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 21, 2015
9:30 a.m.

I. Call to Order — Bo Menkiti, Acting Chairperson

9:30 a.m. II. AWTP Status Updates — Walt Bailey

1. BPAWTP Performance

9:40 a.m. III. Status Updates: Potomac Interceptor Sewer — Liliana Maldonado

1. Odor Abatement Project

9:50 a.m. IV. Action Items – Joint Use — Teresa Scott/Len Benson

1. IFB No. 140090, M. C. Dean, Inc
2. DCFA #469, C.C. Johnson & Malhotra, PC
3. DCFA #470, O'Brien & Gere Engineers, Inc.
4. IFB No. 140230, Ulliman Schutte Construction, LLC
5. Contract No. 15-PR-DWT-35, Polydyne, Inc.

Non-Joint Use

1. IFB No. 140160-G100, SAK Construction

10:00 a.m. V. Clean Rivers Quarterly Report — Carlton Ray

10:15 a.m. VI. CIP Quarterly Report — Liliana Maldonado

10:20 a.m. VII. Other Business/Emerging Issues

10:25 a.m. VIII. Executive Session*

10:30 a.m. IX. 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.

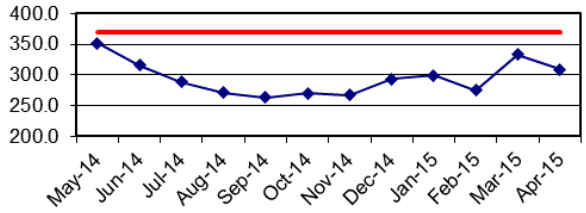
Follow-up Items from Prior Meetings:

1. None.

DEPARTMENT OF WASTEWATER TREATMENT
April 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 309 MGD. There was 7 MG of Excess Flow during this reporting period. The following Figures compare the plant performance with the corresponding NPDES permit

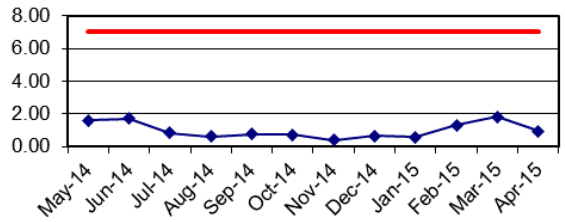
Plant Influent Flow (mgd)



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.

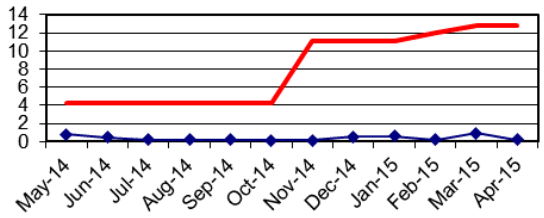
TSS (mg/l)



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

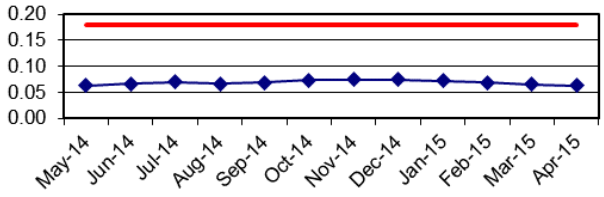
Ammonia (mg/l)



Effluent NH3 **Permit Limit**

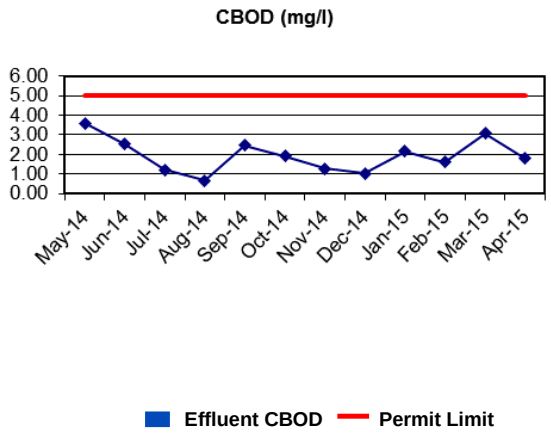
The Ammonia Nitrogen (NH3-N) is a measure of the nitrogen found in ammonia. For the month, effluent NH3-N concentration averaged 0.20 mg/L and is below the average 12.8 mg/L limit.

Total Phosphorus Annual Average (mg/l)

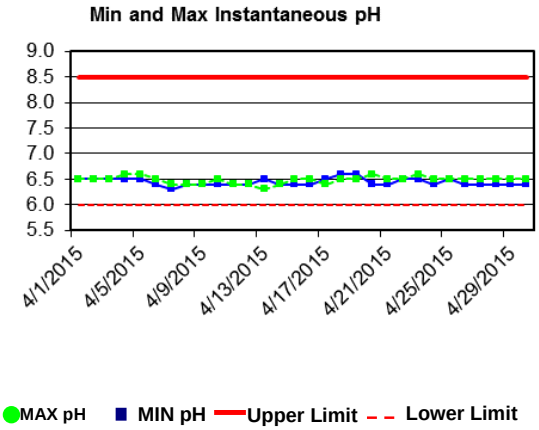


Effluent TP **Permit Limit**

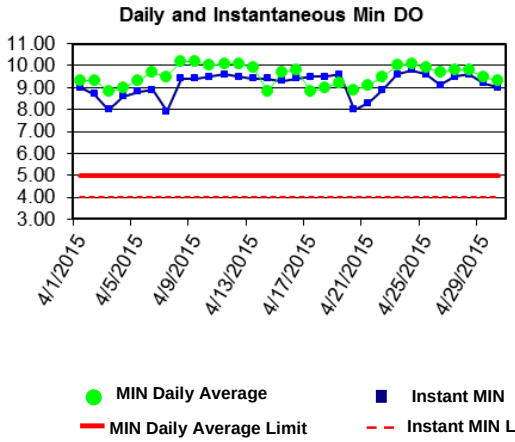
The Total Phosphorus (TP) is a measure of the particulate and dissolved phosphorus in the effluent. The annual average effluent TP concentration is 0.06 mg/L, which is below the 0.18 mg/L annual average limit.



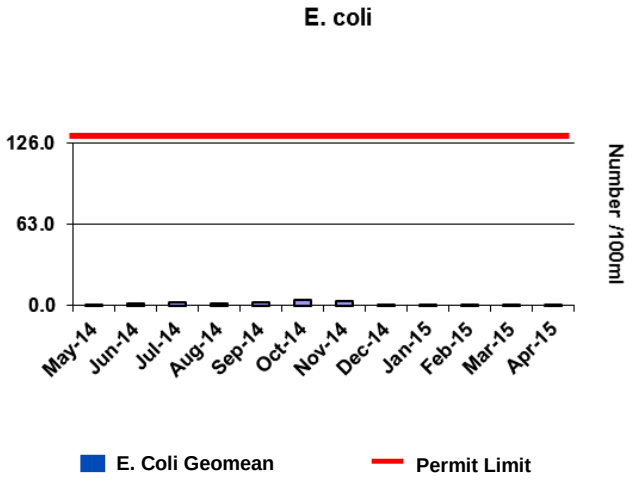
Carbonaceous Biochemical Oxygen Demand (CBOD) is a measure of the amount of dissolved oxygen required for the decomposition of organic materials. The effluent CBOD concentration averaged 1.80 mg/L (partial month) which is below the 5.0 mg/L limit.



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



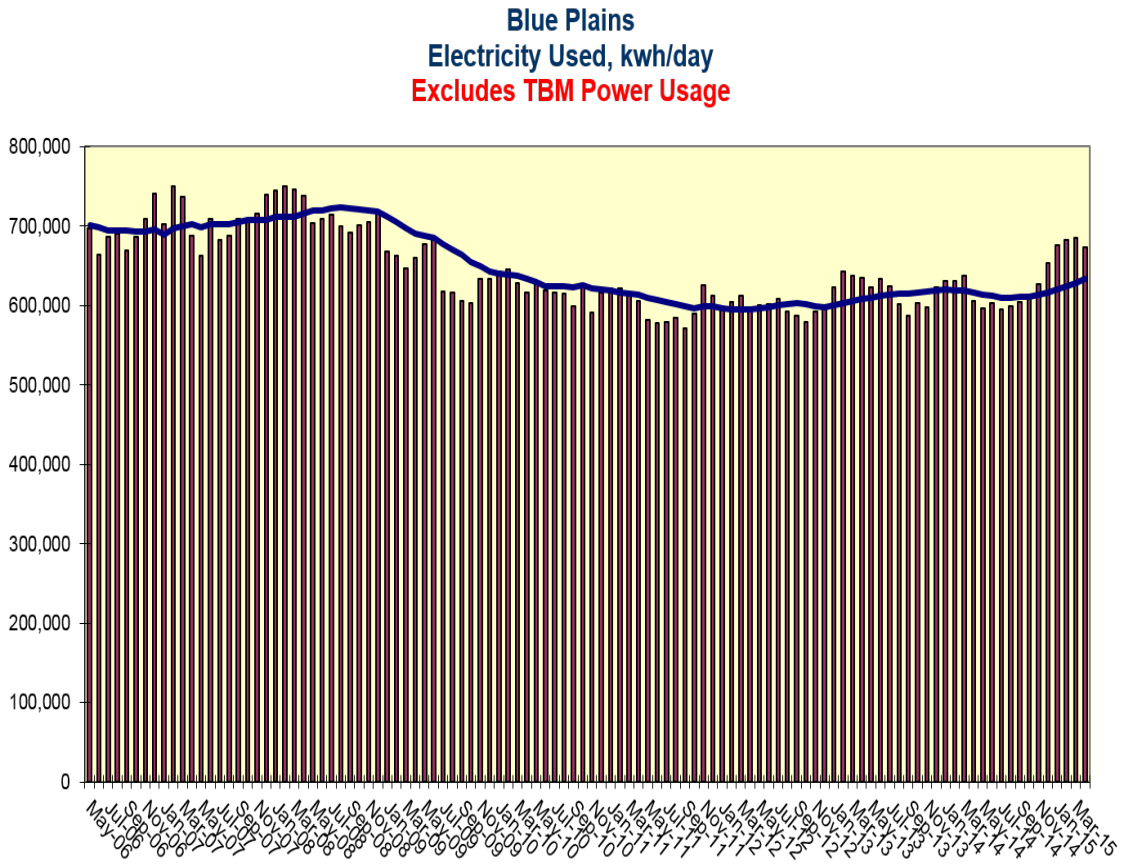
Dissolved Oxygen (DO) is a measure of the atmospheric oxygen dissolved in wastewater. The DO readings for the month are within the permit limits. The minimum daily average is 8.8 mg/L. The minimum instantaneous DO reading is 7.9 mg/L. The minimum permit limits are 5.0 mg/L and 4.0 mg/L respectively. The low instantaneous reading on March 9 was due to a planned full air outage for construction. This was completed without permit impact.

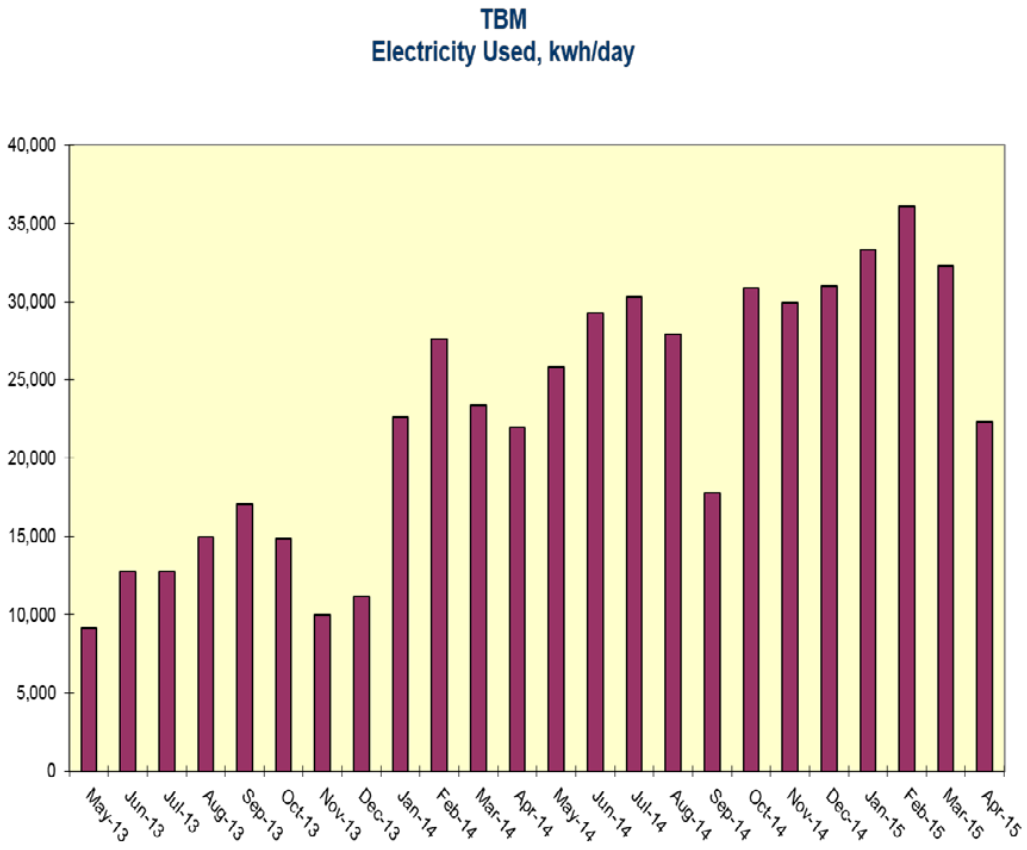


E.coli is an indicator of disease causing organisms (pathogens). The E.coli permit limit is 126/100mL. The E coli geometric mean is 1.0/100mL, and well below the permit limit.

