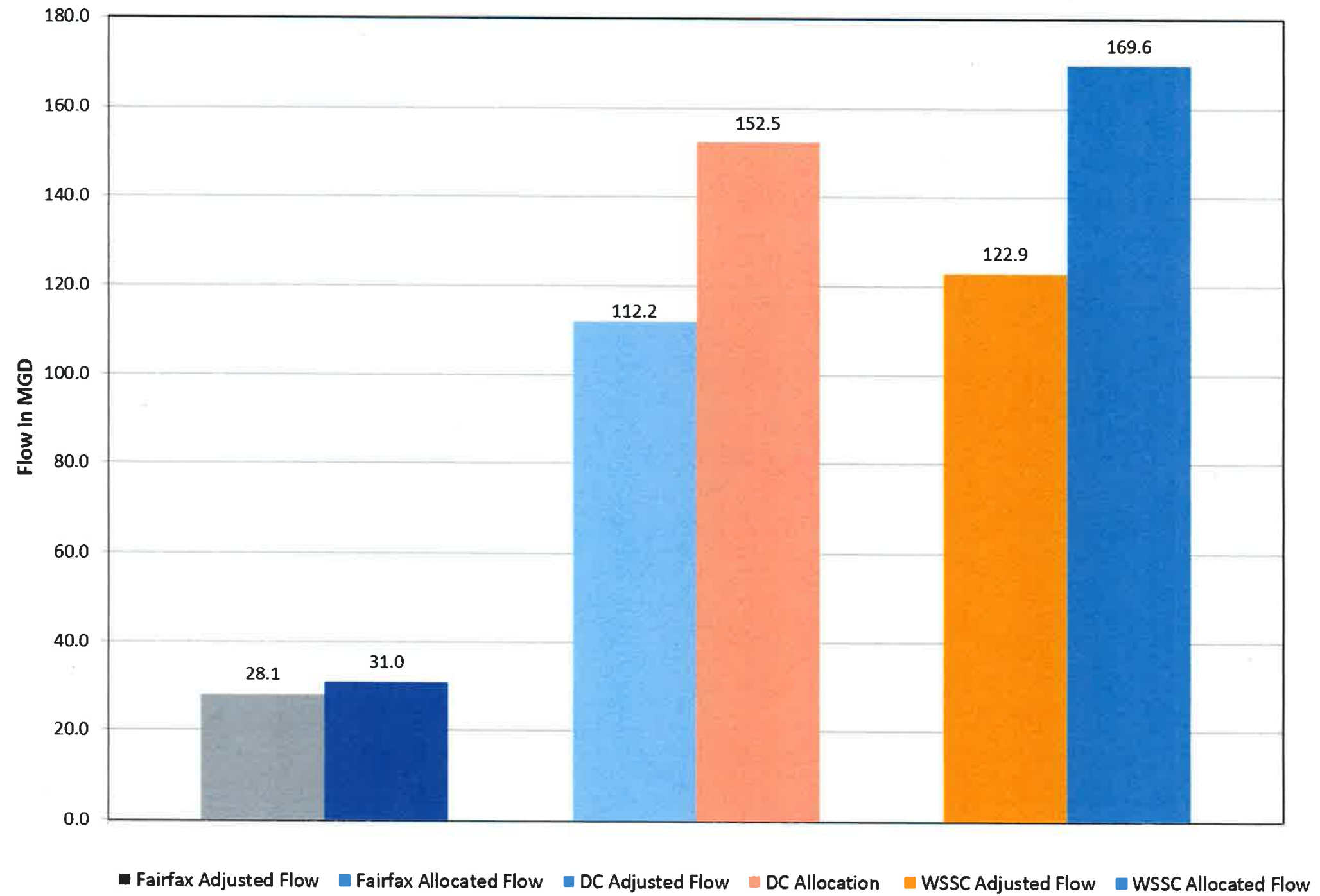
The average energy consumed at Blue Plains was 605 MWH/day for the month of April, while the average energy purchased from PEPCO was 434 MWH/day. The CHP facility exported an average of 171 MWH/day, making up for 28% of total energy consumed at Blue Plains.



The graph above is based on power monitors installed at the Main Substation and CHP, and reflects total average energy consumed at Blue Plains in MWH/day. Of the total average use, the energy purchased from PEPCO and net energy supplied (exported) by CHP are indicated by the blue and orange highlights, respectively.



Adjusted Flows vs Allocated Flows - MARCH 2016





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

Briefing on:

*DC Clean Rivers Project
Quarterly Update*

Briefing for:

Environmental Quality & Sewerage Services Committee



May 19, 2016

DCWATER.COM

Agenda

- Overview of Anacostia Projects
- Major Accomplishments
- DC Clean Rivers Schedule
- DC Clean Rivers Spending



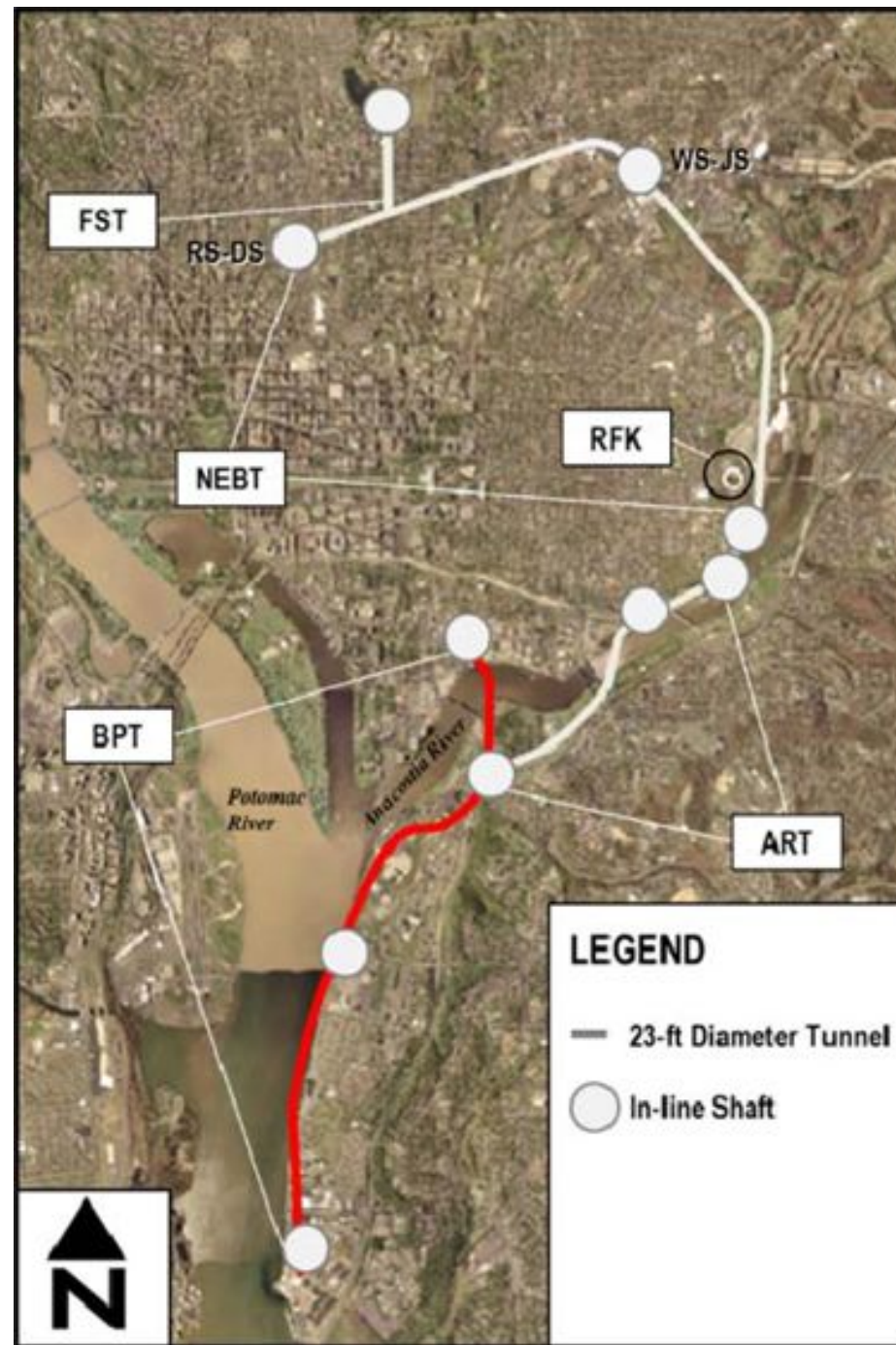
Overview of Anacostia Projects



MAJOR ACCOMPLISHMENTS FY 2016 QUARTER 1 UPDATE



Blue Plains Tunnel – Successfully Managed and Completed!



What is it?

- Key component of Clean Rivers Project
- Key component of TN/Wet Weather Plan
- First major tunnel in program

Capacities

- 23' inside dia, 24,207 feet long
- 5 shafts – 50' to 132' Inside diameter
- 75 million gallons storage

Design-builder

- Traylor-Skanska-JayDee
- \$330 million
- Award: May 2011
- Substantial completion: Dec 2015

Blue Plains Tunnel – Successfully Managed and Completed!



TBM Production

- Best day: 150 feet
- Best Week: 631 feet
- Average: 57 ft/day

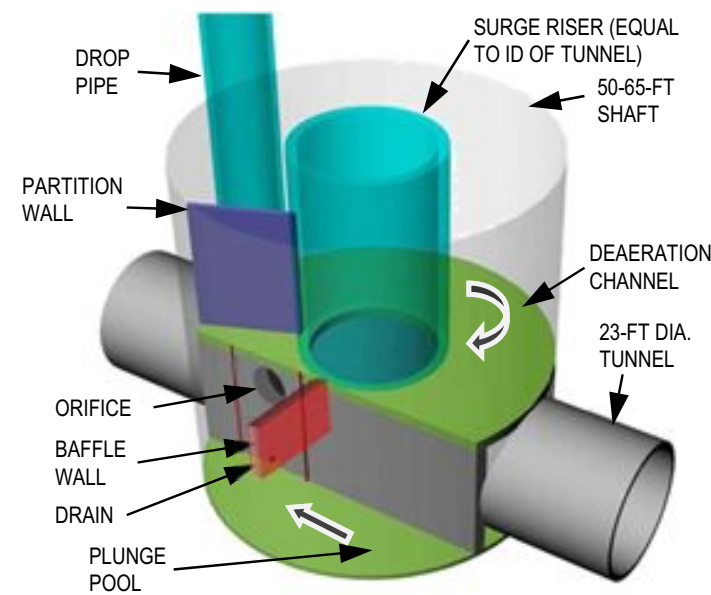
MBE/WBE

- Design MBE/WBE = 46%/5% (goal= 28%/4%)
- Construction MBE/WBE = 38%/3% (goal= 32%/6%)
- Total payments to MBE/WBE more than \$110 M

Local Resident Hiring

- 591 cumulative employees on project
- 239 from DC and user jurisdictions
- 40 new hires sourced from Dept. of Employment Services (DOES)

