dC water is life

Call to Order

I.

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Board of Directors

Bo Menkiti

Meeting of the Environmental Quality and Sewerage Services Committee

> 5000 Overlook Avenue, SW, Room 407 Thursday, February 19, 2015 9:30 a.m.

		Acting Chairperson
9:30 a.m. II. AWTP Status Upda 1. BPAWTP Performa	ates nce	Walt Bailey
9:40 a.m. III. Status Updates: Po	otomac Interceptor Sewer	Liliana Maldonado
1. Odor Abatement Pro	oject	
9:50 a.m. IV. Solar Power Purcha	ase Agreement – Solar Power	George Hawkins
10:15 a.m. V. Action Items – Joir	nt Use	Teresa Scott/Len Benson
1. Contract No. WAS-1	2-026-AA-JR, M.C. Dean	
2. Contract No. WAS-1	3-013-AA-RE, Polydyne	
3. Contract No. WAS-1	3-006-AA-RE, PVS Chemical Sol	lutions
4. Contract No. DCFA	#441, Peer Consultants, PC	
5. Contract No. 14010	0, WGES, Washington Gas Energ	ly Systems
6. Contract No. WAS-0	09-12-AA-GA, M & M Electric Mor	ot Repair, Inc.
10:25 a.m. VI. Clean Rivers Proje	ct Status Update	Carlton Rav

10:40 a.m. VII. Quarterly CIP Report Liliana Maldonado

10:50 a.m. VIII. Other Business/Emerging Issues

10:55 a.m. VIIII. Executive Session

11:00 a.m. X. Adjournment

Bo Menkiti Acting 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:

Schedule a tour in spring 2015 of the MPT and CHP Facilities for the BOD.
 Provide a status update on the Asset Management Program at a future EQSS committee meeting. *{Status report to be provided at the March meeting.}*

DEPARTMENT OF WASTEWATER TREATMENT January 2015

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 299 MGD. There was 46 MG of Excess Flow during this reporting period. The following Figures compare the plant performance with the corresponding NPDES permit limits.



This graph illustrates the monthly average influent flow to the plant. The design average flow is 370 MGD. Blue Plains has a revised 4hour 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.









The Total Phosphorus (TP) is a measure of the particulate and dissolved phosphorus in the effluent. The annual average effluent TP concentration is 0.07 mg/L, which is below the 0.18 mg/L annual average limit.

Total Phosphorus Annual Average (mg/l)



CBOD (mg/l)

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 2.17 mg/L (partial month) which is below the 5.0 mg/L limit. Min and Max Instantaneous pH





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 8.6 mg/L. The minimum instantaneous DO reading is 6.8 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 1.0/100mL, and well below the permit limit.

BLUE PLAINS ELECTRICITY USAGE

Blue Plains AWWTP has installed Power Monitors at critical points within the power distribution system to monitor power usage. The graph below is based on the installed power monitors and reflects usage at Blue Plains.



35,000 30,000 25,000 20,000 15,000 10,000 5,000 0 Mar. 14 Solver zo Ock 7.3 NOKIG OBC 73 ~ ev. 14 70,14 May 14 SOR 74 Ock 14 10×18 Dec 14 May, 73 JUN 73 JUN 14 JUI, 73 AUG 73 1917. IA JUI. 74 ALS IN

TBM Electricity Used, kwh/day

BIOLOGICAL NUTRIENT REMOVAL PERFORMANCE

During the month the full-scale BNR process produced an effluent with average total nitrogen concentration of 3.69 mg/l. The figure below shows Blue Plains effluent total nitrogen (TN) since the implementation of full scale BNR. The Figure shows Blue Plains meeting the Chesapeake Bay Goal of discharging less than 8,467,200 lbs/yr of TN.



Annual Total Nitrogen Load, Ibs/yr

12 Month Period Ending



Cumulative Nitrogen Discharged Since 2000

START-UP AND COMMISSIONING UPDATE

As some parts of the nearly \$1 billion in construction activities at Blue Plains are winding down, the start-up and commissioning process is moving ahead. This process involves testing the newly built facilities to ensure:

- 1. the facilities perform as designed,
- 2. they are completed in accordance with an integrated schedule,
- 3. interfaces with Blue Plains have been made,
- 4. capture all new assets,
- 5. identify and order critical spare parts,
- 6. develop standard operating procedures, and
- 7. train personnel to take over the new facilities.

Operational Demonstrations:

One part of the construction checkout process is called the Operational Demonstration (OD). The OD process provides a platform for the contractor and DC Water to prove out the newly constructed process under the various design conditions which can last from 5 days to 1 year. Following is the three month OD look-ahead for 2015.



The Digested Sludge Dewatering Belt Filter Press Operational Demonstration for Final Dewatering Facility Second Contract is underway for three out of the sixteen belt filter presses. Additionally, Secondary Blower #2 that was rehabilitated under the Enhanced Nitrogen Removal North Contract is being prepared to start its Operational Demonstration targeted for February 17th.



OPERATIONAL DEMONSTRATION: Belt Filter Press (OD 2)

- •The belt filter presses dewater the CAMBI/Digested sludge to remove excess water prior to disposal to reduce waste sludge volume and subsequently sludge disposal costs. The belt filter presses have been started up to accomodate the processing the blended waste primary, secondary, nitrogen waste sludges passing through the CAMBI/Digested sludge
- •Three belt filter presses (BFP)(A3, A4, and A5) are under operational demonstrations. Upon performing a belt tracking resolution by the vendor, BFP A2 shall also undergo operational demonstration.



OPERATIONAL DEMONSTRATION PREPARATION: Secondary Blower #2 (OD 18)

•Each of the 6 secondary blowers that provides air to the secondary biological reactors that removes BOD from the wastewater are being rehabilitated in order to improve blower reliability, performance, and energy economics.

•Blower #2 has been rehabilitated to improve performance and efficiency and is being prepared for operational demonstraiton targeted to commence on February 17th.



Secondary Reactor #3, as was Secondary Reactor #4, is being upgraded to improve secondary treatment by improving the tanks aeration system and flow pattern. Upgrade included modifications to the aeration equipment (diffusers, flow meters, etc.) effluent weirs, and tank configuration. It should be noted that due to lessons learned while upgrading Secondary Reactor #4, the time that will be required to complete the upgrades for this reactor will be approximately 6 - 8 weeks less.

Training:

Successful operation of the new facilities will require significant training of operations and maintenance employees on new processes, procedures and equipment. We are also continuously working with Human Capital Management with the Cornerstone Training program to schedule and track employee training.

Training completed from December 12, 2014 – January, 2014:

- 832 hours of vendor training were completed by DC Water personnel.
- 306 hours of other required training were completed by DC Water personnel.

Asset Integration:

The process of asset integration involves capturing and identifying over 15,000 unique assets associated with the new projects coming on-line. This is done to facilitate ordering of critical spare parts through Maximo, identify qualified vendors, and to develop standard operating procedures. Efforts up through the month of Mid-January 2015 include:

- Asset attributes based on approved service manuals continue to be logged into the Maximo maintenance program,
- Working with Materials Management (MM) to identify vendors for critical spare parts.
- Parts work flow is as follows:





Project Acronym Key:

ENRF-2C: Enhanced Nitrogen Removal Facility 2nd Contract ENR-N: Enhanced Nitrogen Removal – North F&D P3: Filtration and Disinfection Electrical Upgrades Phase 3 Nite/Denite Switchgear: Nitrification/Denitrification Electrical Upgrades FDF-1C: Final Dewatering Facility 1st Contract FDF-2C: Final Dewatering Facility 2nd Contract MPT: Main Process Train

BLUE PLAINS RESOURCE RECOVERY REPORT

In January, biosolids hauling averaged 700 wet tons per day (wtpd). Of this total, 504 wtpd were lime stabilized Class B, and 197 wtpd (28%) were digested. The graph below shows the total hauling by contractor for the month of January. The average percent solids for the unlimed cake was 27.5%, and for digested material was 29.5% The average lime dose for the Class B biosolids was 23.4%. At the end of January the Cumberland County storage pad had approximately 21,000 tons, Cedarville lagoon had approximately11,822 tons of Blue Plains biosolids (~30,000 tons capacity), and Fauquier lagoon had 800 tons. In addition, 210 tons went to the McGill compost facility.