BLUE PLAINS ELECTRICITY USAGE

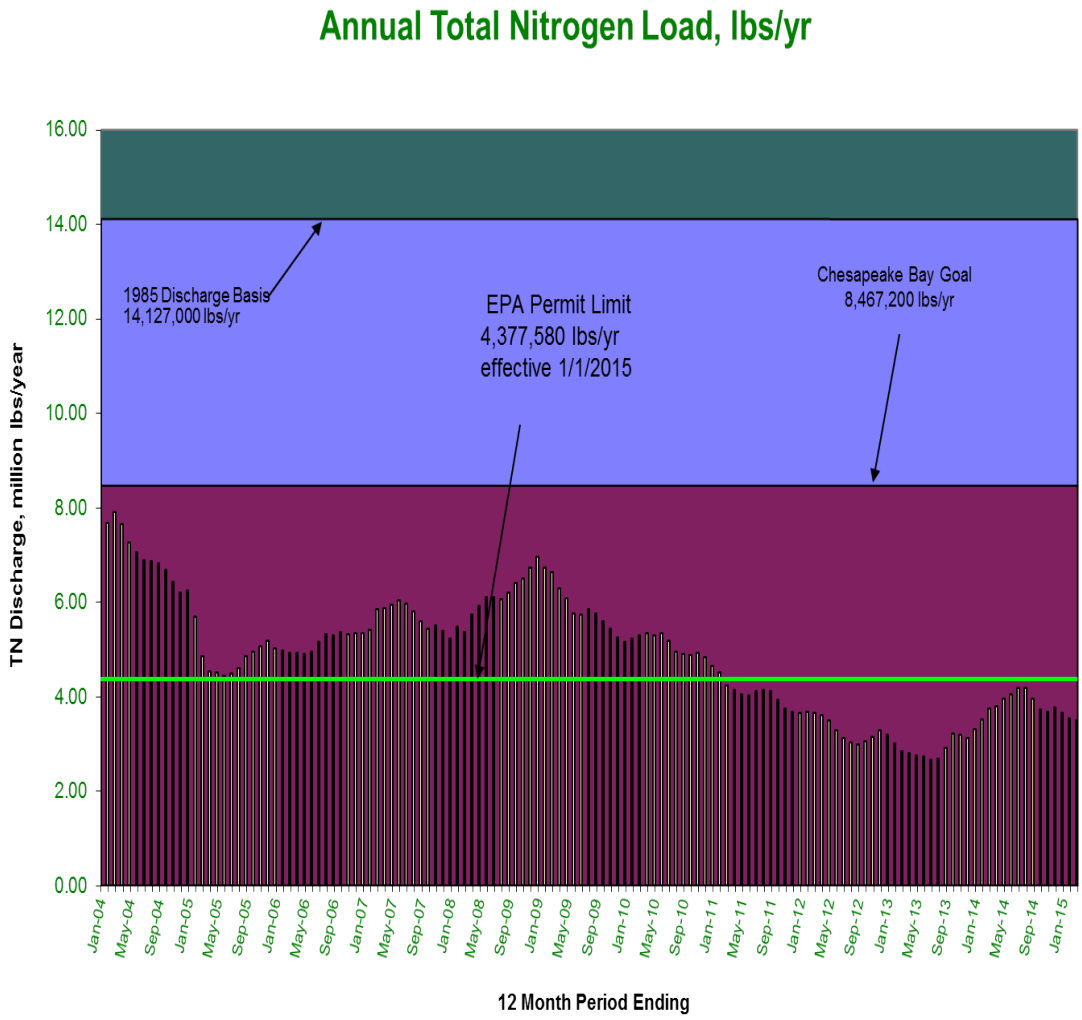
Blue Plains AWWTP has installed Power Monitors at critical points within the power distribution system to monitor power usage. The graph below is based on the installed power monitors and reflects usage at Blue Plains. As new processes are brought on line, the total plant power consumption has increased. This will start decreasing once CHP power is fed into the system.

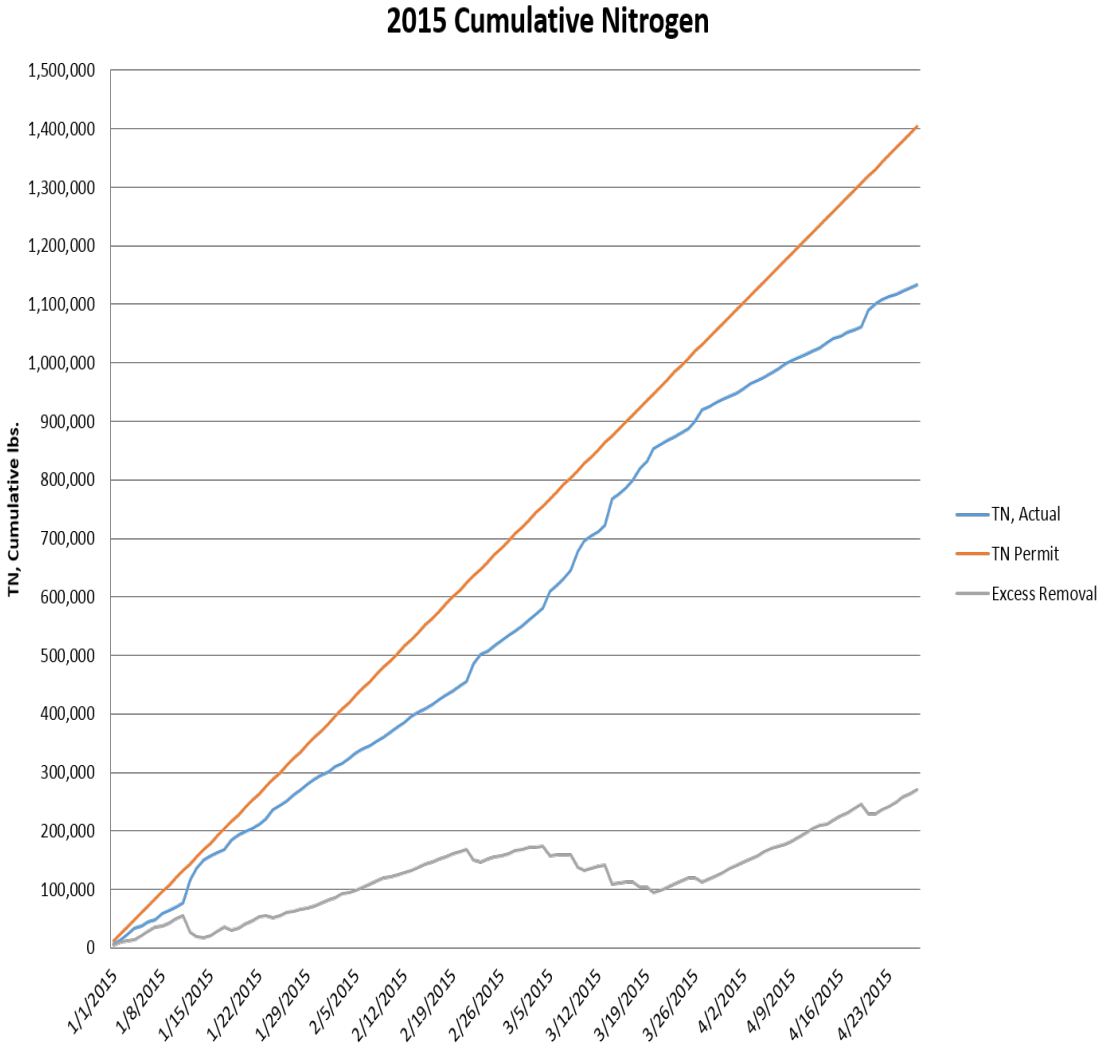



TBM
Electricity Used, kwh/day
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
May-13
Jun-13
Jul-13
Aug-13
Sep-13
Oct-13
Nov-13
Dec-13
Jan-14
Feb-14
Mar-14
Apr-14
May-14
Jun-14
Jul-14
Aug-14
Sep-14
Oct-14
Nov-14
Dec-14
Jan-15
Feb-15
Mar-15
Apr-15

BIOLOGICAL NUTRIENT REMOVAL PERFORMANCE

During the month the full-scale BNR process produced an effluent with average total nitrogen concentration of 2.57 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.




2015 Cumulative Nitrogen
TN, Cumulative lbs.
1,500,000
1,400,000
1,300,000
1,200,000
1,100,000
1,000,000
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
1/1/2015
1/8/2015
1/15/2015
1/22/2015
1/29/2015
2/5/2015
2/12/2015
2/19/2015
2/26/2015
3/5/2015
3/12/2015
3/19/2015
3/26/2015
4/2/2015
4/9/2015
4/16/2015
4/23/2015
TN, Actual
TN Permit
Excess Removal

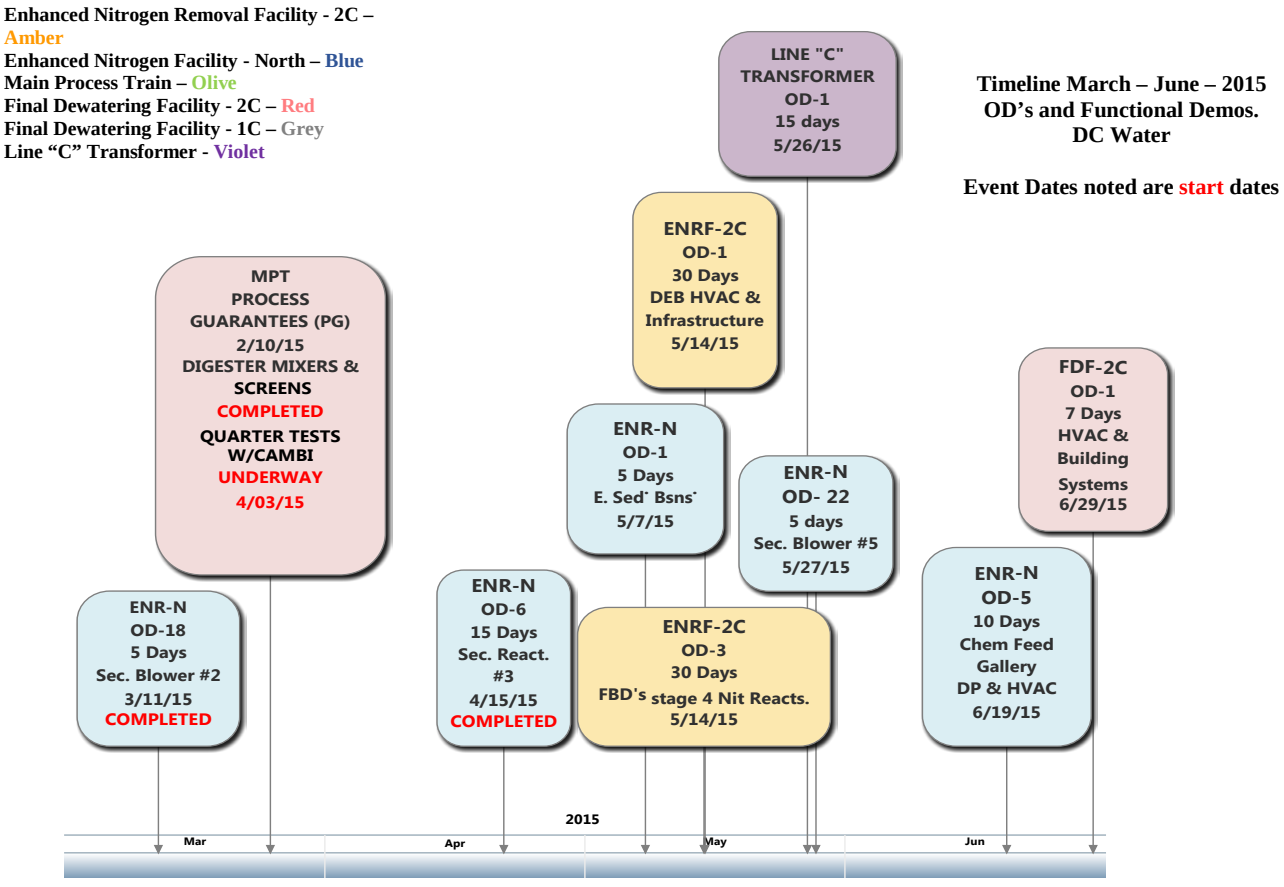
START-UP AND COMMISSIONING UPDATE

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:

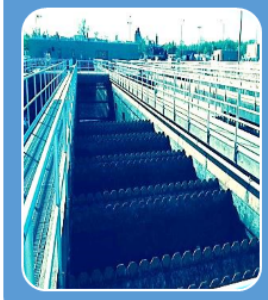
One part of the construction checkout process is called the Operational Demonstration (OD). The OD process provides a platform for the contractor and DC Water to prove out the newly constructed process under the various design conditions which can last from 5 days to 1 year. Following is the three month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



The Digested Sludge Dewatering Belt Filter Press Operational Demonstration for Final Dewatering Facility Second Contract is underway. Upon replacement of a belt, all sixteen belt filter presses have successfully completed the demonstration and the operational demonstration. The Operational Demonstration for the infrastructure (HVAC, plumbing, lighting, etc.) for the Final Dewatering Facility Second Contract's Final Dewatering Building started at the end of April. The Process Guarantee for digester mixing and screening for the Main Process Train Contract has also successfully completed its demonstration. Additional Operational Demonstrations that are underway

OPERATIONAL DEMONSTRATION: Secondary Reactor #3 ENR-N (OD 6)

- Reactor #3 was 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.
- A 15 day, 24 hour/day Operational Demonstration began on April 15th.
- Testing includes verifying the function of islolation gates, effluent weirs, aeration piping integrety, valves, flow meters, diffusers, disolved oxygen probes, and all associated instrumentation and electrical systems



OPERATIONAL DEMONSTRATION: East Sedimentation Basins ENR-N (OD 1)

- The sedimentation basins clarify the treated wastewater by separating out the biological matter and floating material from the treated wastewater through physical settling. Upgrades of the clarifiers ensures proper and improved separation of these two layers.
- This OD will demonstrate the performance of the new scum equipment (including pumps and grinders); sludge blanket level detectors; new and balanced effluent weirs; and infrasturture work which supports the new equipment. This OD started April 30th.

or starting include:

PROCESS GUARENTEE:
MPT CAMBI QUARTER TEST

This Process Guarantee requires 112.5 dry tons per day of sludge cake at a sludge concentration of at least 16.5% solids can be properly processed through ¼ of the CAMBI process and subsequent digestion for continuous 14 day period. This guarantee will be verified using

installed, calibrated flow meters and composite sampling of the feed to and product from the CAMBI unit.

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.

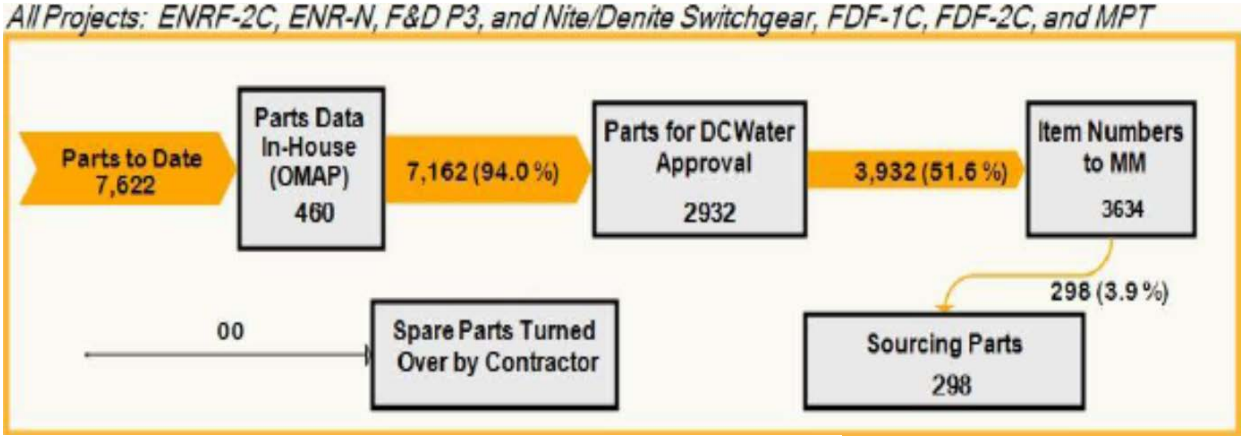
Training completed from March 13, 2015 – April 27, 2015:

- 3,872 hours of vendor training were completed by DC Water personnel.
- 252 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 April 2015 include:

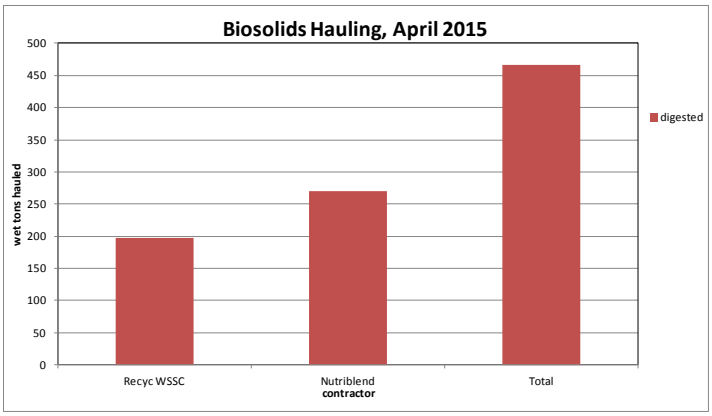
- Asset attributes based on approved service manuals continue to be logged into the Maximo maintenance program,
- Working with Materials Management (MM) to identify vendors for critical spare parts.
- Parts work flow is as follows:



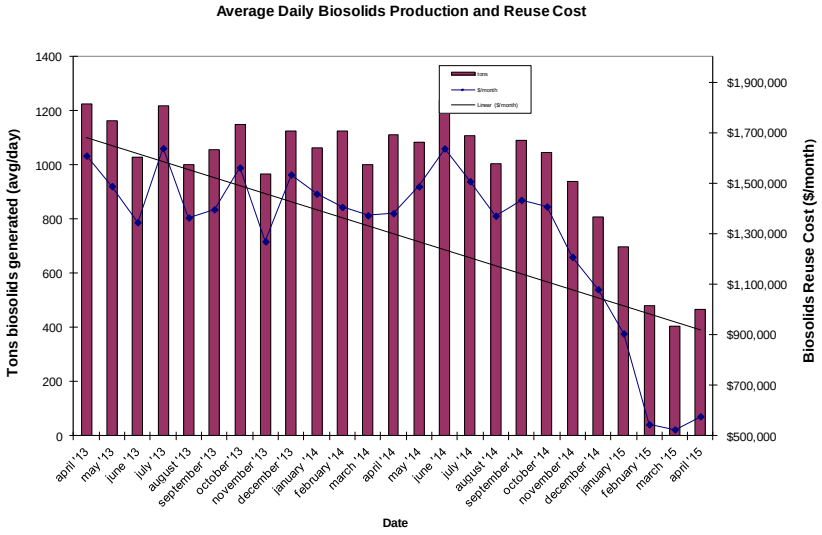
Project Acronym Key:
ENRF-2C: Enhanced Nitrogen Removal Facility 2nd Contract
ENR-N: Enhanced Nitrogen Removal – North
F&D P3: Filtration and Disinfection Electrical Upgrades Phase 3
Nite/Denite Switchgear: Nitrification/Denitrification Electrical Upgrades
FDF-1C: Final Dewatering Facility 1st Contract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

BLUE PLAINS RESOURCE RECOVERY REPORT

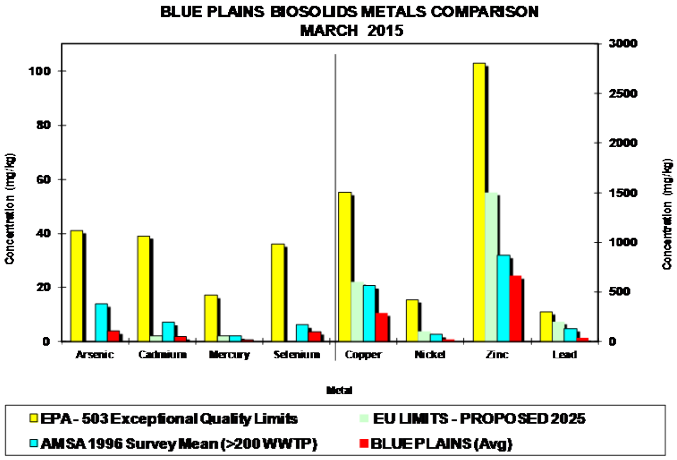
In April, biosolids hauling averaged 467 wet tons per day (wtpd). Of this total, 0 wtpd were lime stabilized Class B, and 467 wtpd (100%) were digested. This is the first month we produced 100% digested biosolids. The graph below shows the total hauling by contractor for the month of April. The average percent solids for the digested material was 31.3%. At the end of April the Cumberland County storage pad had approximately 6,000 tons (~25,000 tons capacity), Cedarville lagoon had approximately 6,000 tons of Blue Plains biosolids (~30,000 tons capacity), and Fauquier lagoon had 5000 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 $3.10/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost in April for the two contracts (DC Water and WSSC) was $41.20/wet ton. For comparison, in April 2014 the average diesel price was $4.17/gal and the average contract cost was $44.25/wet ton.

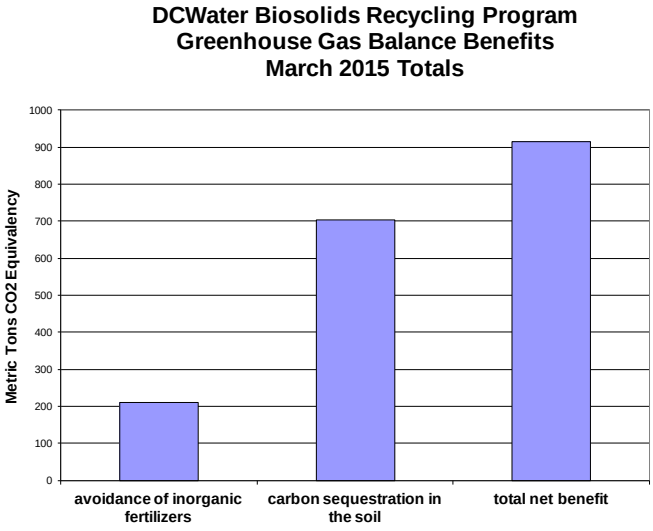


The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of March 2015. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (EU) limits. The EU limits are more conservative than the USEPA limits, and Blue Plains biosolids metals content is lower than the EU standards as well.



Environmental Benefits

The quantity land applied in March coming directly from the plant and from storage facilities equaled 13,748 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 915 metric tons CO_2 equivalent avoided emissions. This is equivalent to taking 1,863,707 car miles off the road in the month of March (assumes 20 mpg, 19.4 lb CO_2 equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since December, 2006 is 139,932 metric tons CO_2 equivalent.



April Highlights

Staff made several presentations this month on the digesters and plans for future use of the solids. Laying out the history of the program and the steady improvements in product quality and community acceptance, along with the value of the biosolids asset staff showed a progression toward a market for blended soil product, made from the Class A biosolids and locally available blending feedstocks. What once was a $19M per year operational cost to recycle the biosolids asset and give it away free to farmers has been cut in half by the conversion of organic matter in the digesters to methane for power generation. Plans and mixing trials are underway to determine the best mixes for different uses, including a mix for the Clean Rivers green infrastructure projects. Staff made presentations at the annual Virginia Water Environment Association conference in Richmond, and George Washington University School of Law, and for visitors from Kent County Delaware.

Staff coordinated an informational meeting with an urban bee advocate to disseminate information about placing beneficial bees at Blue Plains. While this may seem a stretch from the core mission, it supports our efforts to engage the urban agriculture community quite nicely. While the benefits of bees in urban areas is quite well understood, and the need for increased pollinator population is clear, DC Water will also benefit by growing closer to urban gardeners, with whom we are working closely to reintroduce biosolids based products into DC. For the past two years staff has donated hundreds of tons of biosolids compost to community gardens, sister agencies, and non-profits in the service area in anticipation of having a Class A blended biosolids product available after the digesters start up and local agencies certify the process. Part of this effort is understanding the needs of these communities, one of which is a healthy population of pollinators. This spring, staff will host a beekeeper who will house hives on the roof of the CMF building. Staff worked with Safety, Risk Management, the GM's office, and the Office of the General Counsel (among others) in determining that this is a good fit. Bees arrive in month May.

WHY BRING HONEY BEES TO BLUE PLAINS?

Pollination is essential to the environment. Pollinators—such as honey bees—are among the first to suffer from pollution, loss of green space, climate change, and new pests and pathogens. Blue Plains is located in a space with many benefits for honey bees, and the structures on site can provide safe locations for hives. DC Water is trying to support the urban agriculture community in this area—potential users of our biosolids products.

How will this program work?

This project will start under the management of the DC Beekeepers Alliance. We will begin this year, with one site housing four hives composed of two previously established colonies. DC Water will seek employees to volunteer to help maintain the hive, and if there is interest, provide 12 hours of instruction. The DC Beekeepers Alliance will continually provide technical support, mentoring and education to DC Water to grow this project. Depending on its success, DC Water may expand the project to other buildings next spring.

...continued on back

dc water is life®

Is there an increased risk of being stung?

No. At Blue Plains, the flowers honey bees will be attracted to are located at the river's edge, and in trees overhead. The hives at Blue Plains will start to be constructed in overhead locations; therefore, contact between staff and honey bees will not be likely. People are three times more likely to be stung by wasps, hornets, and yellow jackets, which already have a presence at Blue Plains. If you believe you have an allergy, consult with your physician.

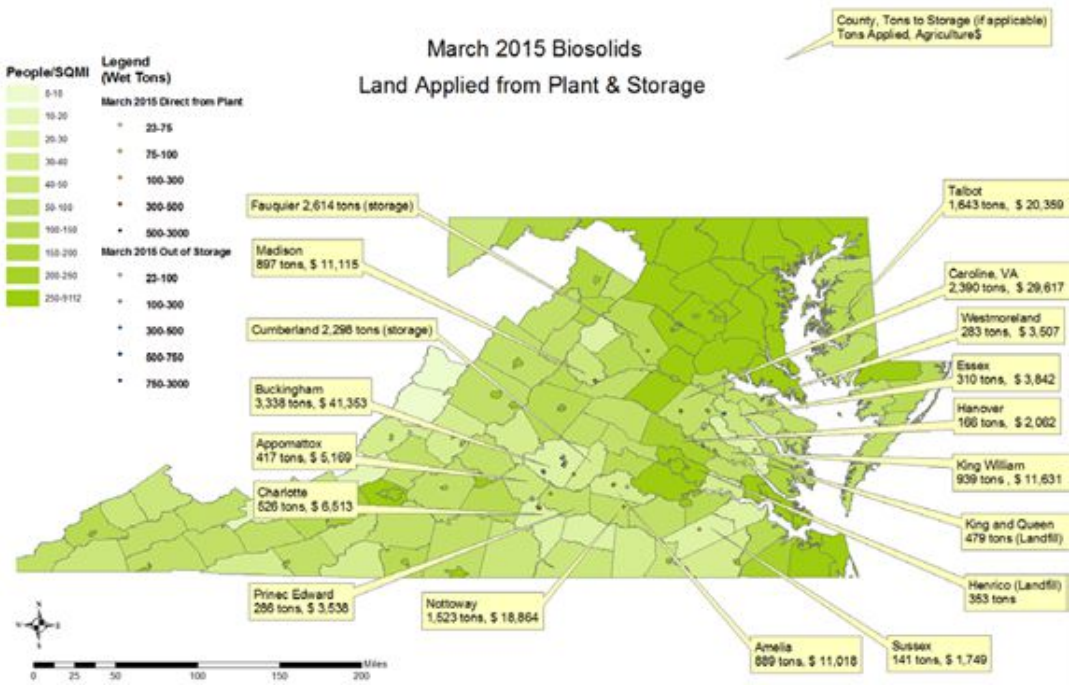
Is Blue Plains safe for bees?

Industrial sites such as Blue Plains are great for honey bees! Situated between a waterway to the west, and a wooded ridge on the east, Blue Plains offers fresh water and a variety of plant and tree species to provide food. Honey bees are generalists, but their diets primarily depend on flowering Tulip Poplar and Black Locust – two species that are plentiful in nearby woods.

Will the bees produce honey?

The project will produce a relatively small harvest of honey (potentially 50-75 pounds) the first year, but should triple that in 2016. We plan on a site honey harvest sometime this summer and employees will be invited to participate.

Map of Blue Plains Biosolids Applications and Agricultural $'s for March 2015



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 in March:

- **March 6th – New Clean Water Quality and Technology Director:** The Clean Water Quality and Technology has a new director Ms. Christine DeBarbadillo who was promoted from her previous position as Process Engineer II at the department of wastewater treatment (DWT). Ms. DeBarbadillo is a senior process engineer with significant experience in nutrient removal and solids handling process design and operation. She will be managing the research and development, pretreatment and main laboratory in DWT and reporting directly to Mr. Walter Bailey, assistant general manager.

- **March 9th – New program manager research and development:** The research and development added a new member to its team Dr. Haydee De Clippeleir to serve as program manager. Dr. De Clippeleir is an expert in the field of anammox type technologies for both mainstream and sidestream applications. She will be assisting the R&D in managing and directing the research associates working at Blue Plains advanced wastewater treatment plant.

- **March 12th – The district of Columbia Public Schools Kitchen Food Waste Study:** The R&D department is evaluating treating kitchen food waste from public schools in the district of Columbia using the anaerobic digestion process to produce methane gas. A team from the R&D department conducted a site visit to Powell Elementary School in DC to witness the lunch break operation to plan for collecting the kitchen waste.

- **March 20th – New Virginia Tech professor visits Blue Plains Advanced Wastewater Treatment Plant**: Assistant professor Dr. Zhiwu (Drew) Wang recently joined the civil and environmental engineering department at Virginia Tech. DC Water and VT has a long history of research collaboration. Dr. Wang introduction to DC Water was initiated through a visit to Blue Plains AWTP to meet with key individuals at the department of wastewater treatment and to visit the research facilities at the plant. Dr. Wang was accompanied by Dr. John Novak and Dr. Glen Moglen (Director of the Occoquan Watershed Monitoring Laboratory). Dr. Wang is interested in water/wastewater treatment, nutrient removal/recovery, anaerobic digestion, biofilm reactors, bioprocess modeling, and the bioconversion of waste into bioenergy and bioproducts. The VT group met with the assistant general manager Mr. Walter Bailey and toured the research facilities where they discussed current research activities with the R&D team.

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.

Industrial 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.

Industrial Pretreatment Program

DC Water currently manages fifteen (15) Significant Industrial User (SIU) permits and sixteen (16) Non-Significant Industrial User (NSIU) permits. DC Water received a permit application from Providence Hospital (currently a non-permitted NSIU) this month and is coordinating a site visit to finalize issuance of a NSIU wastewater discharge permit. DC Water also received a Permit Appeal Form to request a change in permit status from an NSIU to a SIU for the District Apartments Realty (groundwater treatment) permit due to consistent flow readings greater than 25,000 gallons per day.

Inspection and compliance monitoring was conducted at one SIU this month: the Capitol Power Plant. One Notice of Violation was issued this month to a SIU, the GSA Central Heating and Refrigeration Plant (CHRP), for a pH violation. Continuous pH monitoring conducted at the GSA CHRP resulted in a pH violation on February 4, 2015, where the pH dropped below 5.0 for 5 minutes. A Notice of Violation (NOV) was issued on March 27, 2015, requiring a corrective action plan. All SIUs and permitted NSIUs are currently in compliance with discharge standards.

The annual pretreatment program report was submitted to EPA this month.

DC Water currently manages 71 Temporary Discharge Authorization (TDA) permits, primarily for construction site discharges of groundwater and/or surface runoff in the combined sewer area. Nine new TDA permits were issued this month. All TDA discharges are currently in compliance with pretreatment standards.

Hauled Waste Program

The hauled waste program currently has eighteen (18) 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, Five Star Portables, was renewed this month and one previously permitted hauler, Department of Health, was renewed again. DC Water collected fees from seven waste haulers this month, including those on a monthly payment plan option.

DC Water received 500 hauled waste loads (1,585,130 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, including one grease trap load. One waste hauler, Stillwater Septic, had a grease trap load with a pH of 4.49, which is in violation of discharge standards (pH must be 5-10), and a petroleum oil and grease concentration of 1,480 mg/L, which is in violation of the petroleum oil and grease limit of 100 mg/L. A Notice of Violation was issued on April 10, 2015.