Blue Plains Tunnel – Innovations

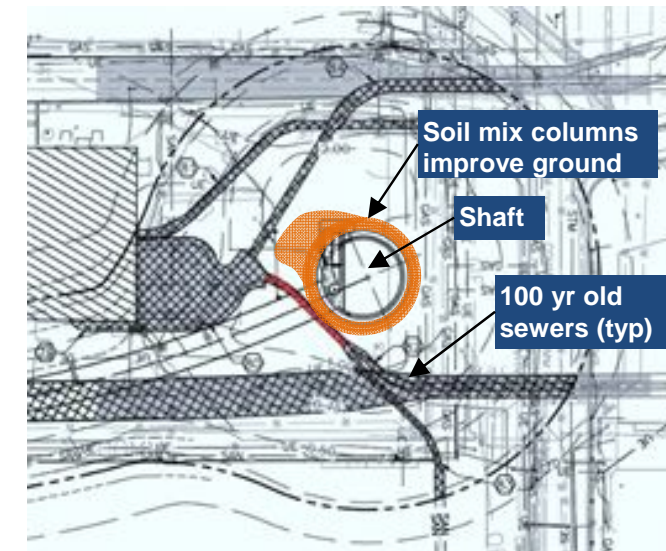


Circular Deaeration Shaft

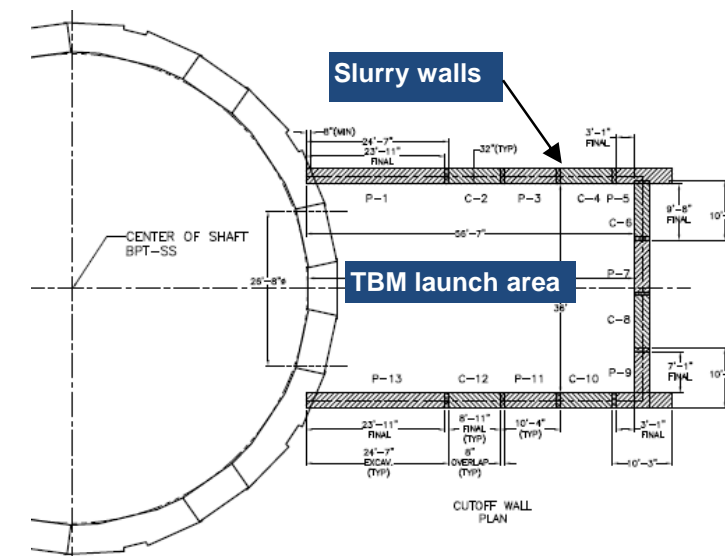


“Binocular” Shaft

- First design-build project for DC Water
- 100 yr design life → 100 yr Green Century bond
- Proprietary collaboration procurement process
- Protected 100 year old sewers from shaft excavation with unintrusive soil mix columns
- Slurry wall containment wall replaces jet grouting for watertight TBM launch
- Circular deaeration at intermediate shafts eliminated separate drop shafts and deaeration tunnels
- Binocular shaft at Blue Plains eliminated connecting tunnel between shafts



Soil Mix Columns Protect 100-yr Old Active Sewers



Slurry Wall Replaces Jet Grout for TBM Launch

Blue Plains Tunnel – Financials

Completed at Less than Contract Costs

Original Contract Amount	Final Contract Cost	Savings
\$ 330,561,000	\$ 318,735,119	\$ 11,825,881

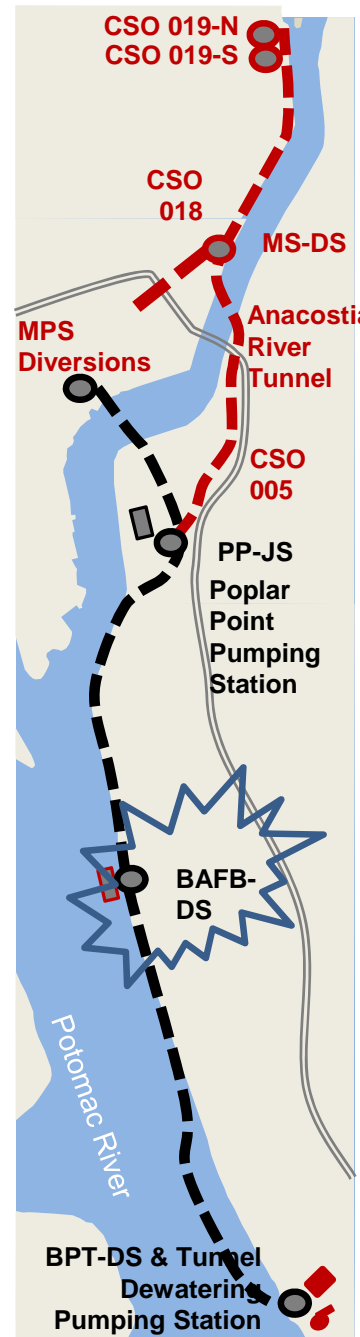
Costs saved through comprehensive and shared risk management



Div D – JBAB Overflow and Diversion Structures

As of April 1, 2016

Design-Builder: **Corman Construction**
 Contract Price: \$40M - Percent Complete: 27%



JBAB Diversion Structure is designed to capture flow from the Potomac Outfall Sewers (POS) to convey it to the Blue Plains via BPT. JBAB Overflow Structure will allow overflow to the Anacostia when BPT is at capacity.

- Completed installation of bulkheads over the POS to allow for maintenance of flow
- Completed the bypass structure for Potomac Outfall Sewer (POS)
- Continued installation of SOE for the Overflow Structure

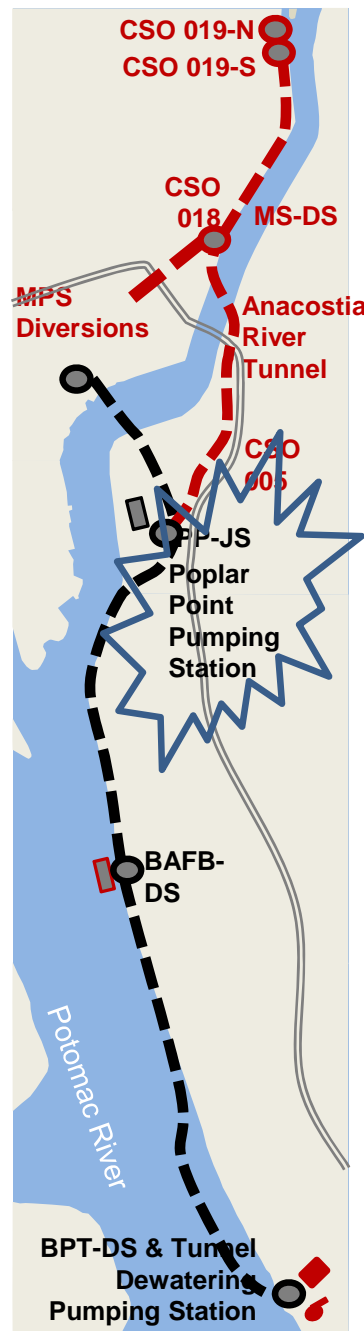


Div Z - Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion

As of April 1, 2016
Contractor: EE Cruz Contract Price: \$53.4M - Percent Complete 23%

The Poplar Point Pumping Station serves the sewer system on the east side of the Anacostia. It lifts sewage from the Anacostia Main Interceptor (AMI) up into the outfall sewers for conveyance to Blue Plains.

- Completed final level of excavation and bracing at the Pumping Station
- Completed microtunneling at Barry Road (42" diameter – 375 ft)
- Completed installing forms, rebar and pouring concrete for walls at the Emergency Overflow Chamber (EOC)



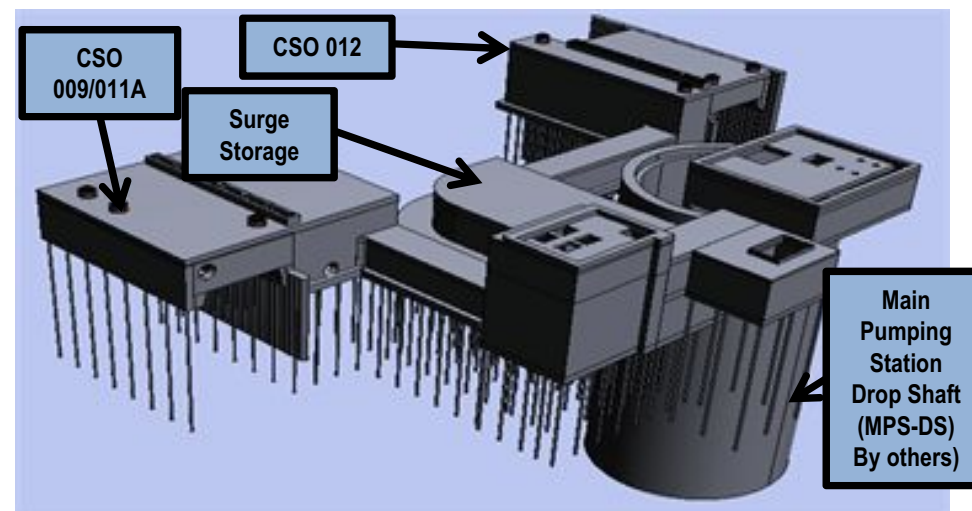
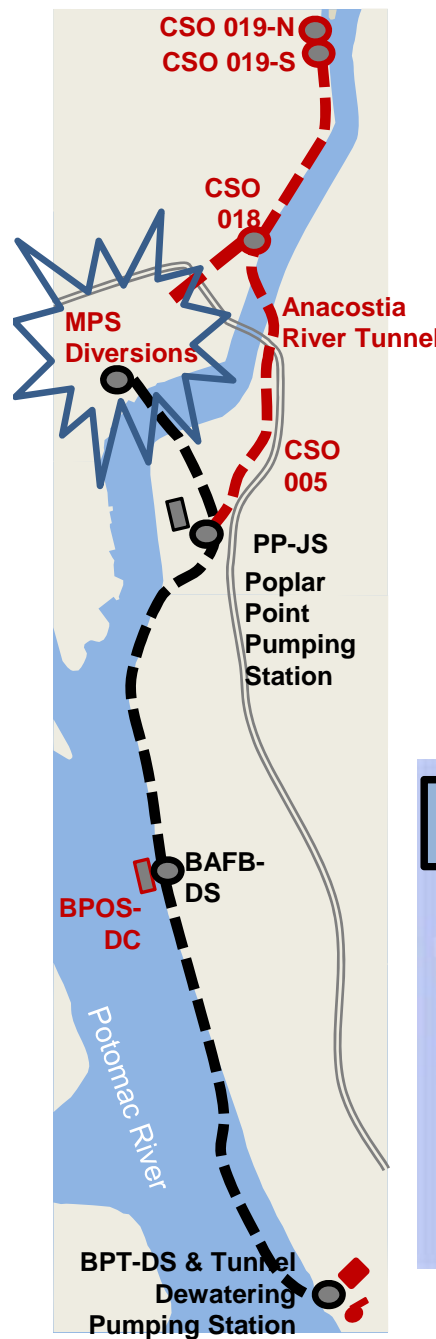
Div I – Main Pumping Station (MPS) Diversions

As of April 1, 2016

Design-Builder: **Corman Construction**
 Contract Price: \$53M - Percent Complete: 40%

MPS Diversions intercept flows from Tiber Creek Sewer, Canal Street Sewer and New Jersey Ave Trunk Sewer and redirects them to BPT during wet weather.

- Completed secant pile installation (152 secant piles installed)
- Working on internal shaft concrete structures
- Started Auger Cast pile installation



Div H – Anacostia River Tunnel Progress at a Glance

Financials as of April 1, 2016

Design-BUILDER: **Impregilo Healy Parsons Joint Venture (IHPJV)**
Contract Price: \$253.9M Percent Complete: 56%



CSO 019-CSA Shafts & ISCT

- Completed CSO-019 CIP Liner (100%)
 - Installed TBM support facilities
 - Installing sheet piles for NEBTS bypass
- \$ 17.04M completed to-date**
\$ 1.84M remaining



CSO 018-CSA Shaft and Structure

- Completed shaft CIP
 - Begin NSS SOE Installation
- \$ 3.68M completed to-date**
\$ 11.58M remaining



M Street CSA Shaft & NSS

- Completed shaft CIP liner
 - Installing shaft hydraulic structures
 - Installing NSS SOE
- \$ 6.37M completed to-date**
\$ 4.43M remain



CSO 007-CSA Shaft and Structure

- Installing tie backs for NSS
 - Excavated/CIP lined shaft (46% complete)
 - Activated deep dewatering
- \$ 1.52M completed to-date**
\$ 3.13M remaining



CSO 005-CSA Shaft and Structure

- Complete shaft excavation
 - Place concrete base slab
- \$ 2.28M completed to-date**
\$ 4.62M remaining



Tunnel Boring Machine & Precast Segments

- Completed TBM commissioning & launch
 - Advanced 2,739 ft (22%)
 - Segment Production Complete (2050 Rings)
- \$ 25.00M TBM payment to-date**
\$ 0.00M TBM payment remaining
\$ 8.58M TBM tunneling to-date
\$ 21.76M TBM tunneling remaining
\$ 17.07M Segment Fab/Del. payment to-date
\$ 1.33M Segments remaining