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 January, diesel prices averaged \$3.19/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost in January for the two contracts (DC Water and WSSC) was \$41.71/wet ton. For comparison, in January 2014 the average diesel price was \$4.07/gal and the average contract cost was \$44.13/wet ton.







Date

The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of December 2014. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (EU) limits. The EU limits are more conservative than the USEPA limits, and Blue Plains biosolids metals content is lower than the EU standards as weff Water Biosolids Recycling Program Greenhouse Gas Balance Benefits



January Highlights

Maryland Environmental Services, the DC Water contractor that provides inspection services for the biosolids land application program, also maintains an incident database to track issues and analyze for trends. Please see below the summary of incidents for calendar year 2014. Of significant note are the total number of incidents (20) and those related to odors (3) for the year. Both of these represent a reduction from calendar year 2013 (33% and 50% respectively), and represent remarkably low totals, considering that the program moved 378,377 wet tons of biosolids, with approximately 17,000 truck loads.

INCIDENT TYPE	Jan- 14	Feb- 14	Mar- 14	Apr- 14	May- 14	Jun- 14	Jul- 14	Aug- 14	Sep- 14	Oct- 14	Nov- 14	Dec- 14	TOTALS
Odors Noted by MES Inspector	0	0	0	0	0	0	0	0	0	0	0	0	0
Odor Complaint From Public	1	0	0	0	0	0	1	0	0	0	1	0	3
Odor Noted by Contractor	0	0	0	0	0	0	1	0	0	0	0	0	1
Overturned Trailers	0	1	0	2	0	0	0	0	0	0	0	0	3
Truck/Equipment Malfunctions	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Accident	0	0	0	1	0	0	0	2	0	0	0	1	4
Contractor /Field Management Issues	0	0	0	1	0	0		0	0	1	0	0	2
Biosolids pH/Treatment/Quality	0	0	0	2	0	0	0	0	1	0	0	0	3
Biosolids Spills	0	0	0	0	1	0	0	1	1	0	0	0	3
General Complaint	1	0	0	0	0	0	0	0	0	0	0	0	1
Informational Requests/ Inquiries from the Public	0	0	0	0	0	0	0	0	0	0	0	0	0
Biosolids Dragout onto Public Roadways	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED NUMBER OF ONE WAY TRUCK TRIPS *=	1,610	1,534	1,749	2,269	2,024	1,850	1,738	1,523	1,641	1,576	1,481	N/A	18,994
TOTAL INCIDENTS =	2	1	0	6	1	0	2	3	2	1	1	1	20

TOTAL INCIDENTS NOTED BY MES STAFF DURING THE PERIOD JANUARY 1, 2014 THROUGH DECEMBER 31, 2014

* Estimated Number of One-way Truck Trips = (Number of Trips Direct From the Plant) + (Tonnage Removed Out From Storage / 24 Tons per Truckload) N/A = This data not available at this time



Map of Blue Plains Biosolids Applications and Agricultural \$'s for December 2014

Environmental Benefits

The quantity land applied in December coming directly from the plant and from storage facilities equaled 8,040 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 679 metric tons CO_2 equivalent avoided emissions. This is equivalent to taking 1,382,419 car miles off the road in the month of December (assumes 20 mpg, 19.4 lb CO_2 equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since December, 2006 is 136,374 metric tons CO_2 equivalent.



Clean Water Quality and Technology

The Clean Water Quality and Technology department includes research and development, pretreatment and laboratory programs.

Research and Development Program

Events:

• IWA Specialty conference - Global Challenges: Sustainable Wastewater Treatment and Resource Recovery, Kathmandu, Nepal. More than 350 delegates from 37 countries attended the conference, which was praised by many as one of the best they have attended because of its strong technical program, timely and topical workshops, lively discussions and opportunities to network in a historic and picturesque location. One-third of the submitted abstracts were selected for platform presentations. The 23 technical sessions, 3 utility forums, 4 plenary sessions, 4 poster sessions, 5 workshops, exhibition and technical tour provided a unique opportunity for a healthy discussion among delegates.

DC Water lead overall conference program including general opening and closing sessions, utility forums and workshops. Here are highlights of DC Water contributions,

- (1) 12 technical papers were presented from DC Water and its collaborating universities and utilities.
- (2) Chaired conference closing session, two workshops, one utility forums and three technical sessions
- (3) A group of DC Water employees including Dr. Bipin Pathak, and Dr. Sudhir Murthy were heavily involved in organizing and steering this conference since the conceptual proposal preparation in early 2013.
- (4) Won the US National Science Foundation (NSF) travel grant of \$50,000, joint work with Columbia University. This fellowship helped to support travel costs for professors and interns from our partnering universities
- (5) Received \$9,000 National Science Foundation (NSF) travel grant for DC Water employees that covers registration, airfare, and accommodation costs to attend this conference and workshop.

The importance of the conference for the host country was obvious from its inauguration by the President of Nepal Dr. Ram Baran Yadav, and the attendance by ministers, secretaries and other high ranking officials from the government of Nepal. The global importance of the conference was illustrated by the presence of IWA President Professor Helmut Kroiss as well as WEF President Ed McCormick who not only attended the entire conference but actively participated in it by delivering keynote presentations in plenary sessions. NRR Chair and IWA Board Member Dr. Sudhir Murthy summarized why Nepal was selected as the conference venue. He said the NRR Specialist Group made a special effort to host this conference in a part of the world where real change mattered and could happen.

An article by IWA President Professor Kroiss dealing largely with the Kathmandu conference can be found in Water 21 (IWA Magazine) December 2014. WEF President Ed McCormick's article about the conference is available on WEF highlights.

- Dr. Chris Brouckaert from University of KwaZulu-Natal, South Africa came to visit the
 research and development facilities at Blue Plains. Dr. Brouckaert is specialized in
 modeling chemical and physical processes for municipal and industrial wastes. He is
 one of the pioneers who developed accurate models that can predict pH in complex
 wastewaters. The objective of his visit was to establish a collaboration effort on
 modeling anaerobic digestion processes, iron chemistry, gas transfer and pH where
 our research at Blue Plains can help develop and improve existing process models.
- A group from the research team led by Dr. Bipin Pathak carried out a demonstration using a lab-scale module to teach young students at Georgetown Day School about the basics of wastewater treatment. This is part of the sewer science project organized by external affairs. Approximately 45 students from the 7th grade attended the demonstration.

Blue Plains Pretreatment Program

The Blue Plains Pretreatment Program staff of two manages the Industrial Pretreatment Program, including temporary dischargers from construction activities, as well as the Hauled Waste Program. Additional responsibilities include providing specialized sampling and program management support for the Blue Plains NPDES permit and facilitating the quarterly Blue Plains Storm Water Committee meetings. Pretreatment staff has also been assisting with laboratory services this month for the biosolids digester start-up.

Industrial Pretreatment Program

DC Water currently manages fifteen (15) Significant Industrial User (SIU) permits and sixteen (16) Non-Significant Industrial User (NSIU) permits. One NSIU permit was renewed this month for IBM's groundwater remediation facility. The permit fee was collected prior to issuance. Semi-annual compliance reports have been received by all SIUs for the July to December 2014 period. All SIUs and permitted IUs are currently in compliance with discharge standards. One non-permitted facility, Adams Row Condo, submitted a second set of sample results for their storm water management vault discharge this month, as required by the NOV issued in September. Results still exceed the EPA gas/vapor toxicity discharge screening level, so the NOV requires submittal of a preliminary treatment system design and wastewater discharge permit application, due in February 2015.

DC Water currently manages 57 Temporary Discharge Authorization (TDA) permits, primarily for construction site discharges of groundwater and/or surface runoff in the combined sewer area. No new TDA permits were issued this month. DC Water conducted compliance monitoring at one TDA site this month at the American University East Campus construction on Nebraska Ave., NW (TDA 0714-1004) on December 17, 2014. The discharge mercury concentration was 0.003 mg/L, which is in violation of the mercury limit of <0.001 mg/L. A Notice of Violation was issued to Skanska for the mercury violation and required follow-up monitoring to include weekly monitoring for mercury. Self-monitoring reports for other TDA permits were reviewed. All other TDA discharges are currently in compliance with pretreatment standards.