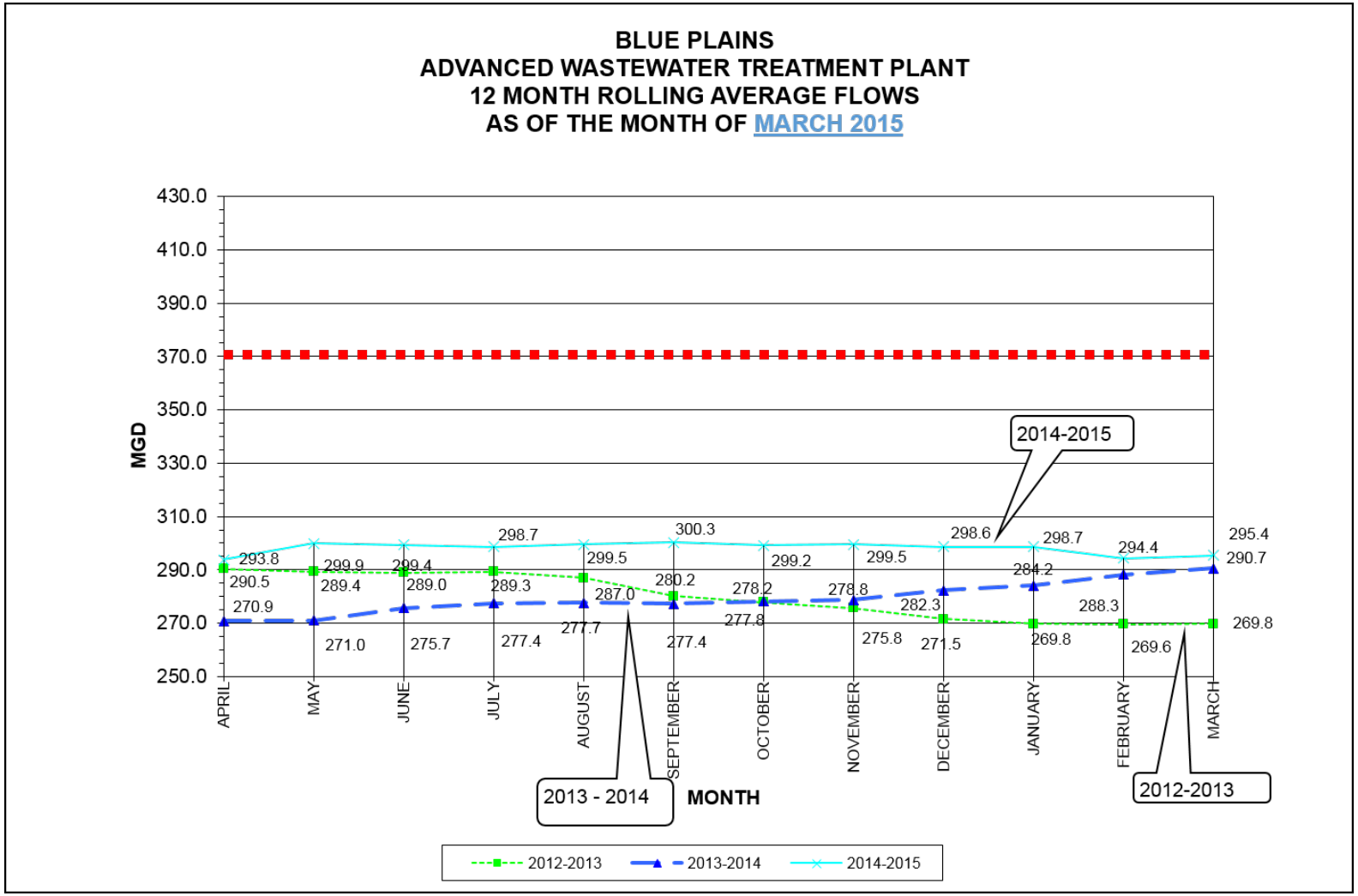
NPDES Permit Sampling

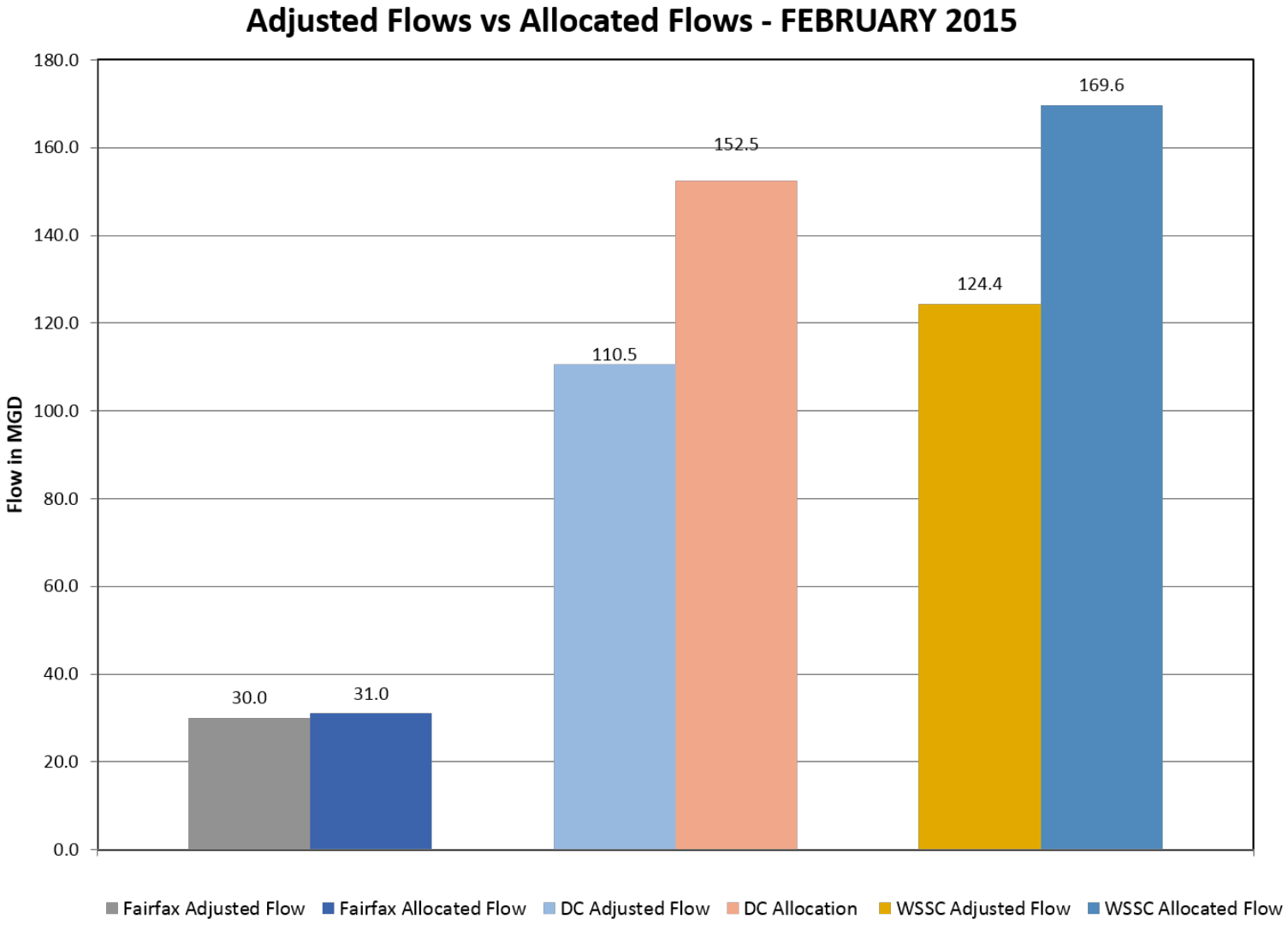
Pretreatment staff collected quarterly influent, effluent (outfall 002), and biosolids samples for local limit parameters, including low-level influent mercury using clean sampling techniques. The bimonthly metals, including low level mercury, were also collected at outfall 002 this month. Staff collected one dry weather 24-hour composite sample at outfall 002 for low level PCB analysis using EPA Method 1668 this month.

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 from the new **Cambi Thermal Hydrolysis Digestion facility,** including Total and Volatile Solids, Total and Volatile Suspended Solids, Ammonia Nitrogen, and pH.

.


BLUE PLAINS
ADVANCED WASTEWATER TREATMENT PLANT
12 MONTH ROLLING AVERAGE FLOWS
AS OF THE MONTH OF MARCH 2015
MGD
430.0
410.0
390.0
370.0
350.0
330.0
310.0
290.0
270.0
250.0
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH
MONTH
2014-2015
2013 - 2014
2012-2013
293.8
299.9
299.4
298.7
299.5
300.3
299.2
299.5
298.6
298.7
294.4
295.4
290.5
289.4
289.0
289.3
287.0
280.2
278.2
278.8
282.3
284.2
288.3
290.7
270.9
271.0
275.7
277.4
277.7
277.4
277.8
275.8
271.5
269.8
269.6
269.8
2012-2013
2013-2014
2014-2015


Adjusted Flows vs Allocated Flows - FEBRUARY 2015
Flow in MGD
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
30.0
31.0
110.5
152.5
124.4
169.6
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 April 2015

Project Description: 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 and nearing completion.

DC Site (Site 1995)

Facility is running.

Maryland Sites

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

Site 17 (Beltway) – Facility is running.

Site 27 (Old Angler's Inn) – Construction is substantially complete but the facility has not run consistently due to odor complaints on 4/2, 4/10 and 4/30. While the counteractant neutralizes the odor, it is not pleasing to the OAI. Exhaust stack modifications will be pushed to May 2015 in order to address health and safety requirements during installation. The system will be run and monitored upon installation to observe the impacts of the stack modification. Daily observations for odor will continue to be conducted along the interceptor and noted on observation forms.

Virginia Sites

Site 31 (Fairfax) – Under Construction, progressed from 87% to 90% complete. Mechanical and electrical installations are ongoing inside the building. Exterior stone work is ongoing. Manual checkout and startup began March, 17, 2015. Full auto-mode operational demonstration test start date is projected by early July based on planned delivery and installation dates for the air handling unit.

Site 46 (Loudoun) – Under Construction, 98% complete. Interior building work is ongoing for punch list work items. The full auto-mode operational demonstration test started on March 31, 2015. The 15 day test was restarted due to SCADA communications issues. The restarted 15 day test was completed on May 6, 2015.

Design & Construction Activities	Projected		Actual		Status
	Start	End	Start	End	
Place in operation, Site 31 (Fairfax)	7/06/15				Delay in delivery of motor starter for air handling unit is dictating the schedule.
Place in operation, Site 46 (Loudoun)	4/01/15	4/15/15	3/31/15	5/6/15	15 day test complete.

Potomac Interceptor Sewage Characterization and DC Water's Initiatives

Sewage Characterization of the PI

Complaints regarding odors were received from a business establishment right across the ground from Site 27 Odor Control Facility in the Spring and Summer of 2013. DC Water collected samples on July 9 and 24, 2013 at sites 17 and 27 to assess the situation as these are the two closest facilities.

Gas samples were taken before and after the carbon vessels at the two facilities to determine the concentration coming into and out of the facility and to determine if the objective of removing the odorous compounds as being met.

The sample results, refer Table 1, have shown that the primary compounds, hydrogen sulfide (H2S) and methyl mercaptan, are being removed effectively at more than 87% removal. The odor thresholds from USEPA manual are significantly lower than the outlet concentrations for dimethyl sulfide (DMS). The low threshold levels indicate that the human nose is especially sensitive to DMS.

Table.1- Gas Sample Results at Sites 17 and 27 (Collected on 7/9/13)

Compound	Inlet conc. *		Outlet conc.*		% Removal		Odor Threshold*+	
	Site 17	Site 27	Site 17	Site 27	Site 17	Site 27	Site 17	Site 27
Hydrogen sulfide	240	340	12	4.3	95	98	0.47	0.47
Carbonyl sulfide	10	-	8.3	12	17		55	55
Methyl mercaptan	79	57	-	7.4	99	87	1.1	1.1
Dimethyl sulfide	32	32	40	53	(25)	(65)	.1	.1
Carbon disulfide	5.6	-	7.2-	5.3			210	210
Tert-Butyl mercaptan	-	-	-	-			NA	NA
Dimethyl disulfide	-	-	6.9	6.9			2.2	2.2

*All results in ppbv (parts per billion by volume) () indicates higher concentration in outlet than inlet +1985 USEPA Odor Control Manual

Upon the discovery of dimethyl sulfide in the gas phase, liquid phase sampling was performed at various locations along the Potomac Interceptor to better characterize the sewage and determine a potential source. Sewage samples were collected on 9/13/13, 9/16/13 and 11/7/13 at 14 locations along the PI and at branch sewers just before they connect with the main sewer. Samples were analyzed for semi-volatiles (like methane), dimethyl sulfoxide (DMSO), reduced sulfur compounds, organic acids, and amines.

Results indicate that all samples contain hydrogen sulfide (H2S), methyl mercaptan (MM) and dimethyl sulfide (DMS) with hydrogen sulfide having the highest concentrations often 1-2

orders of magnitude times the other reduced sulfur compounds. Additionally, only two samples had detectable levels of dimethyl disulfide (DMDS).

Carbon Pilot Program

The above tests conducted in the fall of 2013 show that sources of odor are H2S and other reduced sulfur compounds and they are prevalent throughout the system. Prior analyses show that the Odor Control Facilities have significantly reduced sulfur compounds except DMS.

The pilot program was initiated to evaluate different carbons' ability to remove DMS. Site 1995 (Fletcher's Boat house) was selected to do the pilot because this was one of the operating facilities with capacity for conducting the pilot.

Gas samples were obtained pre- and post carbon drum. These carbons were coconut carbon, Centaur, Minotaur and Hydrosil mixes. They were tested for their ability to remove DMS from the gas stream. Each test had a duration of approximately three weeks. Only Hydrosil mixes, a permanganate impregnated zeolite, was able to produce non-detectable levels of DMS in the gas phase.

Other initiatives

- On 12/19/13 Odor Panels were conducted to determine the combination of counteractant/ sewer gas that was most pleasing to a panel of human odor testers. This served as the basis of selection of the counteractant to pilot at Site 27.
- A stack insert will be installed on Site 27 discharge to increase the exhaust velocity, pushing the flow to a higher elevation increasing the dilution factor through air dispersion. Model results indicate that this may assist in reducing the odor impact of DMS to surrounding receptors.

Discussions and data indicate that nuisance levels of DMS have been experienced from other sewer system operators around the country and internationally. The levels that have been experienced are at similar and significantly higher in concentration than that being seen in the Potomac Interceptor. The City of Philadelphia North East WPCP experienced DMS levels of 10 ppb to 200 ppb in the liquid phase. This was due to an industrial discharger releasing DMSO, a solvent, into the system. Wastewater facilities in the Orange County Sanitation District, Edwards, CO, Guangzhou, China and a South Florida facility have experienced challenges in removing DMS by their gas treatment systems.

A determination as to whether the DMS issue exists throughout the DC Water system is unknown, as samples have been taken for reduced sulfur compounds only along the Potomac Interceptor.

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

ACTION REQUESTED

ENGINEERING SERVICES:

Supervisory Control and Data Acquisition Systems (SCADA) Integrator Services Joint Use

Approval to execute an engineering and construction services contract not to exceed $2,664,719.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
M.C. Dean, Inc. 22980 Indian Creek Drive Dulles, Virginia 20166	Sigma Associates, Inc. Washington, DC	MBE	28%
	Symmetra Design, Inc. Washington, DC	WBE	4%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	$ 2,664,719.00
Contract Time:	1,095 Days (3 Years, 0 Months)
Anticipated Contract Start Date:	07-15-2015
Anticipated Contract Completion Date:	07-14-2018

Other firms submitting proposals/qualification statements:

Optimum Controls*
Emerge Systems*
Kruse Controls
Callisto Integration, Inc.