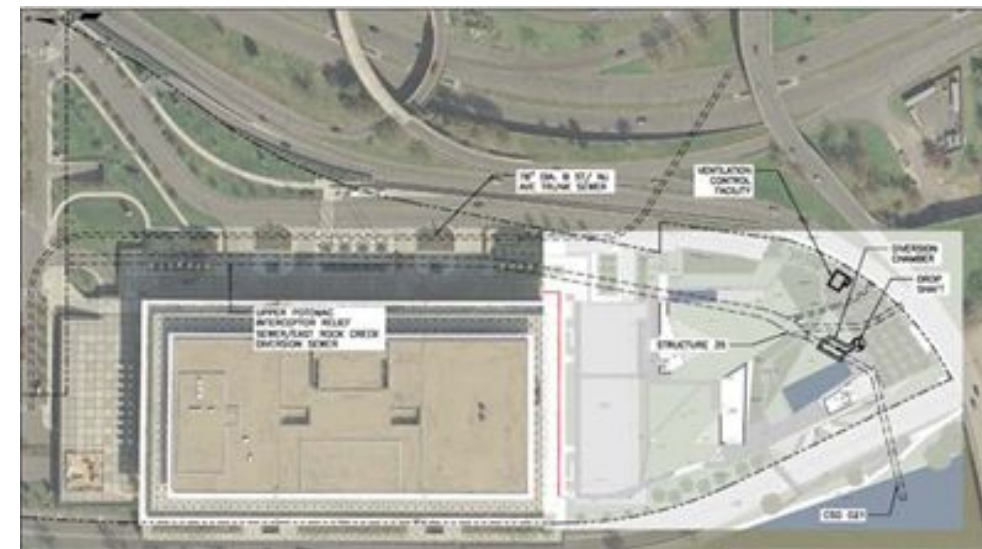
Div PR-B – Kennedy Center CSO 021 Diversion Facilities

As of April 1, 2016

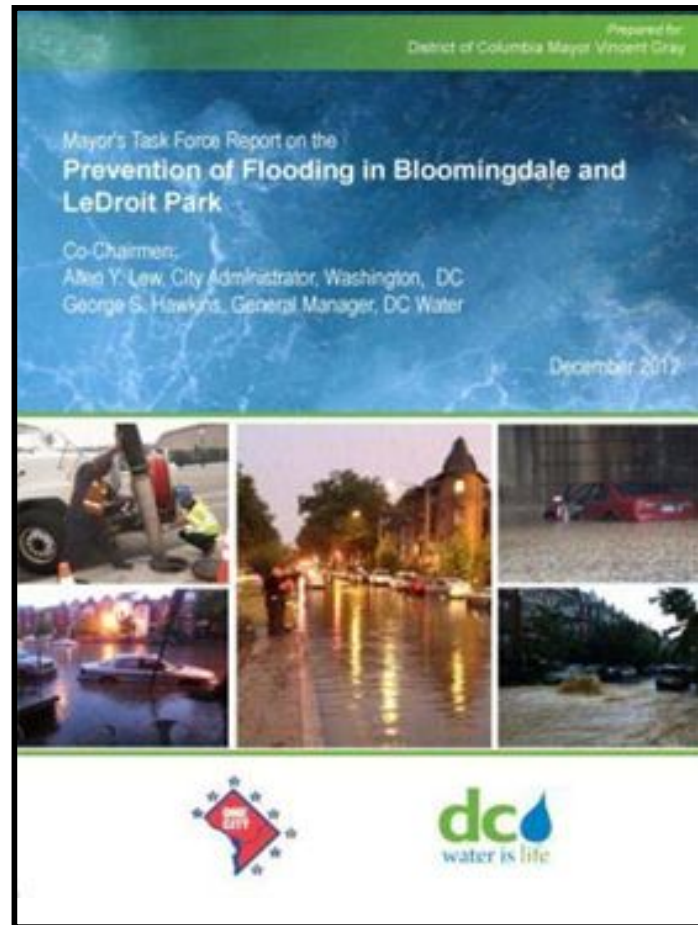
Design-Builder: **Davis Construction**
Contract Price: \$33.95M - Percent Complete: 4%

CSO 021 Diversion Facilities intercept flows from the CSO 021 outfall and redirects them to future Potomac River Tunnel during wet weather.

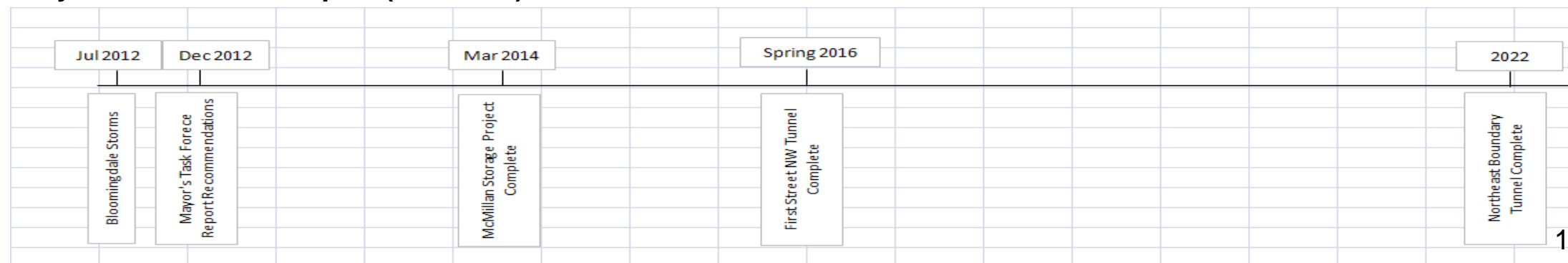
- Issued NTP to Davis Const. on March 31, 2016
- Received approval from DOEE for instrumentation permit. Rock grouting, secant pile permits under review.
- Performing preconstruction surveys of existing infrastructure.



Mayor's Task Force Report on the Prevention of Flooding in Bloomingdale and LeDroit Park



Mayor's Task Force Report (Dec 2012)





Division P – First Street Tunnel Progress at-a-Glance


Financials as of March 31th, 2016

Design-Builder: **Skanska Jay Dee JV**
Contract Price: \$157.6M Percent Complete: 82.34%

AS – MTBM & Pipe Jacking

- Completed mining and installing pipe.


\$0.4M completed to-date
\$0 M remaining



AS – Diversion Channel

- Continued installing MH covers.
- Continued installing upper wall cover forms.


\$4.0M completed to-date
\$0.3M remaining



PS – Valve Vault

- Continued installing Force Main piping system.


\$0.34M completed to-date
\$0.02M remaining



PS – Adit Tunnel / FST connection

- Finished shotcrete operation at intersection


\$0.06M completed to-date
\$0.06M remaining




CS-MS Internal Structure & AC Connection.

- Started building working platforms for Inflow Chamber & Vent Facility.

\$0.1M completed to-date
\$1.5M remaining



CS Approach Channel & VCV

- Finished installing soldier piles.


\$1.5M completed to-date
\$0 remaining



V Street – NCS-DC & FS-DC

- Continued installing rebar, concrete forms & pouring concrete for walls & slabs.


\$0.07M completed to-date
\$0.05 remaining



V Street – Adit Tunnel / FST connection

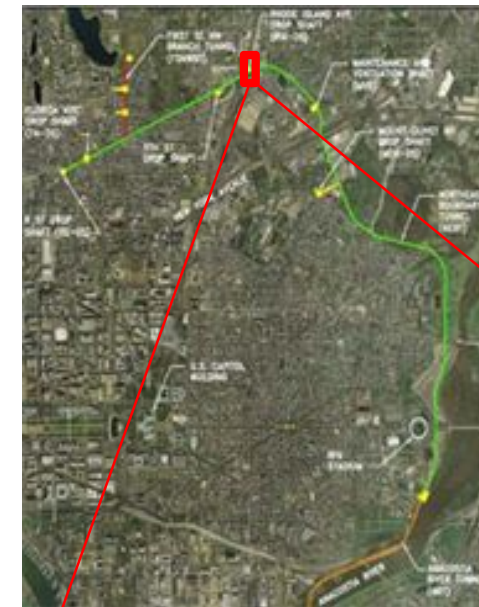
- Finished saw-cutting tunnel segments at intersection.
- Formed & poured concrete invert slab.

\$0.07M completed to-date
\$0.05M remaining



Div U: Northeast Boundary Tunnel (NEBT) Utility Relocations

- Purpose: Clear surface work sites to make way for Tunnel Contractor
- Awarded Construction Contract to Fort Myer Corporation
- Continued to hold meetings with various DC Water Departments, Washington Gas, Pepco, Verizon and Comcast to discuss utility relocations
- Construction is planned to start in May 2016 and continue for 18 months



Zone to be cleared of utilities



Example: 4th & Rhode Island Ave NE

Division J – Northeast Boundary Tunnel Project Map



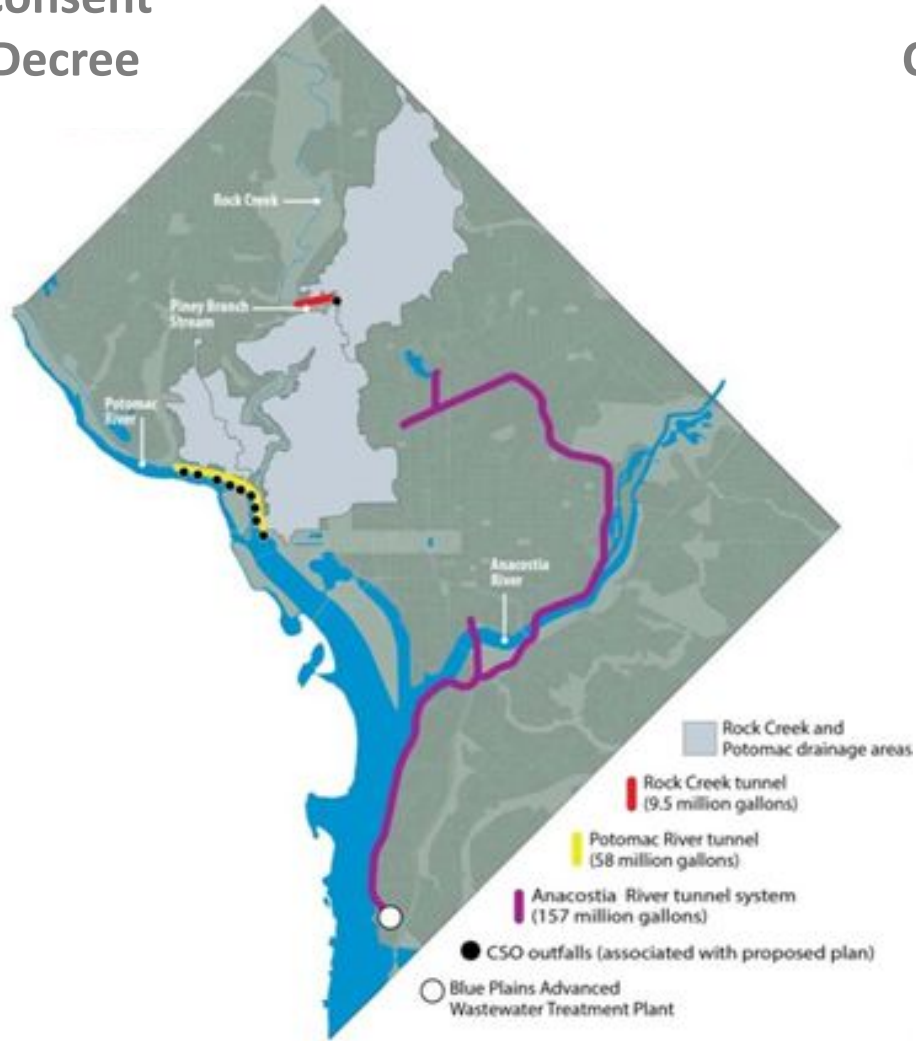
Division J – Northeast Boundary Tunnel Project Details

- 23 foot diameter tunnel
- 60 to 140 feet deep
- 27,000 feet long
- 7 shafts and 5 diversion chambers
- Estimated construction value: \$500 – \$600 million