Hauled Waste Program

The hauled waste program currently has sixteen (16) permitted haulers authorized to discharge domestic septage, portable toilet waste, grease trap waste, groundwater or surface runoff, and other types of waste, if approved in advance and have been characterized and meet pretreatment standards. One waste hauler permit, Magnolia Plumbing, was renewed this month. DC Water collected fees from eight waste haulers this month, including those on a monthly payment plan option.

DC Water received 292 hauled waste loads (824,932 gallons) from permitted haulers this month. Manifest forms from each truck entering the plant are collected by the security guards and picked up daily by Pretreatment staff. Data is entered into an Excel spreadsheet to track the volume and type of loads being discharged daily and the results of sampling. Two random hauled waste samples were collected this month. One waste hauler, Stillwater Septic, had a petroleum oil and grease concentration of 582 mg/L, which was in violation of the petroleum oil and grease limit of 100 mg/L. A Notice of Violation is being prepared.

NPDES Permit Sampling

Pretreatment staff collected quarterly influent, effluent (outfall 002), and biosolids samples for local limit parameters and annual priority pollutants on outfall 002. Sampling included low-level influent mercury using clean sampling techniques. Pretreatment staff also collected one dry weather 24-hour composite sample at outfall 002 this month for low-level PCBs.

Department of Wastewater Treatment - Main Laboratory

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

The **DWT Laboratory** assists the **Department of Sewer Services** on a regular basis conducting microbiological analysis of water samples for E. Coli bacteria.

The **DWT Laboratory** also assists the **Biosolids Division** with ongoing Odor Control and Lime Stabilization studies, as well as continued pH monitoring of biosolids for 40 CFR 503 Pathogen and Vector Attraction Reduction requirements.

The **DWT Laboratory** also participates in the **WWOA Executive Board.** This month, the **DWT Laboratory** continued analysis of samples for the **Biosolids Division** related to DCWater's **Class A Biosolids Certification** project, as well as analysis of digester samples for the new **Cambi Thermal Hydrolysis Digestion facility**.





Adjusted Flows vs Allocated Flows - DECEMBER 2014

■ Fairfax Adjusted Flow ■ Fairfax Allocated Flow ■ DC Adjusted Flow ■ DC Allocation ■ WSSC Adjusted Flow ■ WSSC Allocated Flow

Potomac Interceptor Long-Term Odor Abatement Status Report January 2015

<u>Project Description</u>: This project provides for the long-term abatement of odors generated by the Potomac Interceptor by constructing six ventilation buildings along the main sections of the sewer. The six sites are located in the District of Columbia (Site 1995), Montgomery County, MD (Sites 4, 17 and 27), Fairfax County (Site 31) and Loudoun County (Site 46), VA. The constructed system draws gases from the sewer by vacuum, treats the gas stream with activated carbon and discharges the treated air to the atmosphere.

Summary Status:

General

Construction at the DC and three Maryland sites is substantially complete. Construction at the two Virginia sites is ongoing.

DC Site (Site 1995)

Obstruction in odorous air pipe caused by standing water resolved. Facility running.

Maryland Sites

Site 4 (Little Falls PS) – Construction complete. Facility is running.

Site 17 (Beltway) – Construction complete. Facility is running.

Site 27 (Old Angler's Inn) – Construction substantially complete. The counteractant delivery system is being further upgraded and will be put into service for testing in February 2015 upon completion of hard-wiring. Exhaust-stack modifications will be performed in March 2015. Investigations into sources of odor complaints continue.

Virginia Sites

Site 31 (Fairfax) – Under Construction, 82% complete. Coordination with Verizon is ongoing for site service. Dominion to start permanent power installation on February 6, 2015. Odorous Air (OA) tank is installed; other equipment on site. OA pipe wrapping/joining ongoing in building. Mechanical and electrical installations ongoing in building. Exterior stone work ongoing. Manual checkout and startup projected for 3/30/15 contingent on delivery of power by Dominion by 3/4/15. Full auto-mode operation demonstration test start date is to be determined (TBD) based on delivery and installation dates for air handling unit.

Site 46 (Loudoun) – Under Construction, 95% complete. Permanent power installation is complete. Verizon has installed the cable to the phone board in the building. Electrical interior work ongoing with PLC and transformer set. Interior plumbing is ongoing. Manual checkout and startup began 2/2/2015. Full auto mode operational demonstration test projected to start by 4/1/15.

Design & Construction Activities	Proj	Projected Actual		Status	
	Start	End	Start	End	
Fairfax County (Site 31) Building Closure	8/15/12	9/12/14	8/26/13	9/20/14	
Place in operation, Site 31 (Fairfax)	TBD				Delay in Permanent Power completion and delivery of air handling unit.
Place in operation, Site 46 (Loudoun)	4/01/15				Manual operation planned for February. Full auto-mode operation projected to start by 4/1/15.

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT

Electrical Power Distribution Equipment

Joint Use

Approval to exercise option year two (2) of the electrical power distribution equipment contract in the amount of \$2,960,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
M. C. Dean, Inc. 22461 Shaw Road Dulles, VA 20166	N/A	N/A

DESCRIPTION AND PURPOSE

Base Year Contract Value:				
Contract Base Period:				
Number of Option Years:				
Option Year (1) Value:				
Option Year (1) Dates:				
Option Year (2) Value:				
Option Year (2) Dates				

\$2,490,000.00
03-26-2013 - 03-25-2014
4 years
\$2,490,000.00
03-26-2014 - 03-25-2015
\$2,960,000.00
03-26-2015 - 03-25-2016

Purpose of the Contract:

DC Water Maintenance Services and Distribution Conveyance Systems departments have a continuing need for annual maintenance of high and low voltage switchgear throughout DC Water facilities.

Contract Scope:

To provide supervisory personnel and technicians, as well as materials and supplies, needed for the maintenance of high and low voltage switchgear to ensure reliable electric power for the overall operation of DC Water facilities.

Note:

This contract is a shared contract between two departments; The Department of Maintenance Services (DMS) and the Department of Distribution Conveyance Systems (DDCS). Each user department has its own separate funding.

Spending Previous Year:

Cumulative Contract Value:	03-26-2013 to 03-25-2015 - \$4,980,000.00
Cumulative Contract Spending:	03-26-2013 to 01-30-2015 - \$4,369,638.85

Contractor's Past Performance:

The contractor's past performance has been satisfactory.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	Award Based On:	Best Value		
Commodity:	Service	Contract Number:	WAS-12-029-AA-JR		
Contractor Market:	Open Market with Preference Points for Local Small Business Enterprise				

Joint-Use (Direct)

Funding:	Operating	Department:	Maintenance Services
Service Area:	Blue Plains	Department Head:	Anthony Mack

BUDGET INFORMATION

ESTIMATED USER SHARE INFORMATION

User	Share %*	Dollar Amount
District of Columbia	41.63%	\$ 786,467.97
Washington Suburban Sanitary Commission	42.96%	\$ 811,594.13
Fairfax County	10.57%	\$ 199,686.92
Loudoun County	4.25%	\$ 80,290.39
Potomac Interceptor	0.59%	\$ 11,146.20
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$ 1,889,185.60

*NOTE: Actual usage and cost by facility (either joint-use or non-joint use) varies each fiscal year and are charged to IMA participants based on actual costs at joint-use facilities (i.e., Blue Plains, Potomac Pumping Station, etc.). Services provided to non-joint facilities (i.e., Bryant Street Pumping Station) are charged directly to District ratepayers. In prior fiscal years, the majority of services provided under this contract have been for joint use facilities and for indicative purposes; the user shares shown above reflect Blue Plain's usage.