* Asterisk indicates short listed firms.

Purpose of the Contract:

To provide SCADA Integration Services to expand the monitoring of the remote facilities by incorporating additional information into the SCADA System.

Contract Scope:

- Documentation and Signal Verification
- Hardware and Software Modifications
- UPS Upgrades
- Graphic and Database Improvements
- Other Instruments and Controls related work as recommended in the SCADA Master Plan Report.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	**Award Based On:**	Best Value
Commodity:	Engineering and Construction	**Contract Number:**	140090
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	**Department:**	Engineering and Technical Services
Service Area:	Water, Sanitary and Stormwater	**Department Head:**	Liliana Maldonado
Project:	LT, MC, GZ		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100%	$2,664,719.00
Federal Funds	0.00%	$ 0.00
Washington Suburban Sanitary Commission	0.00%	$ 0.00
Fairfax County	0.00%	$ 0.00
Loudoun County & Potomac Interceptor	0.00%	$ 0.00
Total Estimated Dollar Amount	**100.00%**	**$ 2,664,719.00**

Work under this contract will be assigned as needed under specific task orders. Current plan is to assign work as shown above. However, it is anticipated that Joint Use work maybe assigned over the three year contract period. It is anticipated that, as tasks are developed for work associated with specific facilities and costs are developed, the individual Users will be notified and billed according to agreed cost sharing.

5/7/2015
Gail Alexander-Reeves / Date
Director of Budget

5/15/15
Dan Bae / Date
Director of Procurement

5-13-15
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

ENGINEERING SERVICES:

Basic Ordering Agreement –Infrastructure XV (Joint Use)

Approval to execute an architectural and engineering services contract for $6,000,000.00

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
C. C. Johnson & Malhotra, PC 1025 Connecticut Ave., N.W. Suite 1017 Washington, DC 20036	Capital Development Design, Inc Beltsville, MD	MBE	6.0%
	CenKen Group, LLC Beltsville, MD	MBE	5.0%
	Environ-Civil Engineering Ltd. Columbia, MD	MBE	6.0%
	National Reprographics, Inc. Washington, DC	WBE	4.0%
	Peer Consulting P.C. Washington. DC	MBE	6.0%
	Phoenix Engineering, Inc. Cockeysville, MD	MBE	5.0%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	$ 6,000,000.00
Contract Time:	1,461 Days (4 Years, 0 Months)
Anticipated Contract Start Date:	07-15-2015
Anticipated Contract Completion Date:	07-14-2019

Other firms submitting proposals/qualification statements:

* Greeley and Hansen, LLC	Delon Hampton & Associates, Chtd.
* Louis Berger Water Services, Inc.	EBA/Pennoni Joint Venture
* O'Brien & Gere Engineers, Inc.	Hazen and Sawyer, PC
* Parsons Brinckerhoff	Johnson, Mirmiran & Thompson, Inc.
* Whitman, Requardt & Assoc., LLP	Prime AE Group, Inc.
Bohler Engineering	Rummel, Klepper & Kahl, LLP
Brown & Caldwell, PC	Setty & Associates, Ltd.
Chester Engineers, Inc.	Stantec, Inc.
Michael Baker International, LLC	

* Asterisk indicates short listed firms.

Purpose of the Contract:

The agreement will provide professional engineering design and related services for water and sewer infrastructure and facilities.

Contract Scope:

- Projects will include rehabilitation and replacement of water and sewer pipes, upgrades of water and sewer pumping stations and storage facilities. Services are anticipated to include work in the architectural, civil, structural, mechanical process, HVAC, instrumentation and electrical design disciplines and other related services. Related services include but are not limited to preparation of contract documents, engineering surveys, geotechnical investigations, environmental assessments and permit assistance.

contract documents, engineering surveys, geotechnical investigations, environmental assessments and permit assistance.

- Projects will be in the water distribution and sewer collection systems as well as pumping station and water storage facilities.

PROCUREMENT INFORMATION

Contract Type:	Lump Sum and Cost Plus Fixed Fee	**Award Based On:**	Highest Ranking Score
Commodity:	Engineering Design Services	**Contract Number:**	DCFA #469-WSA
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	**Department:**	Engineering and Technical Services
Service Area:	Water, Sanitary & Stormwater	**Department Head:**	Liliana Maldonado
Project:	FZ, C9, FT, MQ		

ESTIMATED USER SHARE INFORMATION

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

Work under this contract will be assigned as needed under specific task orders. Current plan is to assign work as shown above. However, it is anticipated that Joint Use work maybe assigned over the four year contract period. It is anticipated that, as tasks are developed for work associated with specific facilities and costs are developed, the individual Users will be notified and billed according to agreed cost sharing.

5/7/2015
Gail Alexander-Reeves / Date
Director of Budget

5/15/15
Dan Bae / Date
Director of Procurement

5/13/15
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

ENGINEERING SERVICES:

Basic Ordering Agreement –Infrastructure XVI (Joint Use)

Approval to execute an architectural and engineering services contract for $6,000,000.00

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
O'Brien & Gere Engineers, Inc. 4201 Mitchellville Rd. Suite 500 Bowie, MD 20716	Bryant Associates, PC Landover, MD	MBE	10.0%
	TL Brown Assoc., PC / Soil & Land Use Technology, Inc. Glen Burnie, MD	MBE	5.0%
	Milhouse Engineering & Const., Inc. Washington, DC	MBE	5.0%
	Sheladia Associates, Inc. Rockville, MD	MBE	8.0%
	Precision Measurements, Inc. Chantilly, VA	WBE	2.0%
	Phoenix Engineering, Inc. Hunt Valley, MD	WBE	1.0%
	DP Consultants, Inc. Washington, DC	WBE	1.0%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	$ 6,000,000.00
Contract Time:	1,461 Days (4 Years, 0 Months)
Anticipated Contract Start Date:	07-15-2015
Anticipated Contract Completion Date:	07-14-2019

Other firms submitting proposals/qualification statements:

* Greeley and Hansen, LLC
* Louis Berger Water Services, Inc.
* C.C. Johnson & Malhotra, PC
* Parsons Brinckerhoff
* Whitman, Requardt & Assoc., LLP
Bohler Engineering
Brown & Caldwell, PC
Chester Engineers, Inc.
Michael Baker International, LLC
Delon Hampton & Associates, Chtd.
EBA/Pennoni Joint Venture
Hazen and Sawyer, PC
Johnson, Mirmiran & Thompson, Inc.
Prime AE Group, Inc.
Rummel, Klepper & Kahl, LLP
Setty & Associates, Ltd.
Stantec, Inc.

* Asterisk indicates short listed firms.

Purpose of the Contract:

The agreement will provide professional engineering design and related services for water and sewer infrastructure and facilities.

Contract Scope:

- Projects will include rehabilitation and replacement of water and sewer pipes, upgrades of water and sewer pumping stations and storage facilities. Services are anticipated to include work in the architectural, civil, structural, mechanical process, HVAC, instrumentation and electrical design disciplines and other related services. Related services include but are not limited to preparation of contract documents, engineering surveys, geotechnical investigations, environmental assessments and permit assistance.
- Projects will be in the water distribution and sewer collection systems as well as pumping station and water storage facilities.

PROCUREMENT INFORMATION

Contract Type:	Lump Sum and Cost Plus Fixed Fee	**Award Based On:**	Highest Ranking Score
Commodity:	Engineering Design Services	**Contract Number:**	DCFA #470 - WSA
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	**Department:**	Engineering and Technical Services
Service Area:	Water, Sanitary & Stormwater	**Department Head:**	Liliana Maldonado
Project:	DM, FW, FX, IH, IJ, NZ, DE, F1, IB		

ESTIMATED USER SHARE INFORMATION

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

Work under this contract will be assigned as needed under specific task orders. Current plan is to assign work as shown above. However, it is anticipated that Joint Use work maybe assigned over the four year contract period. It is anticipated that, as tasks are developed for work associated with specific facilities and costs are developed, the individual Users will be notified and billed according to agreed cost sharing.

Gail Alexander-Reeves / 5/7/2015 Date
Director of Budget

Dan Bae / 4/15/15 Date
Director of Procurement

Leonard R. Benson / 5-13-15 Date
Chief Engineer

George S. Hawkins / _____ Date
General Manager

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

ACTION REQUESTED

CONSTRUCTION CONTRACT:

Miscellaneous Facilities Upgrade – Phase 4
(Joint Use)

Approval to execute a construction contract for $21,310,000.00

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
Ulliman Schutte Construction, LLC 7615 Standish Place Rockville, MD 20855	Hi-Mark Construction Group Washington, DC	MBE	32.0%
	Ideal Electric Supply Corp. Washington DC	WBE	6.0%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	$21,310,000.00
Contract Time:	1500 Days (4 Years, 1 Month)
Anticipated Contract Start Date (NTP):	07-01-2015
Anticipated Contract Completion Date:	08-09-2019
Bid Opening Date:	04-15-2015
Bids Received:	4
Other Bids Received	
American Contracting & Environ. Services, Inc	$ 22,120,000.00
EMH Environmental, Inc.	$ 22,938,774.98
W.M. Schlosser	$ 25,688,000.00

Purpose of the Contract:

DC Water has an urgent need to have a contractor available to perform emergency and non-emergency repairs on existing process equipment which is beyond routine, preventive and corrective maintenance some of which will avoid potential violations of its NPDES permit.

Contract Scope:

- Modify Odor Control equipment at the 3rd and Constitution Ave Pumping Station
- Replacement of failing and outdated butterfly valves on return sludge piping at the Nitrification Facility
- Construct new access platforms for piping valves at the Multimedia Filtration Facility
- Specialized Services as per Task Scope
- Time and Material work on emergency and non-emergency Task Work Orders

Federal Grant Status:

- Construction Contract is eligible for Federal grant funding assistance; inclusion in grant is pending availability of grant funds.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	**Award Based On:**	Lowest responsive, responsible bidder
Commodity:	Construction	**Contract Number:**	140230
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	**Department:**	Engineering and Technical Services
Service Area:	Wastewater, Sanitary	**Department Head:**	Liliana Maldonado
Project:	BG,BR,BT,IZ,PD,HL,PF,MB		

ESTIMATED USER SHARE INFORMATION

BG, BR, BT, IZ, PD, HL, PF – Blue Plains Allocation

User	Share %	Dollar Amount
District of Columbia	41.22%	$ 8,611,868.00
Federal Funds	0.00%	$ 0.00
Washington Suburban Sanitary Commission	45.84%	$ 9,577,099.00
Fairfax County	8.38%	$ 1,750,787.00
Loudoun County & Potomac Interceptor	4.56%	$ 952,696.00
Total Estimated Dollar Amount	**100.00%**	**$ 20,892,450.00**

MB – Small Pump Station Rehab

User	Share %	Dollar Amount
District of Columbia	100.00%	$ 417,550.00
Federal Funds	0.00%	$ 0.00
Washington Suburban Sanitary Commission	0.00%	$ 0.00
Fairfax County	0.00%	$ 0.00
Loudoun County	0.00%	$ 0.00
Total Estimated Dollar Amount	**100.00%**	**$ 417,550.00**

Combined

User	Share %	Dollar Amount
District of Columbia	42.37%	$9,029,418.00
Federal Funds	0.00%	$0.00
Washington Suburban Sanitary Commission	44.94%	$9,577,099.00
Fairfax County	8.22%	$1,750,787.00
Loudoun County	4.47%	$952,696.00
Total Estimated Dollar Amount	**100.00%**	**$21,310,000.00**

5/7/2015 — 5/13/15

Gail Alexander-Reeves, Director of Budget — Date
Leonard R. Benson, Chief Engineer — Date

5/15/15

Dan Bae, Director of Procurement — 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:

Supply and Delivery of Dry Polymer –Clarifloc C-3699
(Joint Use)

Approval to execute a contract for polymer for the one (1) year in the amount of $2,000,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

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

DESCRIPTION AND PURPOSE

Base Year Contract Value:	$2,000,000.00
Contract Base Period:	365 Days
Number of Option Years:	0
Anticipated Contract Start Date:	07/01/2015
Anticipated Contract Completion Date:	06/30/2016
Bids Received:	1

Purpose of the Contract:

To provide dry polymer to the Blue Plains Advanced Wastewater Treatment Facility for solids dewatering for the Department of Wastewater treatment. The polymer is used at the Final Dewatering Facility to condition solids prior to belt filter press for dewatering of thermally hydrolyzed digested solids.

Contract Scope:

To furnish and deliver dry clarifloc polymer – C3699.

The construction contractor and belt filter press manufacturer (Ashbrook) were requested to select and purchase a polymer suitable for the operation and testing on the belt press equipment. After extensive testing the selected polymer was determined to be Clarifloc C-3699. The construction contractor purchased the chemical from Polydyne Inc, which included a testing period for each of the sixteen (16) belt filter presses. It is anticipated that the test period will be completed in September 2015. After which DC Water will take full control of the belt press facility; testing will begin on alternative polymers for potential use beginning July 2016.

Evaluated Bid Companies:

Polydyne, Inc.	$1.75 per dry lb. ($2,000,000.00)

PROCUREMENT INFORMATION

Contract Type:	Fixed Price Requirement Contract	**Award Based On:**	Sole Source
Commodity:	Goods and Services	**Contract Number:**	15-PR-DWT-35
Contractor Market:	Sole Source		

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%	$832,600.00
Washington Suburban Sanitary Commission	42.96%	$859,200.00
Fairfax County	10.57%	$211,400.00
Loudoun County & Potomac Interceptor	4.25%	$85,000.00
Others	0.59%	$11,800.00
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00%**	**$2,000,000.00**

5/13/15

Dan Bae — Date
Director of Procurement

5/14/15

Gail Alexander-Reeves — Date
Director of Budget

5/14/15

Walter Bailey — Date
AGM
Blue Plains

_____

George S. Hawkins — Date
General Manager

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

ACTION REQUESTED

CONSTRUCTION CONTRACT:

G100: Local Sewer Rehabilitation 1 (Non-Joint Use)

Approval to execute a construction contract for $5,250,125.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
SAK Construction 1405 Benson Ct. Suite C Arbutus, MD 21227	Envirenew, Inc Gaithersburg, MD	WBE	5.2%
	P & P Sewer Technology, Inc. Halethorpe, MD	MBE	7.4%
	Daco Construction Corp Hanover, MD	MBE	17.4%
	Luther's Supply Company St. Louis, MO	MBE	10.0%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	$5,250,125.00	
Contract Time:	730 Days	(2 Years, 0 Months)
Anticipated Contract Start Date:	09-20-2015	
Anticipated Contract Completion Date:	09-20-2017	
Bid Opening Date:	03-04-2015	
Bids Received:	3	
Other Bids Received		
Anchor Construction Corp.	$ 5,944,072.00	
Insituform Technologies, LLC	$ 6,795,518.00	

Purpose of the Contract:

To rehabilitate existing infrastructure and increase the service life of the sewer system.

Contract Scope:

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

Federal Grant Status:

- Construction Contract is eligible for Federal grant funding assistance; inclusion in grant is pending availability of grant funds.