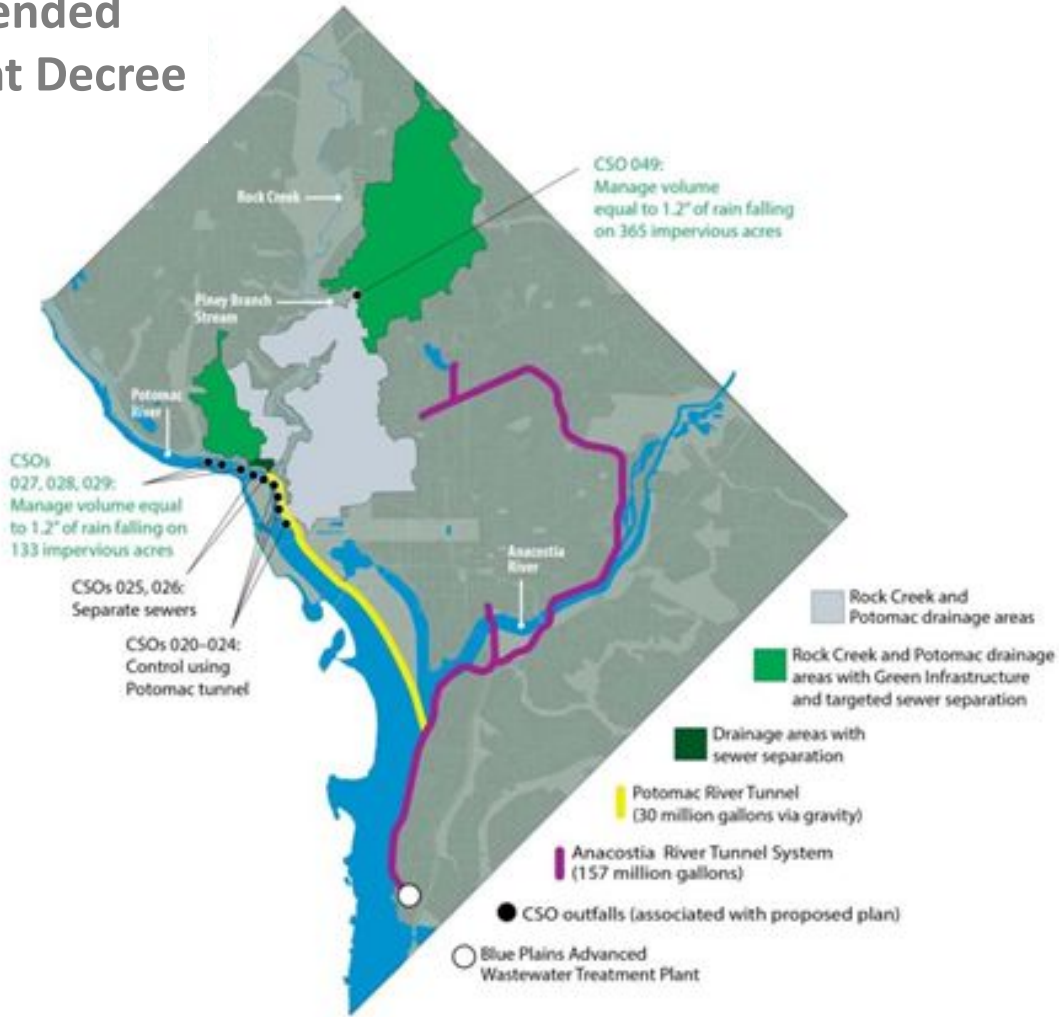
Milestone	Date
Issue RFP Documents	June 1, 2016
Collaboration	June 2016 – February 2017
Award	July 6, 2017
NTP	September 18, 2017
Construction Complete	May 31, 2023

Amended Consent Decree

Consent Decree



Amended Consent Decree



Division RC-A: Boundary, Schedule, Updates

- Project Boundary:



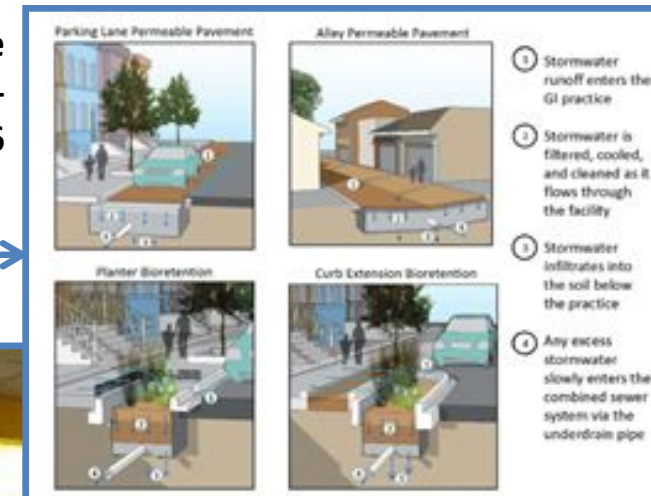
- Schedule:

- RFP Development (90% Complete):**
2015 – mid 2016
- Procurement:**
mid 2016 – early 2017
- Design-Build:**
early 2017 – 2019
- Monitoring:**
2019 – 2020

- Updates:

- SOQs submitted: April 14, 2016
- Outreach continues with ANC's, residents, and Agencies

Excerpt from online stakeholder survey - April, 2016



Kennedy Street Development Association Meeting – January, 2016

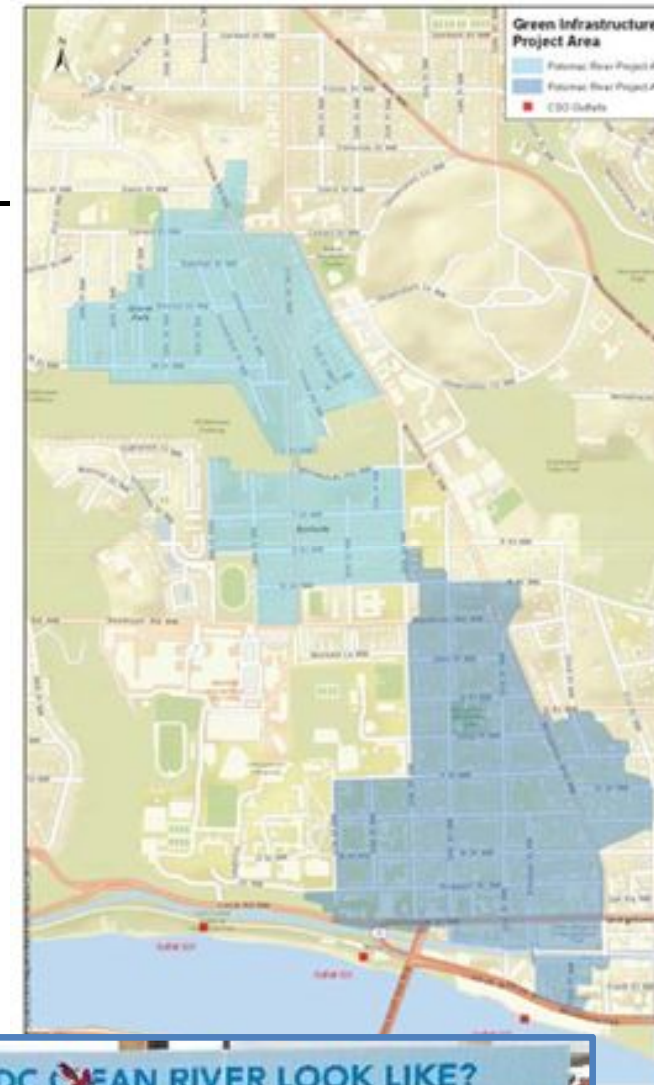


- Project Boundary:

Divisions PR-A1 and PR-A2: Boundary, Schedule, Updates

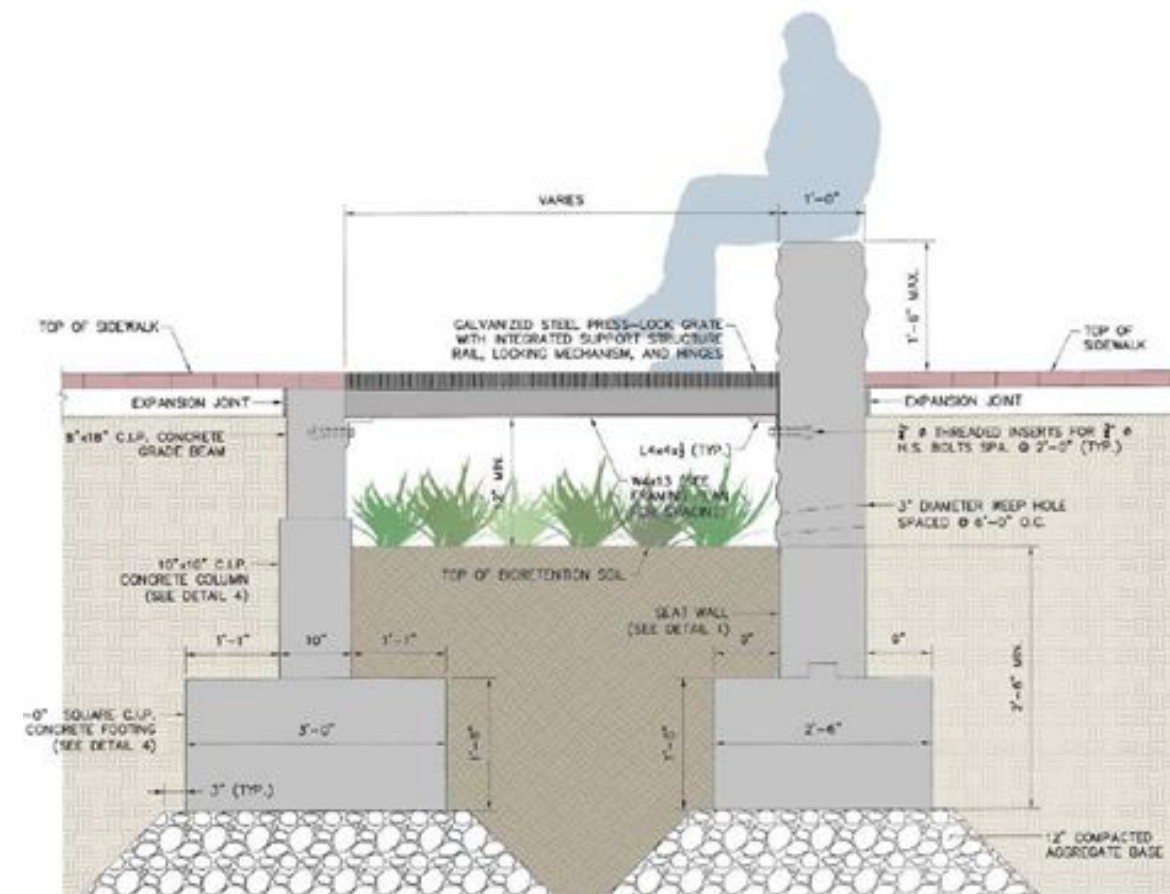
- Schedule:
 - **RFP Development (currently underway):**
2015 - late 2016
 - **Procurement:**
late 2016 – mid 2017
 - **Design-Build:**
mid 2017 – 2019
 - **Monitoring:**
2019 – 2020
- Updates:
 - SOQs submitted: April 14, 2016
 - Outreach continues with ANC's, residents, and Agencies

'French Market' hosted
by Georgetown BID -
April 30, 2016



GI Challenge Projects

- **Kansas Avenue Green Infrastructure Parks Project**
 - 90% design complete for two triangle parks
- **Kennedy Street Green Infrastructure Streetscape Project**
 - 100% design complete for streetscape
 - To be constructed with DDOT's Kennedy Street Improvements Project



Example Bioretention with Seat Wall for Kennedy Street Green Infrastructure Streetscape Project



Green Jobs MOA: GI Certification Program

- **Schedule Drivers:**
 - Late 2016: First Technical Training
 - Early 2017: First Certification Exam
- **Status:**
 - Partner jurisdictions formalized to date:
 - Milwaukee Metropolitan Sewerage District (MMSD)
 - Montgomery County, Maryland
 - Kansas City, Missouri, Water Services Department
 - Fairfax County, Virginia
 - City of Baltimore Department of Public Works
 - Louisville Metropolitan Sewer District
 - San Francisco Public Utilities Commission
 - Body of Knowledge finalized
 - Job analysis survey underway
 - Website underway