Non-Joint Use

Funding: Operating Department: Department of Distribution Service Area: Dc Water-wide Department Head: Charles Sweeney

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100%	\$ 963,000.00
Washington Suburban Sanitary Commission	0%	\$ 0.00
Fairfax County	0%	\$ 0.00
Loudoun County	0%	\$ 0.00
Potomac Interceptor	0%	\$ 0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$ 963,000.00

21

2/6/15 Dan Bae Date

Director of Procurement

Gail Alexander- Reeves Director of Budget

Date

Date

Walter Bailey Da Assistant General Manager, Blue Plains

Charles Kiely Date Assistant General-Manager, Customer Care Operations

George S. Hawkins General Manager Date

3 of 3

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT OPTION YEAR TWO (2):

Supply and Delivery of Dry Cationic Polyacrylamide Flocculant (DPAM) Joint Use (Direct)

Approval to execute option year two (2 of the contract for the supply and delivery of dry cationic polyacrylamide flocculant (DPAM) in the amount of \$753,600.00

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Polydyne, Inc.	N/A	N/A
One Chemical Plant Road		
Riceboro, GA 31323		

DESCRIPTION AND PURPOSE

Original Contract Value:	\$601,800.00
Original Contract Dates:	03-04-2013-03-03-2014
No. of Option Years in Contract:	2
Option Year (1) Value:	\$601,800.00
Option Year (1) Dates:	03-04-2014 - 03-03-2015
Option Year (2) Values:	\$753,600.00
Option Year (2) Dates:	03-04-2015 - 03-03-2016

Purpose of the Contract:

The purpose of this contract is to ensure that the District of Columbia Water and Sewer Authority (DC Water) is able to meet its National Pollutant Discharge Elimination Systems (NPDES) permits requirements and other environmental codes and standards.

Contract Scope:

The scope of this contract is for the supply and delivery of secondary-clarifier polymer for the collected wastewater at the Blue Plains Advanced Wastewater Treatment Facility

Spending Previous Year:

Cumulative Contract Value:	03-04-2013 to 03-04-2015-\$1	,203,600.00
Cumulative Contract Spending:	03-04-2013 to 02-03-2015-\$	958,655.60

Contractor's Past Performance:

The contractor's past performance has been satisfactory.

NOTE:

The current price of dry cationic polyacrylamide flocculant is 1.180 per pound. For option year two (2) Polydyne will maintain their current price of \$1.180 per pound.

In the past representatives from Fairfax County Water Authority and the Washington Suburban Sanitary Commission were contacted for the purpose of price comparison, it was found that neither agency uses dry cationic polyacrylamide flocculant (DPAM) as a secondary clarifying agent in wastewater processing.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price Requirements Contract	Award Based On:	Lowest Responsive and Responsible Bidder
Commodity:	Goods and Services	Contract Number:	WAS-13-013-AA-RE
Contractor Market:	Open to Pre-Qualified Vendors	s Based on Field Trials of Sa	amples Submitted

BUDGET INFORMATION

Funding:	Operating	Department:	Wastewater Treatment
Service Area:	Blue Plains AWTF	Department Head:	Aklile Tesfaye

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.63%	\$ 313,723.68
Washington Suburban Sanitary Commission	42.96%	\$ 323,746.56
Fairfax County	10.57%	\$ 79,655.52
Loudoun County	4.25%	\$ 32,028.00
Potomac Interceptor	0.59%	\$ 4,446.24
, TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$ 753,600.00

Date Dan Bae

2/11/15

Director of Procurement

Date

Gail Alexander-Reeves Director of Finance & Budget

2/12/15

Walter F. Bailey AGM, Blue Plains

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

Supply and Delivery of Liquid Sodium Bisulfite

(Joint Use) Direct

Approval to execute option year two (2) of the contract, for the supply and delivery of liquid sodium bisulfite, in the amount of \$597,100.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
PVS Chemical Solutions, Inc.	N/A	N/A
10900 Harper Avenue		
Detroit, MI 48213		

DESCRIPTION AND PURPOSE

Original Contract Value:	\$588,700.00
Original Contract Dates:	01-10-2013-01-09-2014
No. of Option Years in Contract:	4
Contract Modification Value:	\$95,000.00
Contract Modification Dates:	01-10-2014-03-09-2014
Option Year (1) Value:	\$560,570.00
Option Year (1) Dates:	03-10-2014-03-09-2015
Option Year (2) Value:	\$597,100.00
Option Year (2) Dates:	03-10-2015 - 03-09-2016

Purpose of the Contract:

The purpose of this contract is to ensure that the District of Columbia Water and Sewer Authority Water is able to meet Environmental Protection Agency (EPA) regulations and other environmental codes and standards.

Contract Scope:

The scope of this contract is for the supply and delivery of liquid sodium bisulfite (38% trade) for use in the treatment of collected wastewater at the Blue Plains Advanced Wastewater Treatment Facility.

Spending Previous Year:

Cumulative Contract Value:	01-10-2013 to 03-09-2015-\$1,244,270.00
Cumulative Contract Spending:	01-10-2013 to 01-30-2015-\$1,239,652.33

Contractor's Past Performance:

The contractor's past performance has been satisfactory.

Note:

The current price of liquid sodium bisulfite (38% trade) is \$0.1933 per delivered pound. In accordance with Section E.6 of the contract, Price Escalation/De-escalation Adjustment, the unit will be adjusted up or down based upon the indices price and the change in indices for caustic and sulfur. Based upon the caustic and sulfur indices, the price of liquid sodium bisulfite for option year two (2) is \$0.1881 per delivered pound.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price Requirements Contract	Award Based On:	Lowest Responsive and Responsible Bidder	
Commodity:	Goods and Services	Contract Number:	WAS-13-006-AA-RE	
Contractor Market:	Open Market with Preference	Points for LSBE		

BUDGET INFORMATION

Funding:	Operating	Department:	Wastewater Treatment	
Service Area:	Blue Plains	Department Head:	Aklile Tesfaye	

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.63%	\$248,572.73
Washington Suburban Sanitary Commission	42.96%	\$256,514.16
Fairfax County	10.57%	\$63,113.47
Loudoun County	4.25%	\$25,376.75
Potomac Interceptor	0.59%	\$3,522.89
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$597,100.00

2/11/15 Date Dan Bae

Director of Procurement

Date

Gail Alexander-Reeves Director of Budget

2/12/15 W

Walter F. Bailey Date Assistant General Manager, Blue Plains

George S. Hawkins General Manager

	-			1
	C)a	t	e
	-			7

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

ACTION REQUESTED

ENGINEERING SERVICES SUPPLEMENTAL AGREEMENT:

Operations and Maintenance Assistance Program IV (Joint Use)

Approval to execute Supplemental Agreement No. 01 for \$1,332,421. The modification exceeds the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
PEER Consultants, PC	AECOM		
888 17 th Street, NW	Arlington, VA		10.88%
Suite 850			
Washington, DC	Delon Hampton & Associates		
20006	Washington, DC	MBE	12.04%
	E.B. Advanced, PC		2 A
(WBE)	Washington, DC	MBE	14.14%

DESCRIPTION AND PURPOSE

Original Contract Value:	\$17,987,3	367.00
Value of this Supplemental Agreement:	\$1,332,4	421.00
Cumulative SA Value, including this SA:	\$1,332,4	421.00
Current Contract Value, Including this SA:	\$19,319,7	788.00
Original Contract Time:	1825 Days	(5 Years)
Time extension, this SA:	180 Days	
Total SA contract time extension:	180 Days	(6 Months)
Contract Start Date:	06-29-2011	
Contract Completion Date:	12-31-2016	

Purpose of the Contract:

To provide start-up, operations and maintenance engineering services required for the completion of critical projects.

Original Contract Scope:

- Perform program management and process engineering tasks to fulfill EPA-mandated grant requirements.
- Provide equipment maintenance requirements and documentation.
- Provide Standard Operating Procedures revision and updating.
- Provide operability evaluations.

Current Supplemental Agreement Scope:

 Provide parts processing and additional start-up services associated with nine capital construction contracts before turnover of those projects to the operating departments. These contracts that are ongoing or nearing completion require start-up services that include additional preventative maintenance (PM) development, comprising evaluation of functional inspections not addressed in the service manuals, for use as supplements to the manufacturer's recommendations. In addition, run-to-failure alternatives to the manufacturer's recommended PMs in the service manuals will be evaluated for economic viability.