PROCUREMENT INFORMATION

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

BUDGET INFORMATION

Funding:	Capital	**Department:**	Engineering and Technical Services
Service Area:	Sanitary	**Department Head:**	Liliana Maldonado
Project:	G1		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	$5,250,125.00
Federal Funds	00.00%	$0.00
Washington Suburban Sanitary Commission	00.00%	$ 0.00
Fairfax County	00.00%	$ 0.00
Loudoun County & Potomac Interceptor	00.00%	$ 0.00
Total Estimated Dollar Amount	**100.00%**	**$5,250,125.00**

5/7/2015
Gail Alexander-Reeves / Date
Director of Budget

5/15/15
Dan Bae / Date
Director of Procurement

5/13/15
Leonard R. Benson / Date
Chief Engineer

George S. Hawkins / Date
General Manager

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 21, 2015

DCWATER.COM

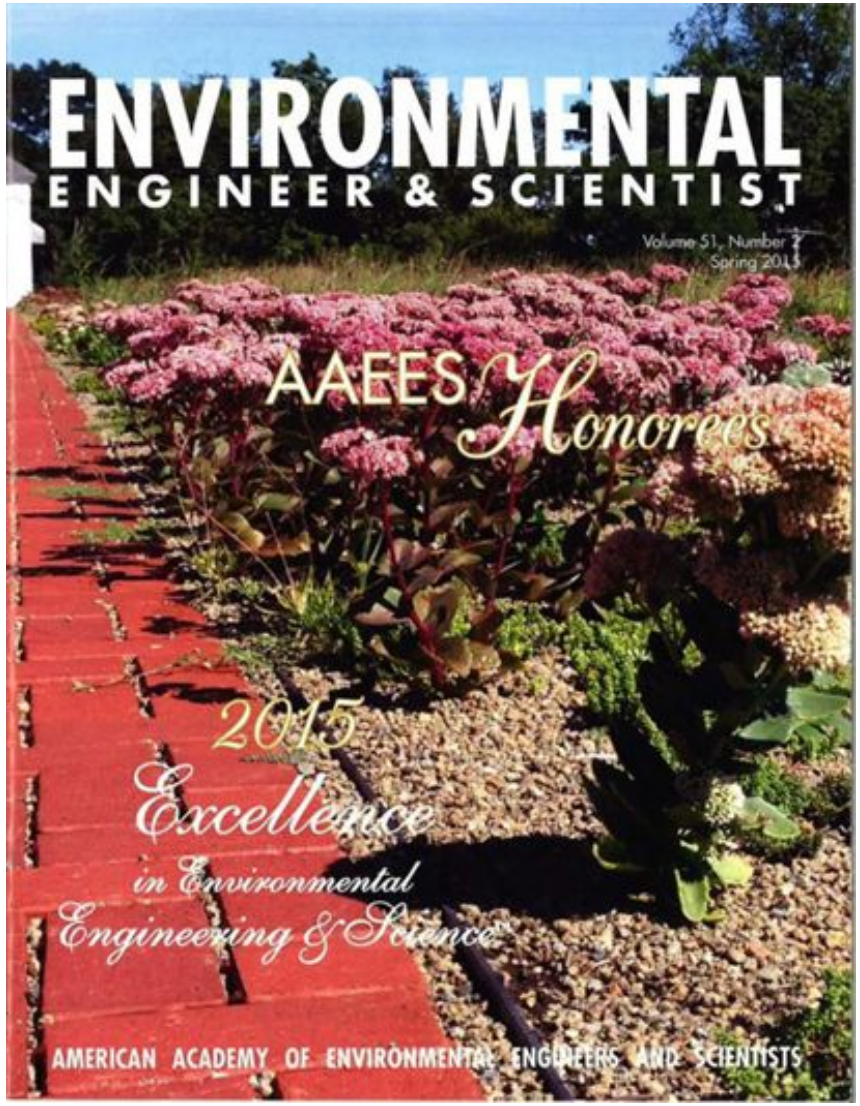
Agenda

- DC Clean Rivers Projects Implementation Schedule
- Award for Excellence in Environmental Engineering & Science by AAEES
- Major Accomplishments 2015, first quarter
- Schedule
- CIP Budget Status
- FY 2015 Spending Status
- Summary

dc clean RIVERS PROJECT

Award for Excellence in Environmental Engineering & Science

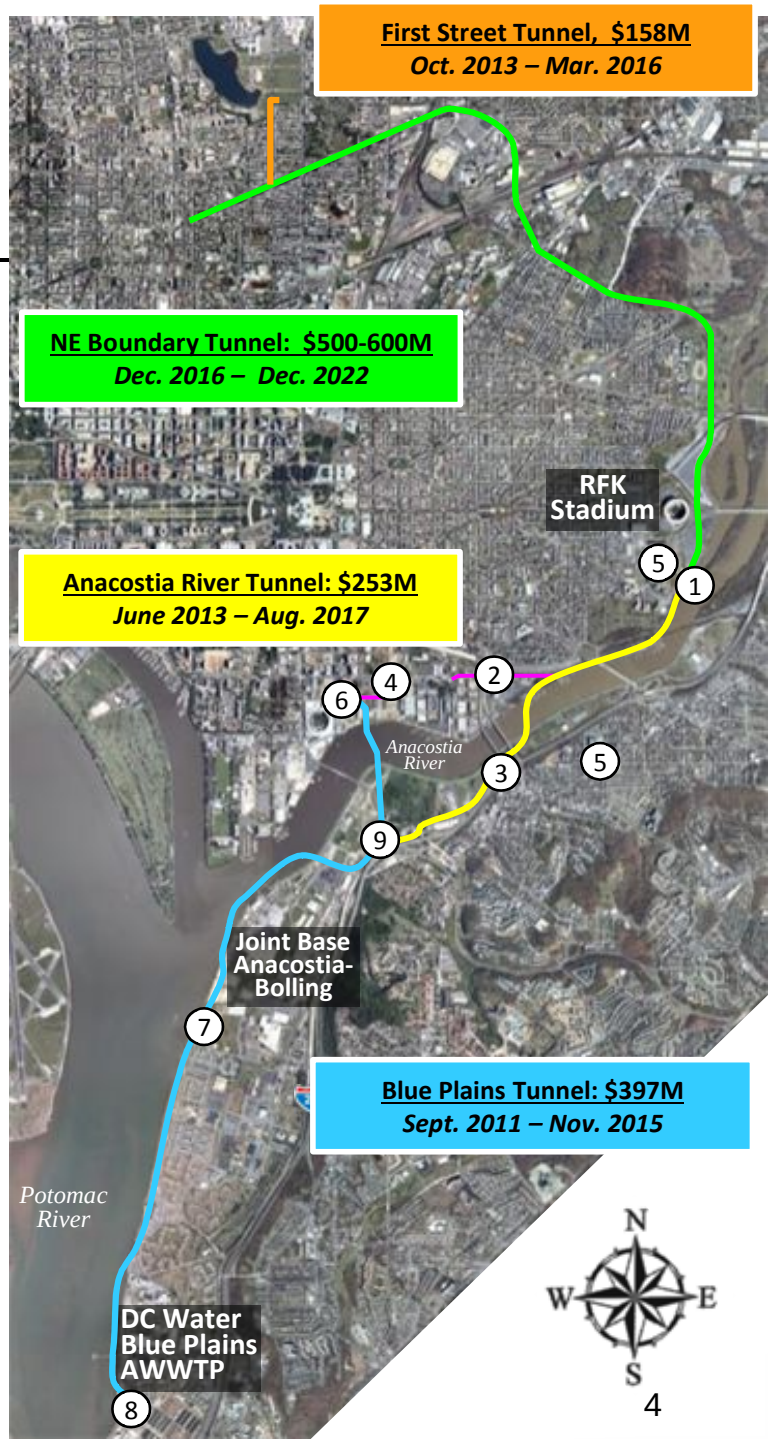
- The American Academy of Environmental Engineers and Scientists awarded DC Clean Rivers the award for Excellence in Environmental Engineering & Science in the Small Projects category for the Fort Reno Reservoir Green Roof



Anacostia River Projects: Implementation on Schedule

2011	2012	2013	2014	2015
	M St Diversion Sewer $31M (Const. Completed Dec 2014)	LID @ Various DC Water Facilities $4M *Dec* (Const. Completed Mar 2014)	Main PS $53M *May*	Blue Plains Tunnel PS/ECF $215M *Nov*
CSO 019 $28M *Sept* (Const. Completed Aug 2013)	CSO 007 $5M *Apr* Const. (Com-pleted Feb 2013)	Tingey St Diversion Sewer $17M *July* (Const. Completed Mar 2014)	JBAB Overflow & Diversion $40M *Oct*	Poplar Point PS $53M *Jan*

Months shown on timeline indicate construction start dates.



= Design

MAJOR ACCOMPLISHMENTS THROUGH FY 2015 QUARTER 1 UPDATE

dc clean RIVERS PROJECT

Division A – Blue Plains Tunnel

Progress at-a-Glance

As of April 1, 2015

Design-Builder: **Traylor-Skanska Jay Dee JV**
Contract Price: $330M Percent Complete: 92%

MPS Protection of Structures
- Protective slabs complete
- Soil mixing complete
- Steel ribs in Tiber Creek sewer complete

$4M completed
$0M remaining

MPS-DS Shaft & Structures
- Tremie slab complete
- CIP liner walls 100% complete
- Vortex structure complete
- Drop pipe complete
- Milestone A complete

$14 M completed to-date
$500K remaining

BAFB-DS Shaft & Structures
- CIP Concrete liner wall complete
- Drop pipe complete
- Vortex and Overflow channel SOE complete
- Milestone H complete

$15M completed to-date
$500K remaining

BPT-DS&SS Shaft & Structures
- BPT-SS CIP concrete liner 100% complete
- BPT-DS Base Slab 100% Complete
- BPT-DS CIP Concrete Liner 100% Complete
- Milestone C done

$65M completed to-date
$0M remaining

Approach Channel & Surge Chamber
- Surge Chamber and Approach Channel Complete

$12M completed to-date
$0K remaining

PP-JS Shaft & Structures
- Tremie slab complete
- CIP concrete liner complete
- Drop Pipe complete
- Permanent cover and retaining wall complete
- Milestone D complete

$18M completed to-date
$300K remaining

Tunnel Boring Machine & Precast Segments
- TBM On-site assembly 100% complete
- 20,332 LF Mined – 3,384 Rings Installed
- Production casting 99% complete

$30M TBM payment to-date
$0M TBM payment remaining

$97M Tunneling payment to-date
$8M Tunneling remaining

Div A – Washington Post Article, April 28, 2015

Transportation

Tunnel boring machine gets a trip to the dentist

The bits (foreground right) can be seen on the disk cutters on the face of the huge boring machine that is making a tunnel under the Anacostia River. Buck Price hands a rod to a coworker inside the boring machine. (Michael S. Williamson/The Washington Post)

By Ashley Halsey III April 28 Follow @ashleyhalsey3rd

Lady Bird reared her big ugly face at the bottom of a muddy pit recently, seeing daylight for the first time in more than a year.

Then the tunnel-boring machine named after the former first lady freshened up a bit and wormed back underground, ready to dig a massive hole beneath the Anacostia River toward the doorstep of Nationals Park.

These are the glory days of the project — if you're fond of a subterranean lifestyle — that one day will create a 13-mile network of cavernous tunnels beneath the capital city. Once finished, they will channel vast quantities of sewage, an ignoble fate for the now pristine concrete walls that Lady Bird leaves behind as she burrows forward.

Advertisement

Most Read Local

1 Major delays on Metro create morning mess for commuters

2 At a key point in the Baltimore riots, the governor wanted to talk to the mayor. She didn't pick up the phone.

3 Normal service resumes on Orange, Blue and Silver lines; delays continue

4 Developer, wife, found slain at Rockville home, Montgomery police say

5 Ex-CIA officer convicted in leak case sentenced to 3½ years in prison

Unlimited Access to The Post. Just 99¢

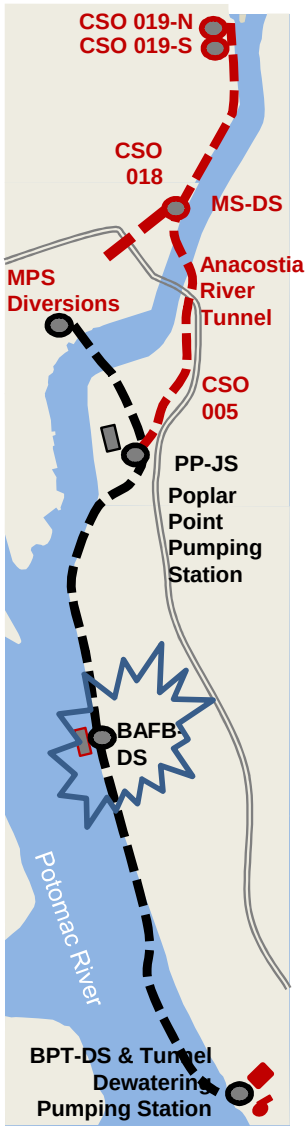
The Most Popular All Over

Forbidden Data

dc clean RIVERS PROJECT

Div D – JBAB Overflow and Diversion Structures

As of April 1, 2015
Design-Builder: **Corman Construction** Contract Price: $40M - Percent Complete: 14%



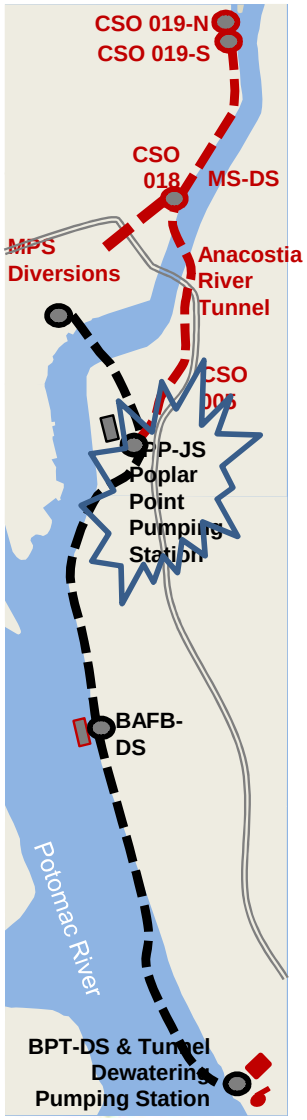
JBAB Diversion Structure is designed to capture flow from the Potomac Outfall Sewers to convey it to the BPAWWTP via BPT. JBAB Overflow Structure will allow overflow to the Anacostia when BPT is at capacity.

- Receiving / Reviewing construction submittals.
- Receiving / Reviewing design submittals.
- Design Builder mobilized to site on 5/1/2015.

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

As of April 1, 2015

Contractor: **EE Cruz**
Contract Price: $53.4M - 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.

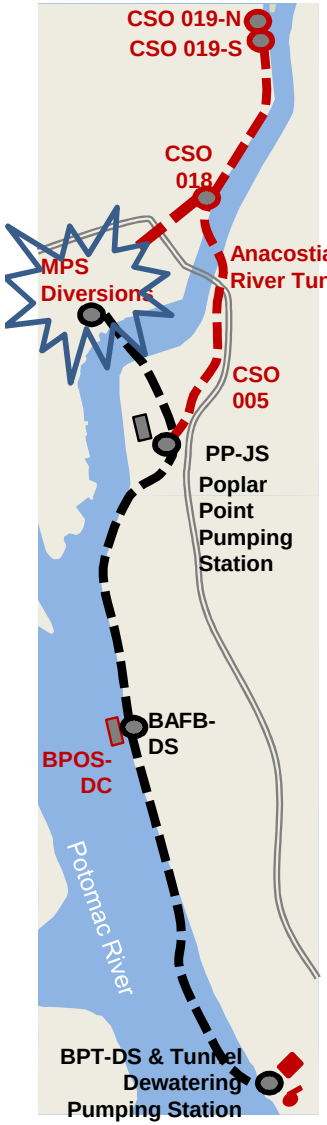
- Started sheet pile (Support of Excavation (SOE)) installation for Poplar Point Pumping Station.