Pilot Green Roof Maintenance Training Program

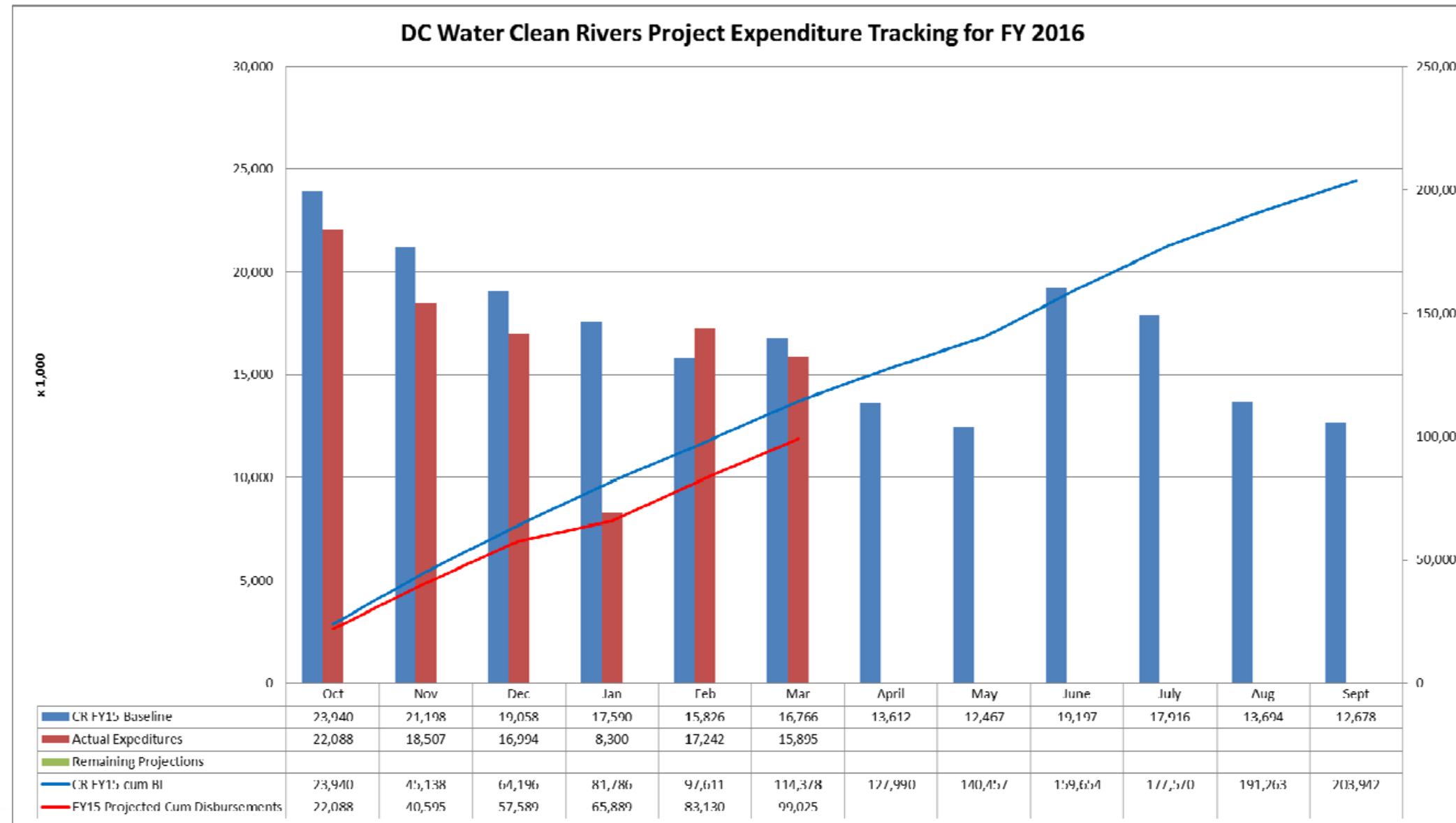
DC Clean Rivers Schedule

DIV	DC Clean Rivers Jobs	CY 2010				CY 2011				CY 2012				CY 2013				CY 2014				CY 2015				CY 2016				CY 2017				CY 2018			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		Time now																																			
W	Blue Plain Tunnel Site Prep	[Completed]																																			
A	Blue Plain Tunnel (D/B)	[Completed]																																			
C	CSO 019 Overflow and Diversions	[Completed]																																			
B	Tingey Street Diversions (D/B)	[Completed]																																			
D	JBAB Overflow and Potomac Outfall Sewer Div. (D/B)	[Completed]																																			
E	M Street Diversion Sewer (CSOs 015, 016 and 017)	[Completed]																																			
G	CSO 007	[Completed]																																			
H	Anacostia River Tunnel (D/B)	[Completed]																																			
N	Low Impact Development	[Completed]																																			
P	First Street NW Tunnel (D/B)	[Completed]																																			
U	Advance Utility Relocation NEBT	[Completed]																																			
J	Northeast Boundary Tunnel (D/B)	[Completed] Thru May 2023																																			
I	Main PS Diversions (D/B)	[Completed]																																			
S	Irving Street Green Infrastructure (GI)	[Completed]																																			
Y	Tunnel Dewatering Pumping Station and ECF (D/B)	[Completed]																																			
Z	Poplar Point PS Replacement and MOS Diversion	[Completed]																																			
PR-A	Potomac GI Project 1	[Completed] Thru June 2019																																			
RC-A	Rock Creek GI Project 1	[Completed] Thru March 2019																																			

■ A/E Procurement
 ■ Design
 ■ Contractor Procurement
 ■ Permitting / Engineering
 ■ Construction
 ■ Completed
 ■

DIV	DC Clean Rivers Jobs	CY 2017				CY 2018				CY 2019				CY 2020				CY 2021				CY 2022				CY 2023				CY 2024				CY 2025			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
PR-B	Potomac GI Project 2	[Completed]																																			
PR-C	Potomac GI Project 3	[Completed] 6/2027																																			
RC-B	Rock Creek GI Project 2	[Completed]																																			
RC-C	Rock Creek GI Project 3	[Completed] 3/2027																																			
RC-D	Rock Creek GI Project 4	[Completed]																																			
RC-E	Rock Creek GI Project 5	[Completed]																																			

FY2016 Spending Status



- DCCR expects to end the fiscal year spending on target. Current shortfall in spending is due to lagging invoices.

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

ACTION REQUESTED

**GOODS AND SERVICES CONTRACT MODIFICATION
Short Term Flow and Rainfall Monitoring Services
(Joint Use)**

Approval to execute contract modification for additional meters and data collection in the amount of \$1,900,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: RJN Group 1589 Sulphur Spring Road Baltimore, MD 21227	Subs: ADS Environmental Services	PARTICIPATION: 48.5%
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$3,143,511.00
Original Contract Dates:	04-13-2015—7-12-2016
No. of Option Years in Contract:	0
Modification Value:	\$233,774.00
Modification Dates:	10-06-2015—07-12-2016
This Modification Value:	\$1,900,000.00
This Modification Dates:	07-13-2016—07-30-2017

Purpose of the Contract:

To furnish, install, calibrate, operate, maintain, collect and report data from flow monitors and rain gauges in various portions of DC Water’s Wastewater Collection System. The data collected from this contract will be used to calibrate a system-wide hydraulic model, perform infiltration and inflow analyses, determine baseline level of service/level of control and assess the impact of new development and other changes to the collection system. These evaluations will assist the Capital Improvement Program (CIP) planning, wet-weather management planning, system design and implementation of improvements.

Original Contract Scope:

To furnish, install, calibrate, operate, maintain, collect and report data from flow monitors and rain gauges in various portions of DC Water’s Wastewater Collection System.

Reason for the Change:

Due to insufficient wet weather events during the original contract period, the data collected were not sufficient to determine the baseline level of service for the Capital Improvement Program. DC Water requests to extend the period of performance of the contract and to purchase twenty five (25) additional meters so that more data can be collected and analyzed.

Spending Previous Year:

Cumulative Contract Value:	04-13-2015 to 07-12-2016: \$3,377,285.00
Cumulative Contract Spending:	04-13-2015 to 04-29-2016: \$2,621,487.72

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:	Firm Fixed	Award Based On:	Best Value
Commodity:	Goods and Services	Contract Number:	15-PR-DETS-03
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

Funding:	Capital	Department:	Engineering & Technical Services
Service Area:	DC Water Wide	Department Head:	Liliana Maldonado
Project:	GZ and LZ		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	84.65%	\$1,608,291.59
Washington Suburban Sanitary Commission	8.90%	\$169,070.77
Fairfax County	4.70%	\$89,379.00
Loudoun County	1.40%	\$26,686.69
Other (PI)	0.35%	\$6,571.95
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$1,900,000.00

 5/12/16
 Gail Alexander-Reeves Date
 Director of Budget

 5/6/19
 Dan Bae Date
 Director of Procurement

 5/4/16
 Leonard R. Benson Date
 Chief Engineer

_____/_____
 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 OPTION

**HVAC and Plumbing Services
(Joint Use)**

Approval to exercise option year four (4) for HVAC and Plumbing Service contract in the amount of \$304,500.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Complete Building Services 2101 Wisconsin Avenue, NW Washington, DC 20007 LSBE	SUBS: N/A	PARTICIPATION: N/A
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$178,225.00
Original Contract Dates:	05-01-2012—04-30-2013
No. of Option Years in Contract:	4
Option Year 1 Value:	\$185,354.00
Option Year 1 Dates:	05-01-2013—04-30-2014
Option Year 2 Value:	\$249,797.40
Option Year 2 Dates:	05-01-2014 – 04-30-2015
Option Year 3 Value:	\$200,478.89
Option Year 3 Dates:	05-01-2015 – 04-30-2016
Modification Value:	\$0.00
Modification Dates:	05-01-2016—05-15-2016
Option Year 4 Value:	\$304,500.00
Option Year 4 Dates:	05-16-2016—04-30-2017

Purpose of the Contract:

DC Water has a continuous need for a licensed contractor to perform preventative maintenance, repair, corrective maintenance, and installation of all heating, ventilation, air conditioning and plumbing equipment at all DC Water facilities.

Contract Scope:

The contract provides for preventative maintenance, repair and replacement of all HVAC to include the boilers, hot water heaters, unit heaters, duct heaters, chillers, rooftop units, central station air handlers, supply/exhaust fans, variable frequency drives, split system air conditioners, heat pumps, plumbing pipes and equipment used for space heating and cooling purposes.

Spending Previous Year:

Cumulative Contract Value:	05-01-2012 to 05-16-2016: \$813,855.29
Cumulative Contract Spending:	05-01-2012 to 04-27-2016: \$738,160.76

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 and requirements.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	Award Based On:	Best Value
Commodity:	Services	Contract Number:	WAS-12-017-AA-RA
Contractor Market:	Open Market with Preference Points for LBE and LSBE		

BUDGET INFORMATION

Funding:	Operating	Department:	Facilities
Project Area:	DC Water Wide	Department Head:	Johnnie Walker

ESTIMATED USER SHARE INFORMATION

User - Operating	Share %	Dollar Amount
District of Columbia	41.67%	\$62,505.00
Washington Suburban Sanitary Commission	43.21%	\$64,815.00
Fairfax County	10.45%	\$15,675.00
Loudoun Water	4.02%	\$6,030.00
Other (PI)	0.65%	\$975.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$150,000.00

BUDGET INFORMATION

Funding:	Capital	Department:	Facilities
Project Area:	DC Water Wide	Department Head:	Johnnie Walker

User - Capital	Share %	Dollar Amount
District of Columbia	41.22%	\$63,684.90
Washington Suburban Sanitary Commission	45.84%	\$70,822.80
Fairfax County	8.38%	\$12,947.10
Loudoun Water	3.73%	\$5,762.85
Other (PI)	0.83%	\$1,282.35
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$154,500.00


 Gail Alexander-Reeves
 Director of Budget

Date


 Dan Bae
 Director of Procurement

Date


 for Rosalind R. Inge
 Assistant General Manager,
 Support Services

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

**Biosolids Management
(Joint Use)**

Approval to exercise option year four (4) for Biosolids Management contract in the amount of \$3,523,222.92.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Nutri-Blend, Inc. P.O Box 38060 Richmond, VA 23231	SUBS: N/A	PARTICIPATION: N/A
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$11,457,422.50
Original Contract Dates:	05-01-2012 – 04-30-2013
No. of Option Years in Contract:	4
Option Year 1 Value:	\$11,457,422.00
Option Year 1 Dates:	05-01-2013 – 4-30-2014
Option Year 2 Value:	\$7,662,750.00
Option Year 2 Dates:	05-01-2014 – 04-30-2015
Option Year 3 Value:	\$5,800,000.00
Option Year 3 Dates:	05-01-2015 – 04-30-2016
Modification Value:	\$282,720.00
Modification Dates:	05-01-2016 – 05-31-2016
Option Year 4 Value:	\$3,523,222.92
Option Year 4 Dates:	06-01-2016 – 04-30-2017

Purpose of the Contract:

To purchase biosolids management services, from pick-up from DC Water, to distribution to end-users, and filing required reports.