Future Supplemental Agreement Scope:

 A future supplemental agreement may be needed to provide short-term assistance to Materials Management.

PROCUREMENT INFORMATION

Contract Type:	Cost Plus Fixed Fee	Award Based On:	Highest Ranking Score
Commodity:	Engineering Services	Contract Number:	DCFA#441-WSA
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	Department:	Engineer	ring and Technical Services
Service Area:	Wastewater	Department H	ead:	Liliana Maldonado
Project:	BG, BR, BT, EV, XA, BI, E8, E9 and EE			

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.22%	\$549,224.00
Washington Suburban Sanitary Commission	45.84%	\$610,782.00
Fairfax County	8.38%	\$111,657.00
Loudoun County & Potomac Interceptor	4.56%	\$60,758.00
Total Estimated Dollar Amount	100.00%	\$1,332,421.00

as Gail Alexander-Reeves Date

Director of Budget Dan Bae

2/1/15 Date

Director of Procurement

2-10-15 Leonard R. Benson Chief Engineer Date

George S. Hawkins

General Manager

Date

DCFA 441 SA 1 OMAP Fact_Sheet 02 09 2015 (3).doc

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT:

Solar Power Purchase Agreement (PPA) Project

(Joint Use)

Approval to execute a 20-year contract for solar power purchase at Blue Plains with a not-to-exceed amount of \$23,096,108

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Washington Gas Energy Systems (WGES) 6862 Elm St., Suite 300 McLean, VA 22101	SUBS: Standard Solar 1355 Piccard Drive, Suite 300 Rockville, MD 20850	PARTICIPATION:

DESCRIPTION AND PURPOSE

Contract Value, not to exceed:	\$23,096,108
Contract Time:	7300 Days
Anticipated Contract Start Date:	04-01-2015 (Start of Design and construction)
	12-31-2016 (Start of Operations)
Anticipated Contract Completion Date:	12-31-2036
Proposal Opening Date:	11-13-2014
Other firms submitting proposals/qualification state	ments:
*Ameresco, Inc.	NRG and TectaSolar
Conti and Altus Power America	*SolarCity / groSolar
Distributed Sun LLC	*SunEdison / Pepco Energy Services / Blue Wave Capital
Hanwha QCELLS and Performance Contracting, Inc.	Telamon Corp. / Singleton Electric / RER Energy Group / Geres
Nexamp	

* Asterisk indicates 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 AWTP through the installation of solar panels.

Contract Scope:

- Installation of solar panels over the following areas:
 - East Secondary Sedimentation Basins: 2.49 MW capacity in DC
 - West Secondary Sedimentation Basins: 2.12 MW capacity in DC
 - Dual Purpose Sedimentation Basins: 1.65 MW capacity in DC
 - Nitrification Sedimentation Basins: 4.83 MW capacity in DC
- The schedule for expected power and the guaranteed unit price was provided in the bid documents for every year for the contract duration.

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: C	Dperating	Department:	Wastev	water Treatment	
Service Area: E	3lue Plains	Department H	ead:	Aklile Tesfaye	

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.63%	\$9,614,910
Washington Suburban Sanitary Commission	42.96%	\$9,922,088
Fairfax County	10.57%	\$2,441,259
Loudoun County	4.25%	\$ 981,584
Others (PI)	0.59%	\$ 136,267
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$ 23,096,108

2/13/15 Date Dan Bae

Director of Procurement

marl 7. 2/13/15

Gail Alexander Reeves Director of Finance & Budget

Date

13/15 Wa 2 Date

Walter Bailey AGM, Wastewater Treatment

George S. Hawkins General Manager

Date

140100 Fact Sheet_Solar PPA - Draft doc

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT MODIFICATION:

Repair of Industrial Pumps (Joint Use - Direct)

Approval to execute a modification to add funding in the amount of \$312,500.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
M & M Electric Motor Repair, Inc.	N/A	100%
205 Bucheimer Road		
Frederick, Maryland 21701		
LSBE		

DESCRIPTION AND PURPOSE

Original Contract Value:	\$610,000.00
Original Contract Dates:	04-23-2009-04-22-2010
No. of Option Years in Contract:	4
Option Year (1-4) Values:	\$2,032,873.00
Option Year (1-4) Dates:	06-22-2010-06-21-2014
Contract Modification Value:	\$2,123,890.12
Contract Modification Dates:	10-01-2009-09-30-2015
This Contract Modification Value:	\$312,500.00
This Contract Modification Dates:	01-01-2015- 09-30-2015

Purpose of the Contract:

To contract for services to repair and maintain various large industrial pumps for the District of Columbia Water and Sewer Authority's (DC Water) Departments of Maintenance Services (DMS) and Water/Sewer Pump Maintenance (WSPM).

Contract Scope:

To provide all labor, materials, tools, equipment, and transportation necessary to repair, replace, or rebuild pumping equipment at DC Water's water and wastewater facilities.

Spending Previous Years:

Cumulative Contract Value:	04-23-2009 to 09-30-2015 —\$4,766,763.12
Cumulative Contract Spending:	04-23-2009 to 12-31-2014-\$4,274,199.94

Contractor's Past Performance:

The contractor's past performance has been satisfactory.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	Award Based On:	Lowest responsive bid by a responsible contractor
Commodity:	Goods and Services	Contract Number:	WAS-09-012-AA-GA
Contractor Market:	Open Market with preference for LBE and LSBE		

BUDGET INFORMATION

Funding:	Capital	Departments:	Maintenance Services (DMS),
Service Area:	Various	Department Heads:	Anthony Mack
Project:	EP6C701		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.22%	\$ 128,812.50
Washington Suburban Sanitary Commission	45.84%	\$ 143,250.50
Fairfax County	8.38%	\$ 26,187.50
Loudoun County & Potomac Interceptor	3.73%	\$11,656 .25
Potomac Interceptor	0.83%	\$2,593.75
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$ 312,500.00

NOTE: Actual usage and cost by facility (either joint-use or non-joint use) varies each fiscal year and are charged to IMA participants based on actual costs at joint-use facilities (i.e., Blue Plains, Potomac Pumping Station, etc.). Services provided to non-joint facilities (i.e., Bryant Street Pumping Station) are charged directly to District ratepayers. In prior fiscal years, the majority of services provided under this contract have been for joint use facilities and for indicative purposes; the user shares shown above reflect Blue Plain's usage.

Z/6 Date Dan Bae

Director of Procurement

Je. 201-Date

Gail Alexander-Reeves D Acting Director of Finance & Budget

2/18/15 Date

Walter Bailey Assistant General Manager

Date

George S. Hawkins General Manager

2 of 2



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



February 19, 2015



Agenda

- DC Clean Rivers Projects Implementation Schedule
- Major Accomplishments 2014, fourth quarter
- Schedule
- CIP Budget Status
- FY 2015 Spending Status
- Summary





Cardinal Wuerl prays at a Dec. 12, 2014 Anacostia River Tunnel Boring Machine Naming Ceremony – "Nannie"



Vice President Biden Announces Infrastructure Program and Tours Anacostia River Tunnel mining site on January 16, 2015.

2

Anacostia River Projects: Implementation on Schedule



Months shown on timeline indicate construction start dates.





Environmental Quality and Sewerage Services Committee - 10:25 a.m. VI. Clean Rivers Project Status Update - Carlton Ray



MAJOR ACCOMPLISHMENTS THROUGH FY 2014 QUARTER 4 UPDATE


Division A – Blue Plains Tunnel Progress at-a-Glance

As of January 1, 2015

Design-Builder: **Traylor-Skanska Jay Dee JV** Contract Price: \$330M Percent Complete: 87%



Blue Plains AWWTP

Div D – JBAB Overflow and Diversion Structures

As of January 1, 2015

Design-Builder: **Corman Construction** Contract Price: \$40M Construction Percent Complete: 0%



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

- Receiving / Reviewing construction submittals.
- Receiving / Reviewing design submittals.
- Received USACE permit modification for CSO 003 demolition and riverbank restoration.