9

Div I – Main Pumping Station (MPS) Diversions

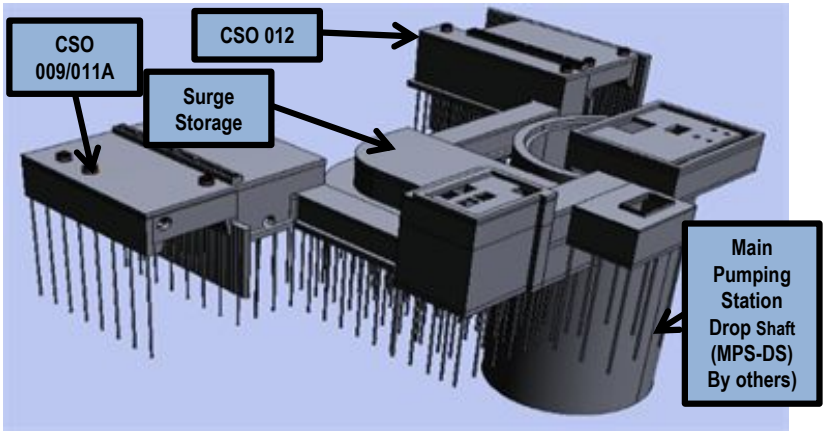
As of April 1, 2015

Design-Builder: **Corman Construction**
Contract Price: $53M - Percent Complete: 9%



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.

- Instrumentation installation ongoing.
- Installed 15 of 152 secant piles (10%).
- Private electrical duct bank complete.

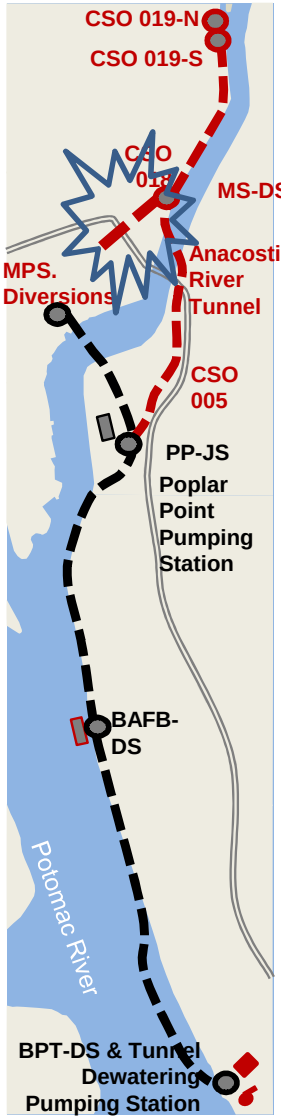


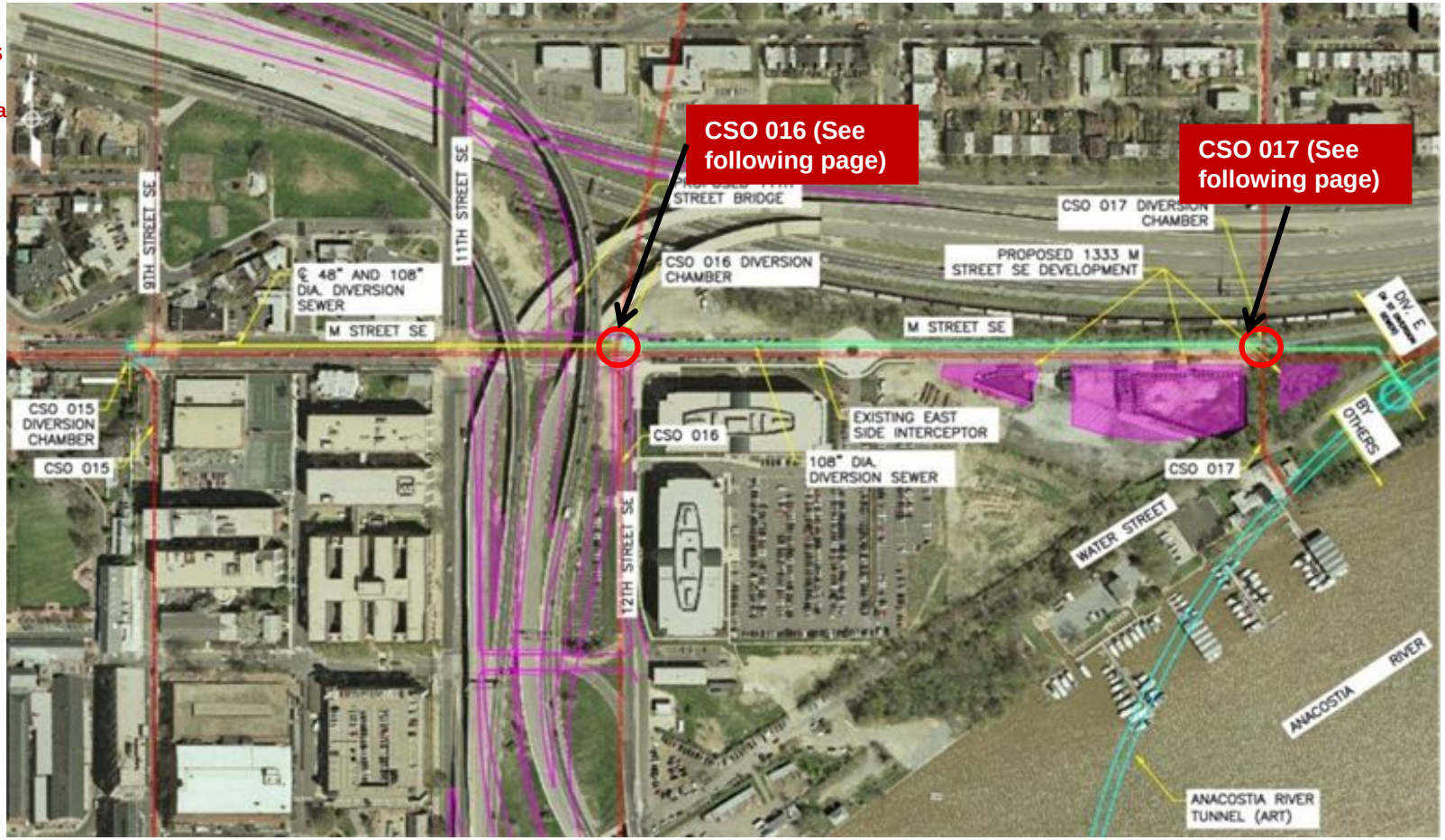
Div E – M Street Diversion Sewer

As of April 1, 2015

Contractor :**Corman Construction**
Contract Price: $32M Construction Percent Complete: 99%

M Street Diversion Sewer consolidates flow from CSOs 015, 016 and 017, diverting it to the ART via a series of diversion sewers.





11

Div E – M Street Diversion Sewer

- Project is substantially complete (Accepted Beneficial Occupancy on 12/30/2014).
- Site restoration underway. Planned completion early June 2015.

Painting Bollards at 9th Street

dc clean RIVERS PROJECT

Division H – Anacostia River Tunnel

Progress at-a-Glance

Financials as of April 30, 2015

Design-Builder: **Impregilo Healy Parsons Joint Venture (IHPJV)**
Contract Price: $253.9M Percent Complete: 39% ($)/ 42% (time)

CSO 019-CSA Shafts & ISCT

- CSO-019S Cast-in-Place Liner 54% Complete
- CSO-019N Cast-in-Place Liner 75% Complete
- ISCT Excav. at 60% Complete, on hold for Ground remediation due to inflow event

$ 15.2M completed to-date
$ 3.8M remaining

CSO 018-CSA Shaft and Structure

- Slurry Wall 100% Complete
- Dewatering wells installation complete

$ 1.8M completed to-date
$ 13.4M remaining

M Street CSA Shaft and Site Prep

- Slurry Wall Complete
- Shaft Excavation 80 % Complete

$ 4.7M completed to-date
$ 5.1M remaining

CSO 007-CSA Shaft and Site Prep

- Site Setup Complete
- Slurry Wall 100% Complete

$ 1.1M completed to-date
$ 2.6M remaining

CSO 005-CSA Shaft and Structure

- Site Setup Complete
- Slurry Wall 20% Complete

$ 0.8M completed to-date
$ 5.4M remaining

Tunnel Boring Machine & Precast Segments

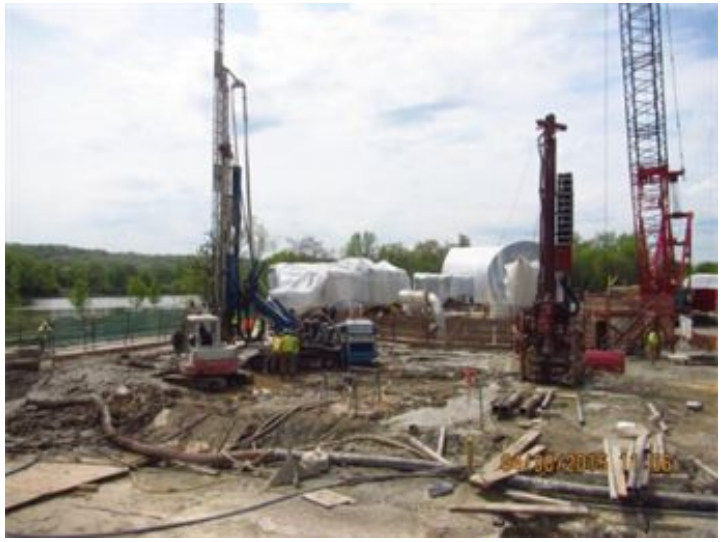
- TBM Surface Assembly Complete
- Segment Production (1040 Rings Compl.)

$ 21.25M TBM payment to-date
$ 3.75M TBM payment remaining

$ 10.2M Segment/Forms payment to-date
$ 8.2M Segments remaining

Div H – Ground Inflow Incident at Inter-Shaft Connector Tunnel (ISCT)

- Incident occurred on 2/11/2015.
- IHP Submitted a Differing Site Condition change notice.
- DC Clean Rivers conducting own investigation.
- IHP jet grouting to stabilize ground and allow for resumption of work at ISCT and CSO 019 North Shaft.
- DC Clean Rivers and IHP cooperating to assess impacts to critical path and allow for schedule recovery.
- Work at other contract divisions can proceed even with impacts due to ISCT to meet DC deadlines.



Division P – First Street Tunnel

Progress at-a-Glance

Financials as of April 1, 2015

Design-Builder: **Skanska Jay Dee JV**
Contract Price: $157.6M Percent Complete: 46.85%

CS-MS Base Slab & Perm. Liner

- Poured Permanent Liner Lift 1-10.
- Total 6007 CY of concrete.

$1.8M completed to-date
$0.0M remaining

Adams Street – Adit

- Drill & Install Freeze pipes underway at Adit.

$0.38M completed to-date
$3.14M remaining

Adams Street – Drop Shaft

- Poured Shaft Collar.

$0.48M completed to-date
$0.30M remaining

Pump Station-Drop Shaft

- Installed ring beam.
- Continue excavating (58% complete).

$0.43M completed to-date
$0.35M remaining

TBM Assembly at CS-MS

- Lower TBM cutter head with front body.
- Lower TBM mid body.

$0.27M completed to-date
$2.0M remaining

Adams St – A/FST Connection

- Started shaft excavation.
- Finished drill & install Freeze pipes.

$0.75M completed to-date
$0.37M remaining

V Street Freeze System

- Drill & Install Freeze pipe at adit underway.

$4.41M completed to-date
$0.02M remaining

V Street Drop Shaft

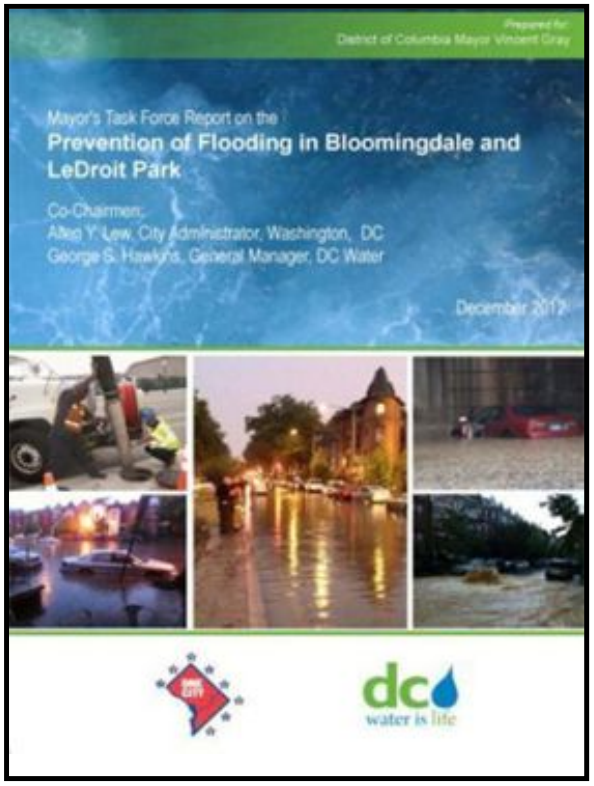
- Excavation complete.
- Installing shotcrete & insulation foam around shaft walls.