Contract Scope:

Remove biosolids from the Dewatered Biosolids Loading Facility; carry to designated agricultural applications such as farms, compost facilities, and reclamation sites in the mid-Atlantic region; manage nutrient loading; permit land; and file required reports.

Savings:

Pricing for this NutriBlend contract has a hauling component with volume tiers, and a fuel component tied to a U.S. Government (USG) diesel index. For this option year 4, Procurement negotiated a lower hauling rate (before fuel surcharge) from the original contracted rate of \$37.59 per wet ton to \$33.62 per wet ton, creating additional saving of \$352,856.70.

Spending Previous Year:

Cumulative Contract Value:	05-01-2012 to 04-30-2016: \$36,660,314.50
Cumulative Contract Spending:	05-01-2012 to 04-29-2016: \$30,158,496.83

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	Award Based On:	Highest-Ranking Score
Commodity:	Services	Contract Number:	WAS-12-007-AA-SH
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:	Salii Kharkar

ESTIMATED USER SHARE INFORMATION

User - Operating	Share %	Dollar Amount
District of Columbia	41.67%	\$1,468,126.99
Washington Suburban Sanitary Commission	43.21%	\$1,522,384.62
Fairfax County	10.45%	\$368,176.80
Loudoun Water	4.02%	\$141,633.56
Other (PI)	0.65%	\$22,900.95
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$3,523,222.92

 5/11/16
 Gail Alexander-Reeves Date
 Director of Budget

 5/6/2016
 Dan Bae Date
 Director of Procurement

 5/9/2016
 Aklile Tesfaye Date
 Assistant General Manager,
 Blue Plains

 George S. Hawkins Date
 General Manager

District of Columbia Water and Sewer Authority

Capital Improvement Program Report



**FY-2016 2nd Quarter
January 1st through March 31st, 2016**

**Board of Directors
Environmental Quality and Sewerage Services Committee**

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

May 2016

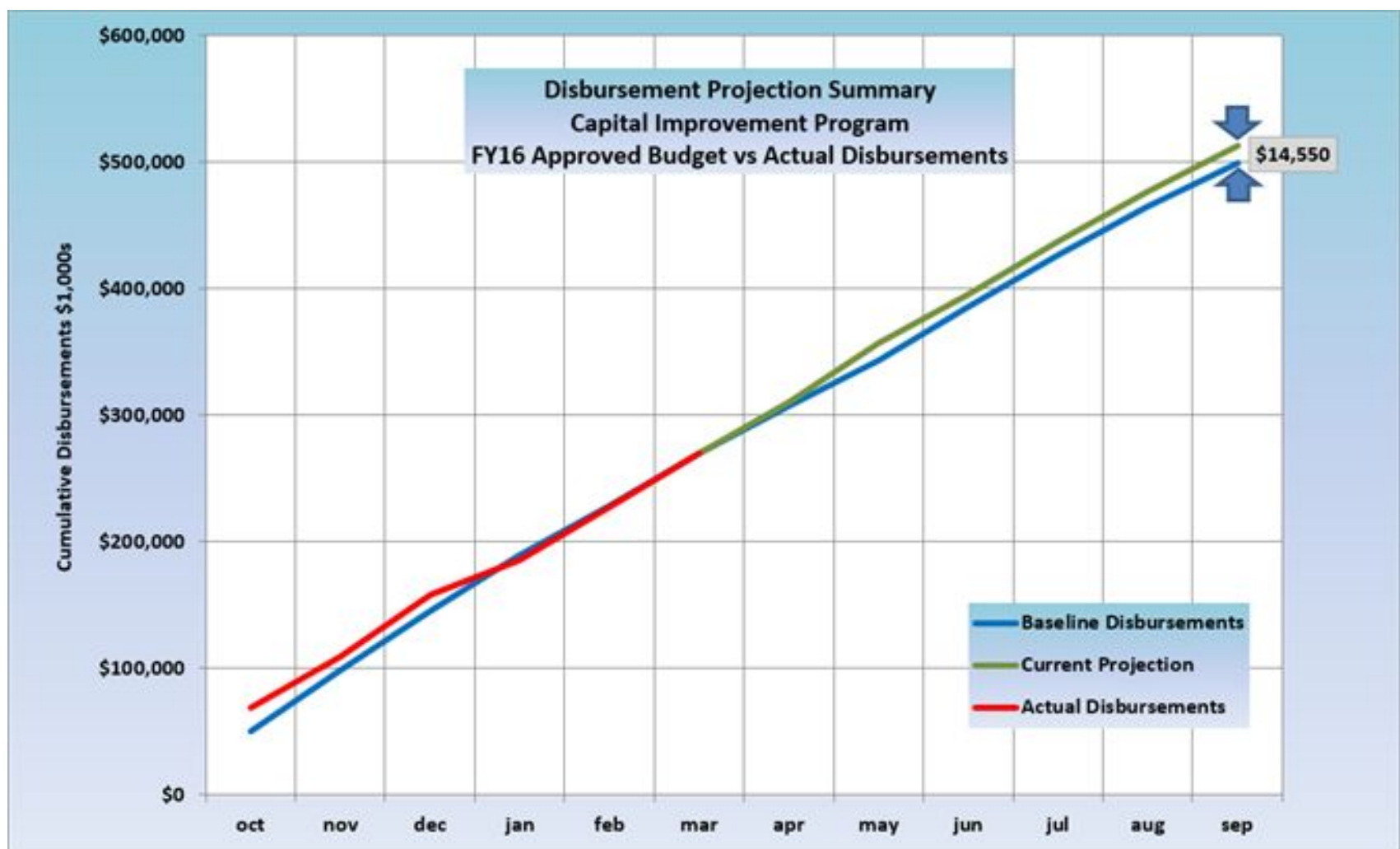


Capital Improvement Program Report 2nd Quarter FY2016

CIP Disbursement Performance

Current projected program disbursements through the end of the fiscal year compared with the approved FY16 baseline are shown in the chart below:

Disbursement Summary



Current projected fiscal year 2016 CIP disbursements are \$513,527,000 through the end of March, which is 2.9% above the baseline disbursement projection of \$498,977,000.

Achieved disbursements within the service areas are as follows:

Non Process Facilities

Baseline Disbursements \$9,330,000
 Projected Disbursements \$4,776,000 (\$4.6M below baseline projection)
 Significant project variances are listed below:



Capital Improvement Program Report 2nd Quarter FY2016

- *Non Process Facilities Program Area – (\$4.6M below baseline)*
 - The projected disbursements for Project HH – New Fleet Management Facility are \$4.9 million below baseline mainly due to ongoing coordination of the agreement between DC Water and the District of Columbia Government that has rescheduled the start of design and construction.

Wastewater Treatment Service Area

Baseline Disbursements \$168,638,000
 Projected Disbursements \$169,511,000 (\$0.87M above baseline projection)

There are no significant project variances for this service area.

CSO Service Area

Baseline Disbursements \$223,037,000
 Projected Disbursements \$224,097,000 (\$1M above baseline projection)

There are no significant project variances for this service area.

Stormwater Service Area

Baseline Disbursements \$1,264,000
 Projected Disbursements \$1,911,000 (\$0.6M above baseline projection)

There are no significant project variances for this service area.

Sanitary Sewer Service Area

Baseline Disbursements \$34,803,000
 Projected Disbursements \$45,424,000 (\$10.6M above baseline projection)

Significant project variances are listed below:

- *Sanitary Collection Sewers – (\$3.5M above baseline)*
 - The projected disbursements for Project GA – Small Local Sewer Rehab 4 are \$3.9 million above baseline largely due to better than anticipated progress of the construction contract during this fiscal year after a slower than expected start to the contract.
- *Sewer On-Going Projects – (\$4.8M above baseline)*
 - The projected disbursements for Project DW – FY2016 – DSS Sanitary Sewer Projects are projected to be \$3.5M above baseline partly due to work paid for in early Fiscal Year 2016 related to the emergency response at the Capital Crescent Trail on the Upper Potomac Interceptor Sewer.

Water Service Area

Baseline Disbursements \$61,906,000
 Projected Disbursements \$67,808,000 (\$5.9M above baseline projection)

There are no significant project variances for this service area.



Capital Improvement Program Report 2nd Quarter FY2016

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

All priority 1 projects are on schedule and within budget.

Large Contract Actions Anticipated – 6 Month Look-Ahead

Project	Name	Contract Type	Cost Range	Committee	BOD
BV	Raw Wastewater Pumping Station No. 2	Construction	\$15M - \$20M	EQ&SS Jun	Jul
Various	Miscellaneous Facilities Upgrades 5	Construction	\$25M - \$35M	EQ&SS Jun	Jul
IL	Creekbed Sewer Rehabilitation – Oregon Avenue	Construction	\$10M - \$15M	EQ&SS Jun	Jul
Various	Program Management Consultant	Agreement	\$55M - \$65M	EQ&SS Jun	Jul
DY	Watermain Infrastructure Repair and Replacement	Construction	\$25M - \$35M	EQ&SS Jun	Jul
O3	Small Diameter Watermain Rehab 11b	Construction	\$5M - \$10M	WQ&WS Jul	Sep
O3	Small Diameter Watermain Rehab 11c	Construction	\$5M - \$10M	WQ&WS Jul	Sep
Various	Project Delivery Consultant	Agreement	\$15 - \$20M	EQ&SS Sept	Oct
DE	Small Diameter Watermain Rehab 12a	Construction	\$5M - \$10M	WQ&WS Sept	Oct
DE	Small Diameter Watermain Rehab 12b	Construction	\$5M - \$10M	WQ&WS Nov	Dec



Capital Improvement Program Report 2nd Quarter FY2016

Schedule - Key Performance Indicators, Capital Improvement Program

KPI Performance Through End Quarter 2

All KPIs



For the 2nd Quarter, one of the Key Performance Indicators (KPIs) was achieved early, one 1st quarter KPI was achieved late and four were achieved on time; one of the remaining planned KPIs was not achieved, as follows:

1. The construction substantial completion for Biosolids Combined Heat and Power due to issues connected with commissioning of the turbines.