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

As of January 1, 2015

Contractor: **EE Cruz** Contract Price: \$53.4M Construction Percent Complete 0%



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

- Awarded Construction Contract on 1/6/2015.
- Issued NTP on 1/15/2015.
- Pre-construction meeting held on 2/3/2015.







Div I – Main Pumping Station (MPS) Diversions

As of January 1, 2015

Design-Builder: **Corman Construction** Contract Price: \$53M Construction Percent Complete: 4%



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.

- Receiving / Reviewing critical construction submittals.
- Receiving / Reviewing final design submittals.
- Instrumentation installation ongoing
- Target date to start secant pile operation is 3/3/2015.







Div H – Anacostia River Tunnel Progress at-a-Glance

As of January 1, 2015

Design-Builder: **Impregilo Healy Parsons Joint Venture (IHPJV)** Contract Price: \$253.9M Percent Complete: 34% (\$)/ 35% (time)



Div E – M Street Diversion Sewer

Pumping Station

As of January 1, 2015

Contractor :**Corman Construction** Contract Price: \$32M Construction Percent Complete: 98%



Div E – M Street Diversion Sewer

- Project is substantially complete (Accepted Beneficial Occupancy on 12/30/2014).
- Site restoration work remains (winter weather permitting).
 Anticipated completion Spring 2015.







RC-A: Piney Branch Early Action GI



- Paul PCS plan complete with Board and Administration support.
- DCCR staff to meet with Washington Latin PCS Administration in February 2015 to review concept design plans.
- Washington Latin Draft Concept Design includes:
 - Downspout disconnection into rain barrels to support school's garden
 - Swale and bioretention to reveal stormwater management in action
 - Right-of-way bioretention to maximize volume capture and minimize cost per impervious acre treated
 - Interpretive signage to support student education /community outreach
- Paul Draft Concept includes:
 - Downspout disconnection into bioretention that frames school entrance/ student pick-up/ drop-off location.
 - Right-of-way runoff capture (at same location) to maximize volume managed and minimize cost per impervious acre treated.
 - Interpretive signage to support student education /community outreach.







GI Challenge

- Design contracts (GI Streetscape and GI Parks) scope and fee negotiated
- Design contract for GI Streetscape anticipated to be awarded March 5, 2015
- Design contract for GI Parks anticipated to be awarded in February 2015
- Two projects:
 - Project #1: GI at 2 Triangular Parks in Piney Branch
 - Project #2: GI Streetscape at one street in Piney Branch





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



Div U: Advance Utility Relocations for Northeast Boundary Tunnel



- Purpose: Clear surface work sites to make way for Tunnel Contractor
- Started final design work
- Held meetings with DC Water, Washington Gas, Pepco, Verizon and Comcast to discuss utility relocations
- RFQ planned for end of November 2015
- RFP planned for end of January 2016
- Construction is planned to start on 7/1/2016 and continue for 14 months

Zone to be cleared of utilities





4th & Rhode Island Ave NE

Div J: Northeast Boundary Tunnel



- 23 foot diameter tunnel, 70 to 180 feet deep, 28,600 feet long, 7 shafts and 6 diversion structures.
- Estimated construction value : \$500 - \$600 million
- Delivery Method: Design-Build (accelerated schedule)
- CIP Budget: \$562M

Dates									
Decian	(Constructior	1						
Design	RFP	NTP	Completion						
DB	June 2016	2017	2022						



Div J: Northeast Boundary Tunnel



- Met with DDOE to ascertain requirements for construction of wells and dewatering
- Developed, submitted and responded to WMATA comments on maintaining bus service during construction
- Received preliminary approval from NCPC for the W Street Ventilation Control Facility
- Continued property / easement acquisition
- Completed Bloomingdale MOU (Northeast Boundary Neighborhood Protection Project MOU)



Bloomingdale MOU (Northeast Boundary Neighborhood Protection Project MOU)

- Executed Sept 2014 between District and DC Water
- Provides for:
 - DC Water to construct 3 projects:
 - McMillan Stormwater Storage by March 2014 (completed)
 - First St Tunnel by Spring 2016 (in construction on schedule)
 - Northeast Boundary Tunnel goal of 2022 (in design on schedule)
 - Provides for granting of easements by District for project
 - Provides framework and schedule for DC Water and District to work together to deliver these projects on schedule
 - Provides for approximately <u>\$58 M</u> of funding from District for change in project scope and for acceleration of projects



Consent Decree Modification Update

- DC Water proposing to modify consent decree:
 - Rock Creek replace Piney Branch Tunnel with Green Infrastructure
 - Potomac River build GI and sewer separation to allow reducing volume of Potomac Tunnel
- Proposed modification has been through 90-day public comment period
- EPA, DOJ, District and DC Water are negotiating terms of consent decree modification



Potomac River Tunnel

- Working on Environmental Impact Statement (EIS) with National Park Service as co-lead agency
- Upcoming Consent Decree deadlines:
 - Start facility plan by March 23, 2015
 - Submit facility plan by March 23, 2017
- GI consent decree modification would impact nature and schedule of Potomac Tunnel



Many Historic and Archaeological Resources are Located along Potomac Tunnel Alignment



List of Historic Resources in Vicinity of Conceptual Potomac Tunnel Alignment

Historic Districts

- 1. Chesapeake and Ohio Canal National Historical Park (NR, NHL, DC, NM, NHP)
- East and West Potomac Parks Historic District (NR, DC)
- 3. Foggy Bottom Historic District (NR, DC)
- 4. Georgetown Historic District (NR, NHL, DC)
- 5. Glover-Archbold Park (NR, DC)
- 6. Rock Creek & Potomac Parkway (Res. 360) (DC)
- 7. The Potomac Gorge (Potomac Palisades) (DC)

Historic Sites¹

- 8. Adams-Mason Houses (DC)
- 9. American Institute of Pharmacy (NR, DC)
- 10. Arlington Memorial Bridge (NR, DC)
- Arlington Memorial Bridge Related Features, Rock Creek & Potomac Parkway Terminus (NR, DC)
- Arlington Memorial Bridge Related Features, The Watergate (DC, NR)
- 13. Bomford Mill (Pioneer Flour Mills; Flour Mill) (DC)
- 14. Brickyard Hill House (DC)
- 15. City Tavern (NR, DC)
- 16. Cuban Friendship Urn (DC)
- DC Paper Manufacturing Company (Paper Mill) (DC)
- 18. DC War Memorial (NR, DC)
- 19. Dodge Warehouses (& Adjacent Structures) (DC)
- 20. Duvall Foundry (DC)
- 21. Forrest-Marbury House (DC)

¹ Most of these sites are also contributing buildings to the HDs mentioned above; however to save space, they are only identified here by their individual listings.

- 22. Georgetown Commercial Buildings Thomas Cramphin Buildings (DC)
- Georgetown Commercial Buildings, 3068, 3056, 3072, 3112, 3116, 2919 M Street, N.W. & 1216, 1219, 1221, 1249 Wisconsin Avenue, NW (DC)
- Georgetown Commercial Buildings, M Street and Wisconsin Avenue, Reckert House (DC)
- 25. Georgetown Commercial Buildings, Thomas Sims Corner & Houses, Ross & Getty Building (DC)
- 26. Georgetown Custom House and Post Office (NR,
- DC) 27. Georgetown Market (NR, DC)
- Georgetown University Healy Hall/Old North (NR, NHL, DC)
- 29. Godey Lime Kilns (Washington Lime Kilns) (NR, DC)
- 30. Grace Church (NR, DC)
- Halcyon House (Benjamin Stoddert House) (NR, DC)
- John Lutz House (Aged Woman's Home; Female Union Benevolent Society) (DC)
- 33. Joseph Carleton House (DC)
- 34. Key Bridge (NR, DC)
- 35. Lincoln Memorial & Statue of Lincoln (NR, DC)
- Loughborough-Patterson House (Junior League of Washington) (DC)
- 37. McCleery House (DC)
- 38. Mullett Rowhouses (NR, DC)
- 39. National Academy of Sciences (NR, DC)
- 40. Nicholas Hedges House and Federal Houses (DC)
- 41. Old Engine Company No. 5 (Bank of Columbia,
- Georgetown Town Hall & Mayor's Office) (DC) 42. Old Naval Observatory (National Observatory; Naval Museum of Hygiene; Naval Medical School) (NR. NHL, DC)
- 43. Old Stone House (NR, DC)
- 44. Potomac Aqueduct Bridge Abutment and Pier (DC)