KPI Performance Through End Quarter 2

Design Start



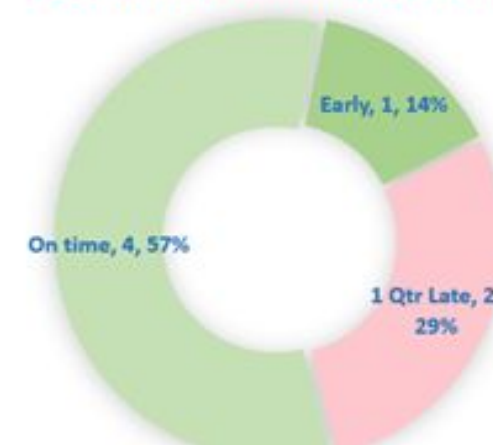
KPI Performance Through End Quarter 2

Construction Start



KPI Performance Through End Quarter 2

Construction Substantial Completion





Capital Improvement Program Report 2nd Quarter FY2016

FY2016 - 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	N712	Potomac Sewer - Odor Remedy (VA Sites)	CSC					1 Qtr Late
1	FA04	Ft. Stanton Reservoir No. 1 Upgrade	CSC					On time
1	O301	Small Dia Watermain Repl 11a	CS					On time
1	I802	Large Valve Replacements 12	CS					On time



Capital Improvement Program Report 2nd Quarter FY2016

FY2016 - 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	XA10	Biosolids Combined Heat and Power (CHP)	CSC					1 Qtr Late
2	O103	Small Dia Watermain Repl 9b	CSC					On time
2	Q302	Pope Branch Stream Restoration and Sewer Replacement	CS					Early
2	CY19	Div A - Blue Plains Tunnel MPS Section	CSC					On time
2	F101	Small Diameter Water Main Rehab 13A	DS					On time
2	FA06	Brentwood Reservoir Upgrade	CSC					On time



Capital Improvement Program Report 2nd Quarter FY2016

FY2016 - 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	S503	Large Dia. Water Main Internal Repairs 3	CSC					Early
3	AY01	Upgrades to Ft. Reno Pumping Station	CSC					
3	MA01	St. Elizabeth Water Tank	CS					
3	O302	Small Dia Watermain Repl 11b	CS					
3	F103	Small Diameter Water Main13C - C&L	DS					
3	F104	Small Diameter Water Main Repl 13D	DS					
3	CY31	Div U - Advance Utility Relocations for NEBT	CS					
3	C904	66" Low Service Steel Main at 8th Street NE & SE	DS					
3	JX01	Sanitary Sewer Rehabilitation 10	DS					



Capital Improvement Program Report 2nd Quarter FY2016

FY2016 - 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	DE01	Small Diameter Water Main Repl 12A	CS					
4	DR02	Low Area Trunk Sewer - Rehabilitation	CS					
4	G101	Rehab of Sewers in Georgetown	CS					
4	G800	Small Local Sewer Rehab 2	CSC					
4	GA01	Small Local Sewer Rehab 4	CSC					
4	J306	National Arboretum Sewer Rehab	CS					
4	O101	Small Dia Watermain Repl 9a	CSC					
4	O201	Small Dia Watermain Repl 10a	CSC					
4	I801	Large Valve Replacements 11R	CSC					
4	O202	Small Dia Watermain Repl 10b	CSC					
4	BV01	RWWPS No. 2 Upgrades	CS					
4	IL10	Creekbed Sewer Rehab Rock Creek Oregon Avenue	CS					
4	IX01	Headworks HVAC Rehab	DS					
4	DS01	New Headquarters Building	CS					
4	FY02	Rehab of RCMI & Beach Dr Sewers Ph II (Lining)	DS					



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

Implementing the Master Plan: DC Water Administrative Headquarters Building (HQO)

Presented to the DC Water Board of Directors

***Environmental Quality and Sewerage Services Committee
&
Water Quality and Water Services Committee***

May 19, 2016

DCWATER.COM



Agenda

- **Review of the Revised 2013 Non-Process Facilities Master Plan**
 - Approved by the DC Water Board of Directors on September 5, 2013 (Resolution #13-87)
 - Implementation & Next Steps
- **Administrative Headquarters Building (HQO)**
 - Progressive Design-Build Contract approved by the DC Water Board of Directors on January 8, 2015 (Contract No. 140060, Skanska/SmithGroup)
 - Progress to Final Design and GMP



2013 Approved Master Plan

NON-PROCESS FACILITIES MASTER PLAN

Revised - July 10, 2013

Approved by DC Water Board - September 5, 2013



Warehouse and Visitor's & Security Center

Prepared for:



By:





2013 Approved Master Plan

Goals of the Master Plan

The Revised Master Plan goals reflect DC Water's continued commitment to being a "World-Class Utility"—the safest, most sustainable, and efficient water utility in the world.

1. Optimize efficient use of existing DC Water land.
2. Optimize efficient use of existing DC Water facilities.
3. Introduce state-of-the-art material management technologies that will enhance inventory security, inventory storage and distribution, transportation, and reduce duplication and inefficiencies of human resources.
4. Implement sustainable strategies and designs within DC Water infrastructure and facility planning.
 - Emphasize stormwater management and energy alternatives/efficiencies while implementing Green Building policies.
 - Reduce risk from emergencies and potential climate change impacts at DC Water facilities whenever feasible.
 - Standardize fixtures and finishes across DC Water facilities.
5. Maximize flexibility throughout DC Water facilities for future treatment needs, distribution system operations, and innovative opportunities.



Pre-2013 Facility Needs = \$105M

LIMITATIONS & CONCERNS WITH SCOPE JUST EXPANDING EXISTING PROJECTS

Limited scope of planned expansion/renovation would not alleviate growing space problems at the plant; removal of IT Trailer is insufficient to meet growing demand

Next round of NPDES permits, in addition to ongoing TMDL development there is currently no space for any new processes or technologies

Construction projects and related laydown areas have taken up all available land at Blue Plains – we are storing materials on the docks

Innovative Codigestion opportunities can't be taken advantage of because we project no space for safe operations – revenue generating potential is limited

Drastic differences in office space / work conditions not addressed

Does not diversify employee commuting options at Blue Plains, which is an increasingly congested area of the District (St. Elizabeth's/DHS, Bolling AFB, etc.)



Issues with Operational Efficiency

- Original plan for COF contained a very limited Scope of Work and required a Parking Deck at Blue Plains – It Did Not:
 - consolidate DETS for efficiency of operations
 - provide space for expanded and consolidated IT Department
 - free up any new space at Blue Plains for training or new processes
- The original plan did not consolidate administrative functions of Customer Service and Water & Sewer Operations
 - By mixing administrative and field operations at various locations the Plan was not utilizing our facilities outside of Blue Plains for their highest and best use

SPACE = \$



Space Needs Analysis – Risks Identified

- Construction projects have taken up most of the available land at Blue Plains – limited availability for future process improvements if required by permit or desired for innovation
- Have limited ability at Blue Plains to manage risks and mitigate accidents or safety problems caused by operations or natural disasters.
- No available room for expansion of non-process facilities at Blue Plains.
- Red-flags raised by the DC Historic Preservation Office (SHPO) include but are not limited to:
 - long-term use of the Old Anacostia P.S. for office facility with off-street parking nearly impossible.
 - Bryant Street being treated as historic structure, potential to get additional parking adjacent to reservoir is highly unlikely



Revised Master Plan \$98M Proposal

BENEFITS OF REVISING THE SCOPE AND MASTER PLAN STRATEGY

Reserves space/facilities at Blue Plains for expansion of water treatment processes, allowing for safe and efficient use of the plant well into the future. Focus on engineering oversight/quality control at Blue Plains

Optimizes operational efficiencies and improve response time to our customers; Reserve space and facilities for strategically placed Water & Sewer satellite field operations by consolidating all of Water & Sewer Administrative functions in one location.

DC Water is better suited on it's own land, with full control over building design & operations

Bringing in the same quality fixtures and furnishings to all departments creates a feeling of unity across DC Water, improves morale, and should result in increased performance.

Limit exposure to the largest industrial complex in DC to essential personnel only, nonessential administrative employees should be located at a different location than the treatment plant

O&M savings of almost \$2M per year from not leasing space for Customer Service (\$750,000 per year @ 80M Street SE) and Water & Sewer Administration (estimated at \$1M per year based on 80M St. rates) to offset debt service costs.

Expands commuting options, leveraging existing Metro transit/bus routes in a central DC location.



2013 Approved Master Plan

Commitment to Blue Horizon 2020

- GOAL 4 Enhance customer/stakeholder confidence, communications, and perception:**
The Administrative Headquarters being centrally located greatly increases opportunities for DC Water to communicate and interact with our customers and the community.
- GOAL 5 Assure financial sustainability and integrity:**
Leverages up to \$2M per year from rent to support debt service, while freeing up vital space at Blue Plains to support future treatment processes, which ensures greater financial integrity in the long-term.
- GOAL 6 Assure safety and security:**
Highlights the facilities that are publically accessible and safe for visitors, thus allowing DC Water to concentrate security resources on critical needs and infrastructure.
- GOAL 8 Optimally manage Infrastructure:**
Represents a major forward step by standardizing non-process facilities, thus eliminating a number of facilities maintenance challenges and reducing energy costs.
- GOAL 9 Enhance operating excellence through innovation, sustainability, and adoption of best practices:**
Long-term sustainability and adoption of facilities best practices will directly enhance operating excellence.



2013 Approved Master Plan



Preserves space for strategic growth and allows for flexibility in using DC Water land

Optimizes operational efficiencies and improves response time to our customers



CIP OVERVIEW

A new service area was created to accommodate non process projects necessary to support DC Water activities, allowing for improved administration of facility spaces for employees.

PROGRAM AREA

Facility Land Use CIP: Projects were reallocated from existing program areas under Sewer, Wastewater Treatment, Combined Sewer Overflow, and Water service areas. These are projects which generally improve DC Water's operations but do not per-se represent a core process area within DC Water's scope of activities. Included in this program area are facility land use projects such as the new headquarters and future work at Bryant Street and COF.





2013 Approved Master Plan

EXECUTIVE SUMMARY

Phasing and Timeline

Project	Project Year(s)	Page Reference
Clean Rivers/DETS Offices at the Central Maintenance Facility (CMF Warehouse Conversion)	Completed (2011)	9
Customer Service Center Relocation (80 M Street, SE)	Completed (2012)	22
Warehouse and Maintenance Security Center	Ongoing (2011-2013)	13
New Administrative Headquarters Building	Ongoing (2013-2016)	26
Customer Business Office (810 First Street, NE)	Lease space to be maintained	22
Permitting Services (1100 Fourth Street, SW)	Lease space to be maintained	22
Fleet Maintenance Facility	Pending	24
Sewer Services Facility	Pending	24, 26
Bryant Street Pump Station (Central DC Satellite Ops)	2016	16
Fort Reno Pump Station (Western DC Satellite Ops)	2016	18
Anacostia Pump Station (Eastern DC Satellite Ops)	2016	20
CMF Consolidation	2016	9
Central Operations Facility (COF)	2016	11

Progress continues on implementing the 2013 Master Plan, a 5-year update will be presented to the Board in 2018 to account for changes to the plan based on operational needs, permit requirements and a continued drive to improve efficiency and the working environment of our most valuable asset – TEAM BLUE!



HQO – Leading by Example





HQO – Reduction of Risk

Blue Plains is Priceless!

- Ensures essential personnel with industrial experience and training are located on the Plant for operations and emergencies, removing all non-essential administrative staff off of the Wastewater Plant
- Relocation of Consultant groups from trailers into CMF and COF eliminating trailers – opening up areas for future process improvements and/or innovations

Customer Care is more efficient and better prepared for emergencies!

- Allows DC Water to develop a holistic plan for all facilities outside the fence in accordance with the directive from SHPO, to take strategic advantage of our facilities around the District
- Bryant Street to be developed as our base of operations during emergencies, centrally located with SCADA and Emergency Management functions located away from the floodplain
- Response times for customers to improve through the deployment of operational staff and equipment throughout DC Water satellite facilities in DC



water is life

HQO – Enhanced Financial Viability

HQO provides for a centrally-located, sustainable work environment where all of DC Water’s administrative personnel will be located in the same place for the first time!