- 45. Potomac Boat Club (NR, DC)
- 46. Potomac Masonic Lodge No. 5 (DC)
- Prospect House (Lingan-Templeman House) (NR, DC)
- Saint Mary's Episcopal Church (Saint Mary's Chapel) (NR, DC)
- 49. The Luzon (The Westover) (NR, DC)
- 50. Jefferson Memorial (NR, DC)
- 51. Quality Hill (NR, DC)
- 52. Vietnam Veterans Memorial (NR)
- 53. Vigilant Firehouse (NR, DC)
- 54. Washington Canoe Club (NR, DC)
- 55. Watergate (NR, DC)
- 56. William Knowles House (DC)
- 57. Wisconsin Avenue Bridge (High Street Bridge) (DC)

DOEs and Pending Designations (Not on map)

- Proposed Old Naval Observatory HD (pending designation)
- 59. Potomac Annex Historic District (DOE)
- 2430 E Street & 2301 Constitution Avenue NW E Street Complex (pending designation)
- 61. Kennedy Center (DOE)
- 62. West Heating Plant (DOE, Georgetown HD)

Key:

- DOE Property has a Determination of Eligibility
- DC Property listed on the DC Inventory of Historic Sites NR – Property listed in the National Register of Historic Places
- NHP Property is a National Historic Park
- NHL Property is a National Historic Landmark
- NM Property is a National Monument

Environmental Quality and Sewerage Services Committee - 10:25 a.m. VI. Clean Rivers Project Status Update - Carlton Ray

PROGRAM SCHEDULE



DC Clean Rivers Schedule

														Tim	ne n	ow														
		CY 20		010 CY 2011		CY 2012		CY 2013 CY 2014)14	CY 2015		C	CY 2016 CY			CY 2	2017 CY 2018			8									
DIV	DC Clean Rivers Jobs	1	2 3	4	1 2	2 3	4	1	2 3	3 4	1	2 3	3 4	1	2	3 4	1	2	3	4	1	2	3 4	1	2	3	4	1 2	: 3	4
W	Blue Plain Tunnel Site Prep																													ł
Α	Blue Plain Tunnel (D/B)																													
С	CSO 019 Overflow and Diversions																													
В	Tingey Street Diversions (D/B)																													
D	JBAB Overflow and Potomac Outfall Sewer Div. (D/B)																													
Е	M Street Diversion Sewer (CSOs 015, 016 and 017)																													1
G	CSO 007																													ł
Н	Anacostia River Tunnel (D/B)																													ł
Ν	Low Impact Development																													1
Ρ	First Street NW Tunnel (D/B)																													1
U	Advance Utiltiy Relocation NEBT																													
J	Northeast Boundary Tunnel (D/B)																									Th	iru 2	2022		
Ι	Main PS Diversions (D/B)																													1
S	Irving Street Green Infrastructure (GI)																Т									ΓΙ				1
Y	Tunnel Dewatering Pumping Station and ECF (D/B)																													1
Ζ	Poplar Point PS Replacement and MOS Diversion																													1
RC-A	Piney Branch Early Action GI																													
A (=																														
A/E	Procurement	Des	sign		Cont	ract	tor P	rocu	reme	ent		Perm	nittin	g/E	ngir	neer	ing		Co	nstr	ucti	on		С	omp	lete	d 📘	<u> </u>		
				CY	201	9	C	120	20	C	Y 20	021	C	Y 2	02	2	CY	<mark>20</mark>	23	C	Y	20	24	С	Y 2	025	<mark>;</mark>			
	DC Clean Rivers Jobs			1 2	2 3	4	1	2 3	3 4	1	2	3 4	1	2	3	4	1	2 3	8 4	1	2	3	4	1	2	3 4	4			
ľ	Potomac Projects																													



Rock Creek Projects

Potomac and Rock Creek project schedules are subject to change pending final Consent Decree Modifications

Environmental Quality and Sewerage Services Committee - 10:25 a.m. VI. Clean Rivers Project Status Update - Carlton Ray

CURRENT CIP BUDGET STATUS



DC Clean Rivers CIP Budget

				CIP Budget Cost (\$ Billions)		
Program Funding	Proj. No.	Project & Discription		FY15 Approved	Facility Plan	
CSO	BA	Low Impact Development Projects	Projects	0.003	2008	
			Subtotal	0.003		
CSO	CY	Anacostia River Projects	Projects	1.903	2008	
			Subtotal	1.903		
			a 1 (1)			
CSO	CZ	Potomac River Projects	Projects (1)	0.410	2018	
			RISK Allowance (2)	0.000	2019	
			Subtotal	0.410		
CSO	DZ	Rock Creek Projects	Projects (1)	0.076	2019	
			Subtotal	0.076		
	EG, FS,	ENR Related Projects (Blue Plains Tunnel, JBAB Overflow and Diversion Structures, BP				Projects required for ← nutrient removal at Blue
BTN	H7	Site Prep)	Projects	0.237	2008	Plains.
			Subtotal	0.237		
			Total	2.630		
		Reimbursement by the district:		-0.059		
		Revised Total:		2.571		



(1) Cost estimates for projects CZ and DZ were prepared in 2001 a	and do not reflect the curre	ent scope of work. Co	ost for these					
projects will be re-estimated once a better definition of scope is	made available.							
(2) Risk allowance is for work that can be needed for tunnel cons	(2) Risk allowance is for work that can be needed for tunnel construction as more information becomes available on:							
- Soil conditions and tunneling under existing structures								
- Complying with thrid party requirements (e.g. NPS)								
- Unknow hazardous material								

DC Water: An Environmental Innovator



https://www.youtube.com/watch?v=A57CJqtGhfc



Environmental Quality and Sewerage Services Committee - 10:25 a.m. VI. Clean Rivers Project Status Update - Carlton Ray

FISCAL YEAR 2015 SPENDING STATUS



FY2015 Spending Status



• To-date expenditures are tracking higher than planned mostly due to invoices from FY14 that were processed during October.

Environmental Quality and Sewerage Services Committee - 10:25 a.m. VI. Clean Rivers Project Status Update - Carlton Ray

SUMMARY



Summary On Track To Meet CD Milestones + On Budget

Construction:

 Overall physical construction percent complete for awarded projects is approximately 56%

Upcoming Procurement:

- RFQ and Bid Documents for Div U (Advance Utility Relocations for Northeast Boundary Tunnel) are planned for September 2015 and January 2016
- RFQ and RFP for Div J (Northeast Boundary Tunnel) are planned for October 2015 and June 2016, respectively

District of Columbia Water and Sewer Authority

Capital Improvement Program Report



FY-2015 1st Quarter October 1st through December 31st, 2014

Board of Directors Environmental Quality and Sewerage Services Committee

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

> > February 2015



Program Performance

Current projected program disbursements through the end of the fiscal year compared with the approved FY15 projections are shown in the chart below:



Disbursement Projections Summary

Current projected fiscal year 2015 CIP disbursements are \$579,799,000 through the end of December, which is 1% below the baseline disbursement projections of \$585,182,000. Current disbursement projections within the service areas are as follows:

Wastewater Treatment Service Area

Baseline Disbursements\$206,259,000Projected Disbursements\$200,767,000 (\$5.5M below baseline projection)Significant project varianceslisted below

- Enhanced Nitrogen Removal Program Area (Projected to be \$4.6M below baseline)
 - The projected disbursements are expected to be \$7.0 million below baseline for Project EE Filtrate Treatment Facilities, this is a result of undocumented underground utilities encountered during site preparation, that delayed the mass excavation start by 2.5 months,

Page 2 of 9



and slower than expected major process equipment submittal approval that has delayed the payment schedule for those items. It is anticipated the contract will be complete within budget.

- Project EG - Blue Plains Tunnel is proceeding favorably with mining expected to be complete mid to late summer 2015 when disbursements are projected to reduce. At fiscal yearend disbursements are anticipated to be \$4.3 million above baseline projection.

CSO Service Area

Baseline Disbursements\$271,100,000Projected Disbursements\$278,731,000 (\$7.63M above baseline projection)Significant project variance listed below:

- *Clean Rivers Program (Projected to be \$6.3M above baseline)*
 - Currently projected disbursements in Project CY Anacostia LTCP Projects are \$6.3M above baseline due to work on the Blue Plains Tunnel Division A and Anacostia River Tunnel Division H design build contracts proceeding favorably, with anticipated on time completion. In addition, the acceleration of the First Street Tunnel as part of the Bloomingdale flood alleviation is also proceeding well. The projects remain within budget.

Stormwater Service Area

Baseline Disbursements	\$2,559,000
Projected Disbursements	\$1,018,000 (\$1.5M below baseline projection)

Sanitary Sewer Service Area

Baseline Disbursements	\$40,258,000
Projected Disbursements	\$35,363,000 (\$4.9M below baseline projection)

- Sanitary Collection Sewers Program Area (Projected to be \$3.5M below baseline)
 - Currently projected disbursements are \$2.1 million below baseline in Project G1 Small Local Sewer Rehab 1 due to delayed construction procurement resulting from development of the Cured in Place Pipe specifications to better align level of quality with economic viability.
- Sanitary Interceptor/Trunk/ Force Sewers (Projected to be \$1.9M Below Baseline)
 - Preliminary inspection in Project IN Upper East Side Trunk Sewer Rehabilitation revealed less debris than anticipated and therefore, the cost for full cleaning and inspection was greatly reduced. As a result projected disbursements are \$0.7 million below baseline.

Water Service Area		
Baseline Disbursements	\$65,006,000	
Projected Disbursements	\$63,920,000	(\$1.1M below baseline projection)

Page 3 of 9



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 MA Saint Elizabeth's Water Tank Construction Contract (\$20M - \$25M), WQ&WS Jun, BOD Jul
- Project J3 National Arboretum Sewer Rehab Contract 1 Construction Contract (\$5M - \$10M), EQ&SS Apr, BOD May
- Project O3 Small Diameter Watermain Rehab 11a Construction Contract (\$5M - \$10M), WQ&WS Jun, BOD Jul



Key Performance Indicators, Capital Improvement Program

40 **Capital Projects Execution Ratio** 35 FY-2015 Planned Milestones (All Projects) 30 FY-2015 Milestones Completed (All Projects) No. Of Milestones 25 20 15 10 5 0 Quarter 2 Quarter 3 Quarter 1 Quarter 4 Year to Date

Key performance indicators related to the Capital Improvement Program are shown below.

Note: Capital Projects Execution Ratio measures the completion of critical project milestones for large capital projects during the fiscal year. Critical project milestones include: Design Starts, Construction Starts and Construction Substantial Completions as well as Consent Decree and Permit mandated milestones.

For the 1st Quarter, five of the nine planned KPI milestones were met. The missed KPI milestones included the construction substantial completion milestones for the Biosolids Main Process Train (MPT), Biosolids Combined Heat and Power (CHP), Biosolids Final Dewatering Contract 1 and Biosolids Final Dewatering Contract 2. These missed milestones were due to the contractor not completing all items needed for final contract closeout. In addition, four KPIs planned for the second quarter were achieved in the first quarter. These were the design start milestone for Creekbed Sewer Rehab at Bingham Drive, the construction start milestone for Small Diameter Watermain Replacement 10b, the construction substantial completion milestone for the Nitrogen Removal Facilities.





Note: Water and Sewer Facility Plan KPIs measure the completion of critical project milestones for projects developed through either the Water or the Sewer Facility Plan. For variance, see note above.



Note: Biosolids Project Execution measures the completion of critical project milestones for the Biosolids projects during the fiscal year. For variance, see note above.



Note: LTCP Project Execution measures the completion of critical project milestones for the LTCP projects during the fiscal year. Critical project milestones include all those required to meet Consent Decree dates. For variance, see note above.



Note: Enhanced Nitrogen Removal Execution measures the completion of critical project milestones for the Enhanced Nitrogen Removal (ENR) projects during the fiscal year. For variance, see note above.

Page 6 of 9



Key Performance Indicators by category: Design Start, Construction Start and Construction Substantial Completion





Page 7 of 9



For FY15, the following KPI Milestones will be monitored:

Qtr.	Project	Job Name	KPI Name	KPI
1 .	XA 10			Achieved?
1 st	XA12	Biosolids Final Dewatering	Construction Substantial Completion	N
İst	XA08	Biosolids Main Process Train (MPT)	Construction Substantial Completion	N
İst	XAIO	Biosolids Combined Heat and Power (CHP)	Construction Substantial Completion	N
lst	XA12	Biosolids Final Dewatering	Construction Substantial Completion	N
1st	FY01	Interceptor	Design Start Milestone	Y
1st	FA06	Brentwood Reservoir Upgrade	Construction Start Milestone	Y
1st	FA04	Ft. Stanton Reservoir No. 1 Upgrade	Construction Start Milestone	Y
		Div D - JBAB Overflow and Diversion		
1st	FS01	Structures	Construction Start Milestone	Y
1st	IF02	Sanitary Sewer Rehab and Repair Phase 6	Design Start Milestone	Y
2nd	CY04	Div E - CSO 015-017 Structures/Diversions	Construction Substantial Completion	Y (1st Q)
2nd	E901	Nitrogen Removal Facilities - Contract 2	Permit Compliance	Y (1st Q)
		Div Z - Poplar Point Pumping Sta.		
2nd	CY21	Replacement	Construction Start Milestone	
2nd	DE01	Small Diameter Water Main Repl 12A	Design Start Milestone	
2nd	IL07	Creekbed Sewer Rehabilitation Bingham Drive	Design Start Milestone	Y (1st Q)
2nd	DS01	New Headquarters Building	Design Start Milestone	
2nd	O202	Small Dia Watermain Repl 10b	Construction Start Milestone	Y (1st Q)
3rd	F603	Steel Water Mains Contract 3	Design Start Milestone	
3rd	GA01	Small Local Sewer Rehab 4	Construction Start Milestone	
3rd	O001	Small Dia Watermain Rehab 8-1	Construction Substantial Completion	
3rd	BZ03	Large Valve Replacements 10	Construction Substantial Completion	
3rd	Q302	Pope Branch Stream Restoration	Construction Start Milestone	
3rd	G100	Lining & Repair of Local Sewers	Construction Start Milestone	
3rd	J306	National Arboretum Sewer Rehab	Construction Start Milestone	
4th	MA01	St. Elizabeth Water Tank	Construction Start Milestone	
4th	N712	Potomac Sewer - Odor Remedy (VA Sites)	Construction Substantial Completion	
4th	E901	Nitrogen Removal Facilities - Contract 2	Construction Substantial Completion	
4th	FA02	Ft. Reno Reservoir No. 1 Upgrade	Construction Substantial Completion	
		Discharge Piping Bryant Street Pump	^	
4th	FH01	Station	Construction Substantial Completion	
4th	O301	Small Dia Watermain Repl 11a	Construction Start Milestone	
4th	I802	Large Valve Replacements 12	Construction Start Milestone	
4th	I803	Large Valve Replacements 13	Construction Start Milestone	

Page 8 of 9


Capital Improvement Program Report 1st Quarter FY2015

Qtr.	Project	Job Name	KPI Name	KPI Achieved?
4th	FA03	Soldiers Home Reservoir Upgrade	Design Start Milestone	
4th	DE02	Small Diameter Water Main Repl 12B	Design Start Milestone	
4th	BP01	Grit Chamber Facilities Phase II	Design Start Milestone	
4th	BQ01	Primary Treatment Facilities Ph II	Design Start Milestone	