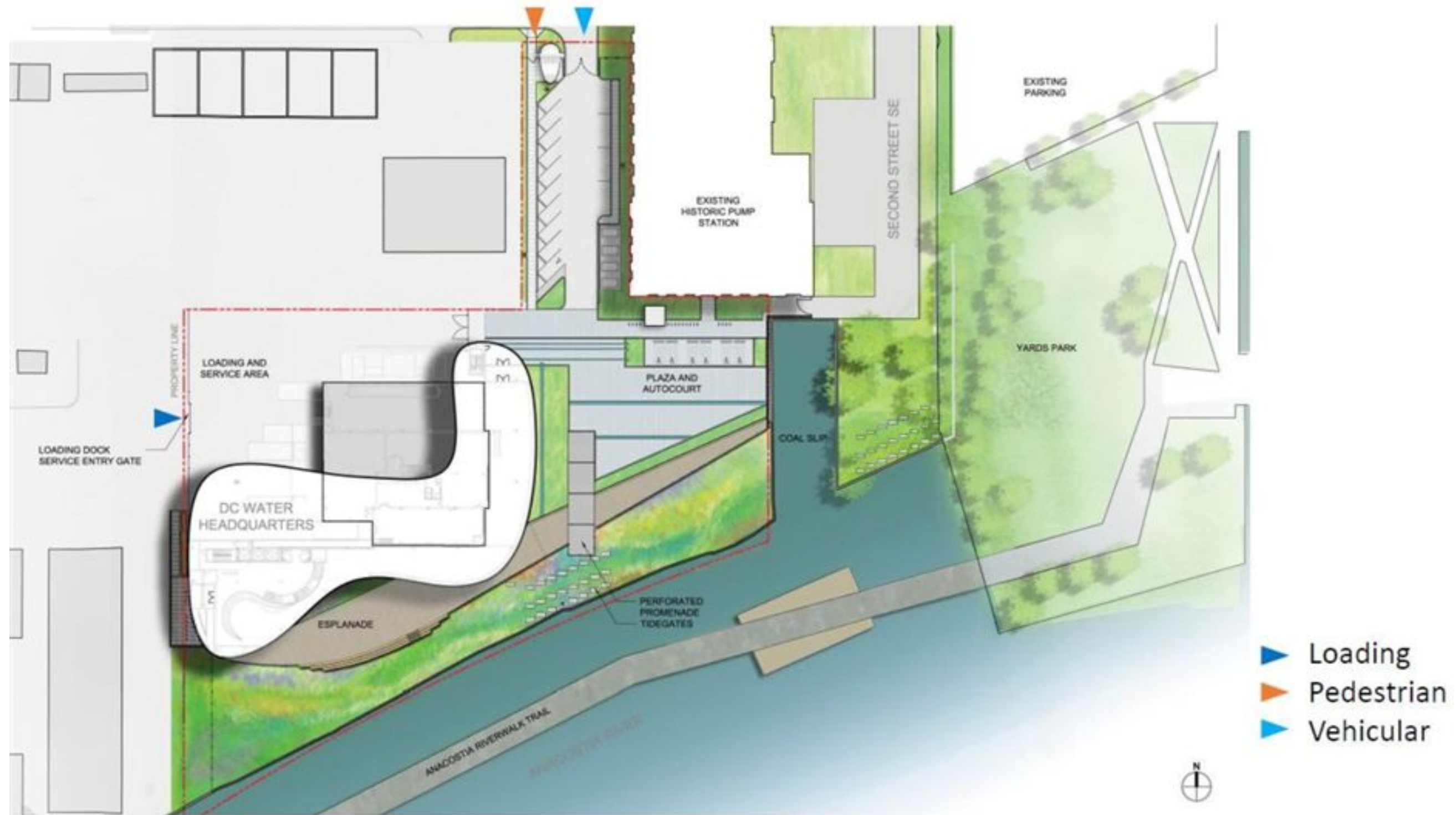
Improving operational efficiencies, our interactions with the community that we serve, and making the highest/best use of our very valuable property.

- **HQO provides space for DETS to be housed in one location in COF, and frees up almost an acre of valuable land at Blue Plains**
- **Provides greatest flexibility in the use of our facilities at Blue Plains AND outside the fence for Customer Care and Operations**
- **Leverages operating dollars currently going towards leased space for debt service, resulting in minimal impact to the ratepayers**

****Long-term facilities planning with a 50-year outlook not just 10 or 20 years****



HQO – Community Engagement





HQO – Creative Solutions

SKANSKA - SmithGroup JJR

Building an office building around an Sewage Pump Station, which is operational 24/7/365 during construction, required some creative thinking to protect our critical infrastructure before, during and after occupancy

- Innovative Design - Uses Shape of structure for passive shading
- Built around and over part of building where old offices are located, not over critical pump room operation
- Design provides for clear river views for all users, visitors.
- Provides for more natural light for employees
- Maintains clear access to rear pump station and docks, distinct and apart from public areas
- Direct – secure access to Board Room from Lobby



HQO – Sustainable and Resilient



1. Ground floor set above 500 year flood plain
2. Innovative heat recovery system heats and cools the building transferring energy to and from the sewage flowing through the pump station
3. Storm water cannot be infiltrated into ground due to compacted site filled with utilities, so it is collected in a 30,000 gallon cistern and used for all toilet flushing and irrigation
4. LID plantings with native vegetation on site and roof
5. Net Solar Gain is significantly reduced by percentage of glazing, overhang, and sunshades; locations are precisely located based on sophisticated energy modeling
6. Generous daylighting due to high ceilings and glazing strategies results in energy savings for daylighting
7. Project will be LEED Platinum and one of the most energy efficient office buildings in the region
8. Sustainable and resilient strategies are expressed and will be part of educational exhibit in the lobby and site



HQO – Ready for Construction

- The National Capital Planning Commission (NCPC) Approved the PUD and related map amendment under the consent calendar on January 7, 2016.
- The DC Zoning Commission issued final approval on February 8, 2016 for Case No. 15-14 District of Columbia Water and Sewer Authority (Consolidated PUD and Related Map Amendment @ Squares 744S and 744SS)
- The U.S. Commission of Fine Arts approved the proposed final design for the new administrative headquarters building, with minimal staff follow-up, on March 17, 2016.

DC Water and the HQO team are working with DCRA staff on initial foundation/grade and related permits for the Main & O campus



HQO – Construction Costs

Board Approved the Headquarters project in the CIP December, 2013

Original Budget:

• Hard Cost:	<i>Design</i>	\$ 5,000,000
	<i>Building Construction</i>	\$50,000,000
	<i>Furniture/Fixtures/Equipment</i>	<u>\$ 5,000,000</u>
• Total Hard Cost		\$60,000,000
• Owner Contingency		\$ 2,750,000
• Soft Cost (Program and Construction Management, OCIP, etc.)		<u>\$ 7,000,000</u>
		\$69,750,000

Increases of \$1,350,000 were made to the Soft Cost line in FY14&FY15 to account for the new Progressive Design-Build Procurement method, including the design competition, design stipends, ROCIP, and additional legal and PM/CM costs related to the extensive permitting process

Current Total Budget: \$71,100,000



HQO – Construction Costs

HQO Construction Budget – Inflation Considerations

Original Budget:

• Hard Cost:	<i>Design</i>	\$ 5,000,000
	<i>Building Construction</i>	<u>\$50,000,000</u>
• Total Hard Cost		\$55,000,000

Original Budget Based on 2014 Construction Start Date

... if adjusted for inflation (2.5% annual per mid-year construction) \$59,969,931

Projected Budget Increase based on Inflation \$ 4,969,931



HQO – Construction Costs

Modifications to the HQO Construction Budget

Original Budget:	Current	2016 Revised Budget based on GMP
• Hard Cost: <i>Design</i>	\$ 5,000,000	\$ 4,149,620 (actual costs to date)
<i>Building Construction</i>	\$50,000,000	\$55,392,311 (now includes raised access floor w/electric and data)
<i>Furniture/Fixtures/Equipment</i>	<u>\$ 5,000,000</u>	<u>\$5,500,000</u> (now includes modular walls)
• Total Hard Cost	\$60,000,000	\$65,041,931
• Owner Contingency / Soft Costs	<u>\$10,600,000</u>	<u>\$10,600,000</u>
	\$71,100,000	\$75,641,931

Budget Increase \$4,541,931

(\$428,000 less than inflation, and HQO includes more features and flexibility!)



HQO – Timeline

Proposed HQO Construction Schedule

June 2, 2016: Board approves the contract

June 9, 2016: Notice to Proceed Issued to Skanska

June 20, 2016: Construction Starts!

November, 2017: Substantial Completion



HQO – Appendix



HQO – Looking to the Future

Consolidation of Personnel in the new Headquarters Administration Building

Department/Division	Current Location
Human Capital Management	COF
Facilities (Mailroom & Copy Center only)	COF
Procurement	COF
Secretary to the Board + Board of Directors	COF
Office of the General Manager	COF
Internal Audit	COF
General Counsel	COF
External Affairs	COF
Finance & Budget + Risk Management	COF
Information Technology	IT Building & COF
Customer Care and Operations (Water and Sewer Planning and Engineering)	Bryant Street, Main & O Street
Customer Service Department and Command Center	80 M Street

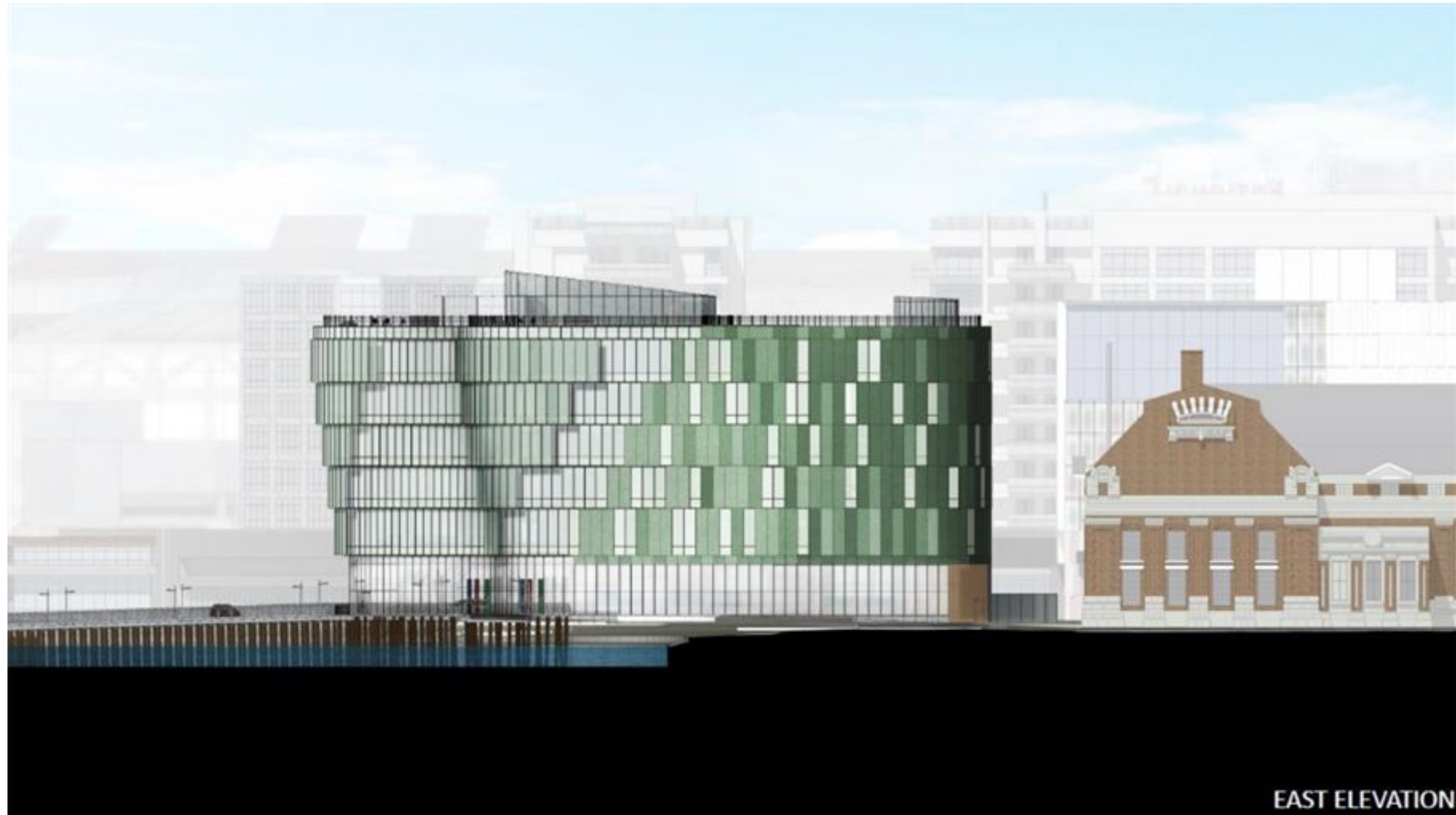


HQO – North Elevation





HQO – East Elevation





HQO – South Elevation





HQO – West Elevation