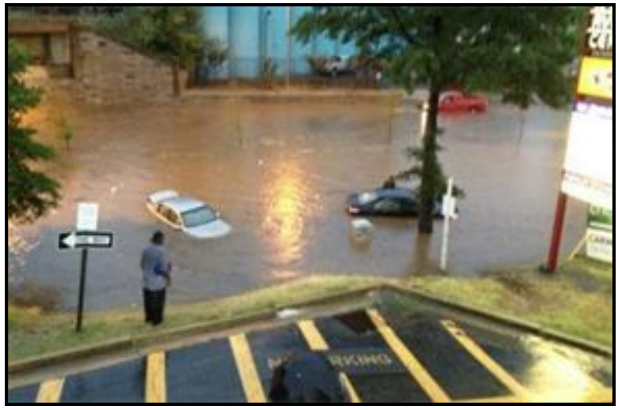
$0.56M completed to-date
$0.36M remaining

Div P – Tunnel Boring Machine (TBM) Naming Ceremony

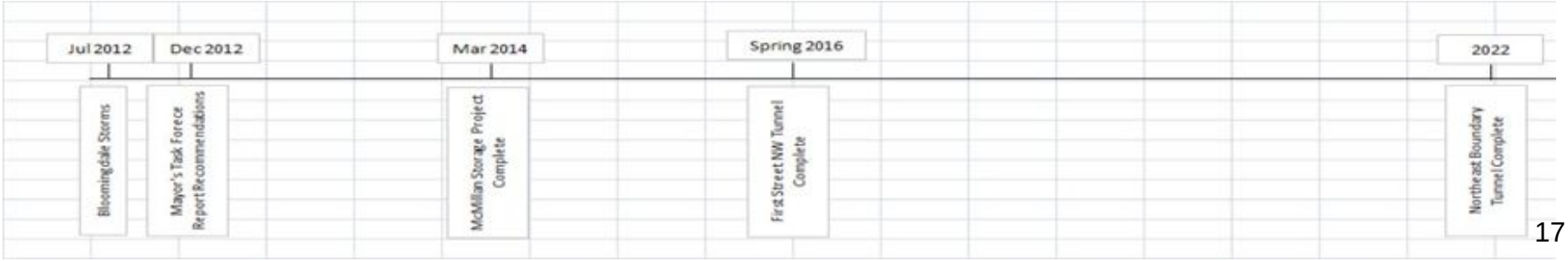
dc clean RIVERS PROJECT

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





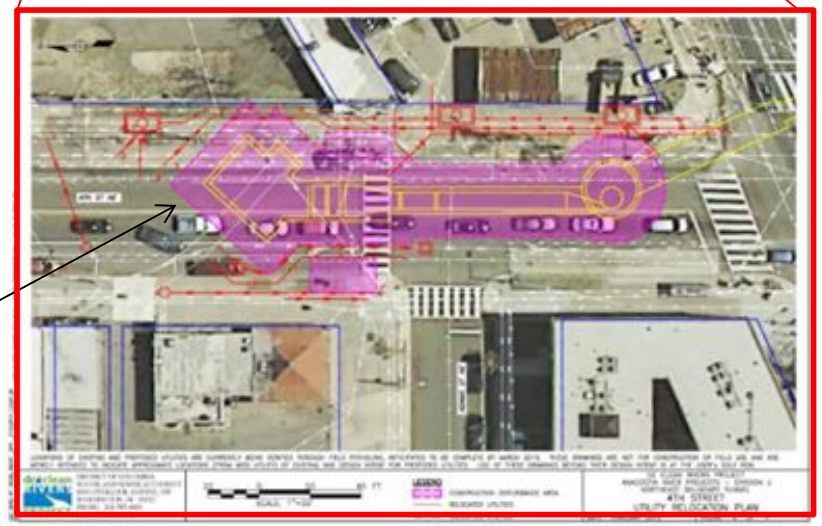
Mayor's Task Force Report (Dec 2012)



17

Div U: Advance Utility Relocations for Northeast Boundary Tunnel

- Purpose: Clear surface work sites to make way for Tunnel Contractor
- Continued final design work
- Continued to hold meetings with various DC Water departments, Washington Gas, Pepco, Verizon and Comcast to discuss utility relocations
- RFQ planned for July 2015
- RFP planned for November 2015
- Construction is planned to start on 3/1/2016 and continue for 14 months



Zone to be cleared of utilities

Example:4th & Rhode Island Ave NE

18

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)

Dates			
Design	Construction		
	RFP	NTP	Completion
DB	June 2016	2017	2022

Div J: Northeast Boundary Tunnel

- Obtained “no conflict” letter from WMATA for bus/transit impacts
- Obtained WMATA waiver for tunnel crossing of Metro @ RFK Stadium and Rhode Island Ave
- Held 90% traffic study review meeting with DDOT
- DDOT easements recorded for tunnel
- DGS easements obtained for Cooper Park
- Amtrak agreement obtained for tunnel crossing of tracks

dc clean RIVERS PROJECT

RC-A: Piney Branch Early Action GI

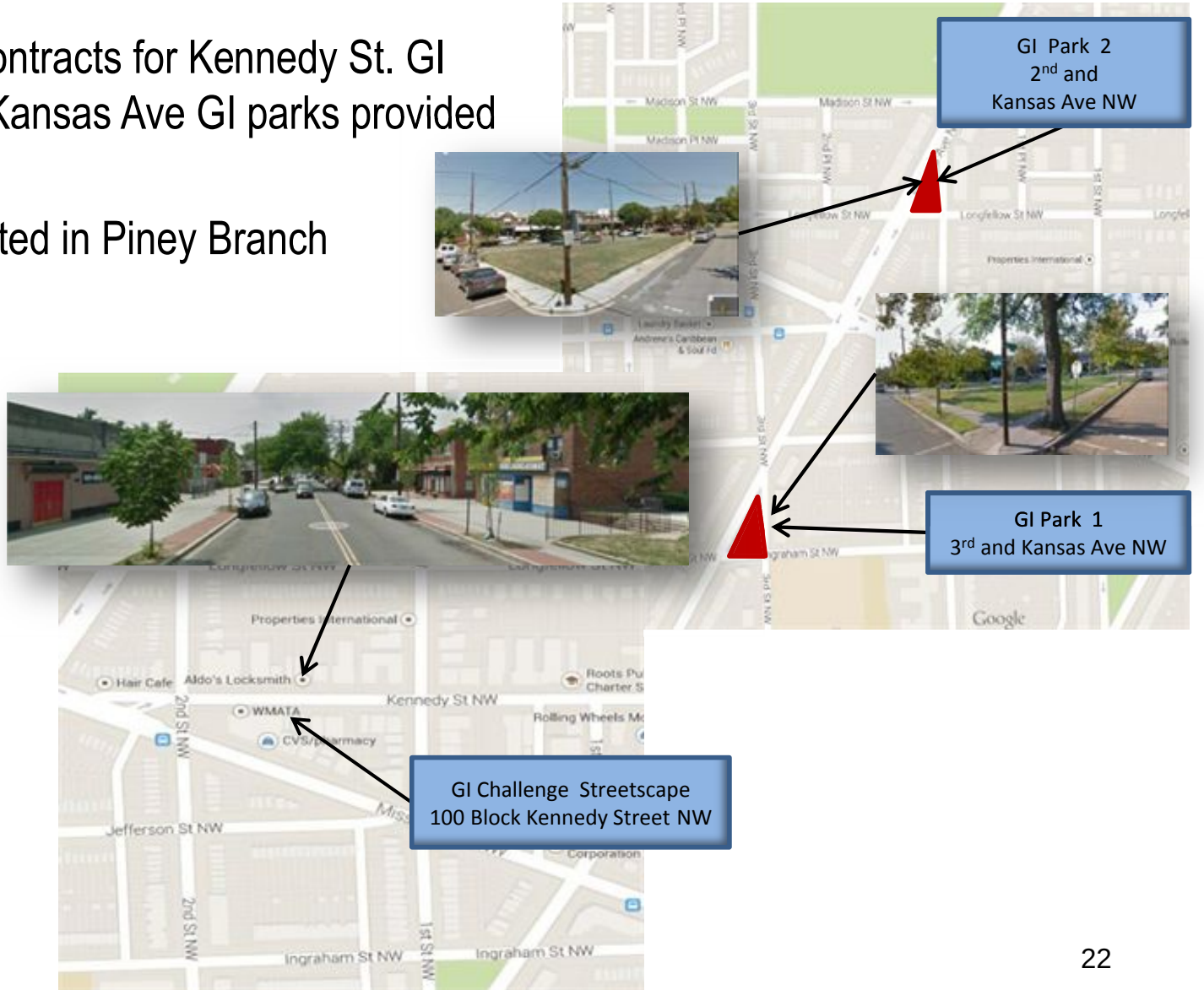
- Concept Plans completed for Washington Latin and Paul PCS and school administrations have provided formal support
- Washington Latin Draft Concept Design includes:
  - Downspout disconnection into rain barrels to support school's garden
  - Swale and bioretention to reveal stormwater management in 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 PCS 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.

dc clean RIVERS PROJECT

21

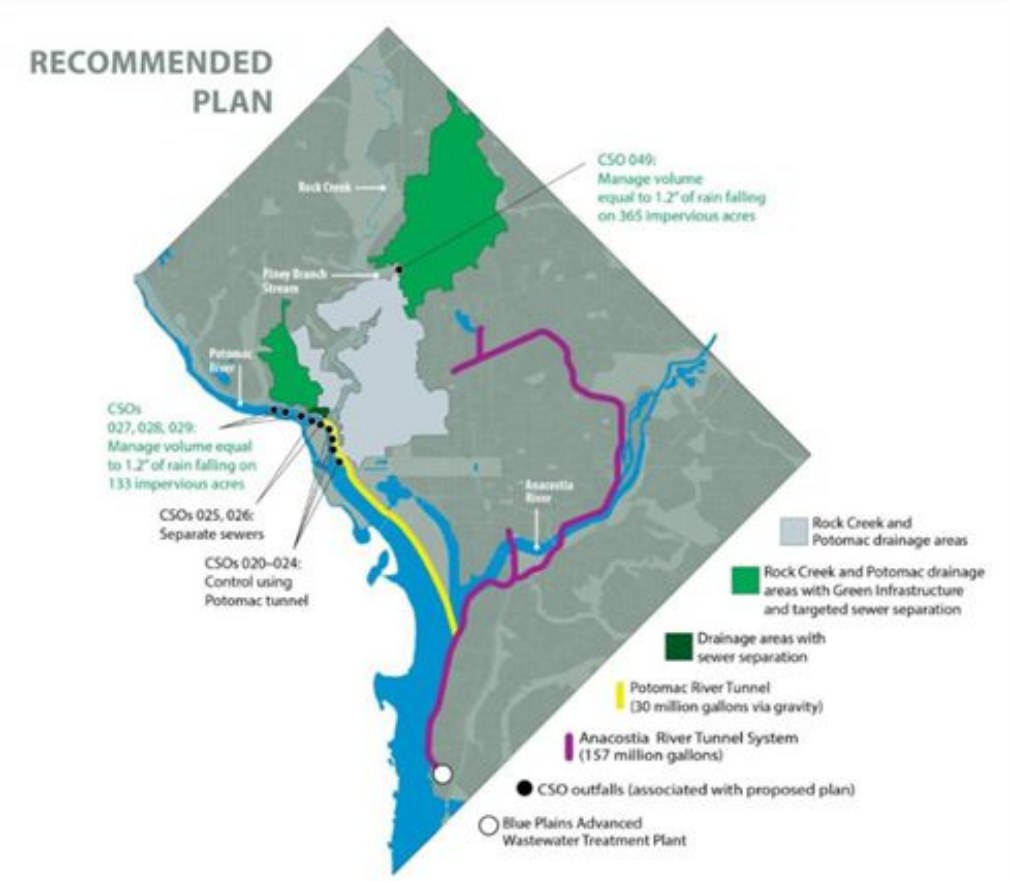
GI Challenge

- NTP for design contracts for Kennedy St. GI streetscape and Kansas Ave GI parks provided in March 2015.
- Two projects located in Piney Branch



dc clean RIVERS PROJECT

Consent Decree Modification



Potomac Tunnel: Impact of Consent Decree Modification

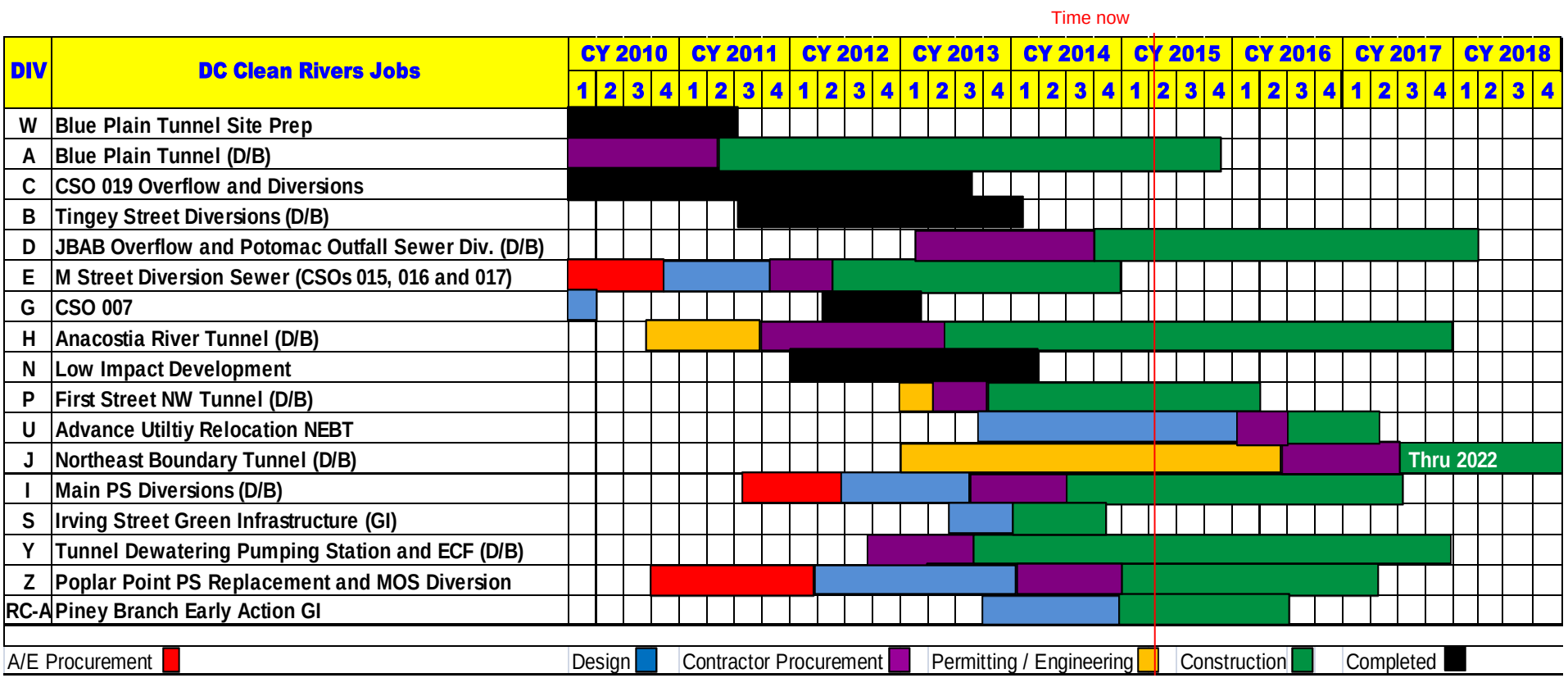
Item	Existing LTCP	Recommended Plan (Consent Decree Modification)
1. Tunnel Storage	58 million gallons	30 million gallons
2. Configuration	Separate tunnel	Interconnected with Anacostia River Tunnel System
3. Pumping Station	New tunnel dewatering pumping station near National Mall	Drains by gravity to Blue Plains
4. Operation	Tunnel pumping station discharges to existing Potomac Force Mains	Simple – gravity operation
5. Schedule	Complete by 2025	Complete by 2030

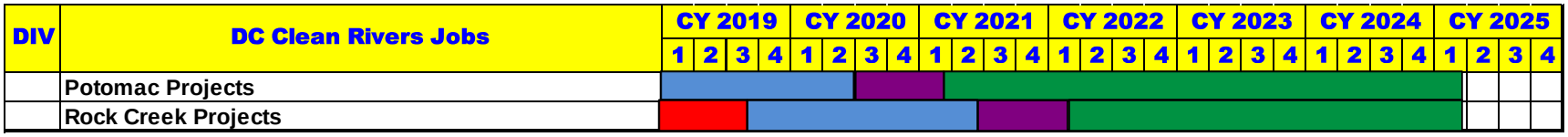
Significant benefits to ratepayers

dc clean RIVERS PROJECT

PROGRAM SCHEDULE

DC Clean Rivers Schedule





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

CURRENT CIP BUDGET STATUS

DC Clean Rivers CIP Budget

Program Funding	Proj. No.	Project & Discription		CIP Budget Cost ($ Billions) 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**	
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**	
BTN	EG, FS, H7	ENR Related Projects (Blue Plains Tunnel, JBAB Overflow and Diversion Structures, BP Site Prep)	Projects	0.237	2008
			Subtotal	**0.237**	
			Total	**2.630**	
			Reimbursement by the district:	**-0.059**	
			Revised Total:	**2.571**	

Projects required for nutrient removal at Blue Plains.

(1) Consent Decree modifications are not reflected in CIP budgets above.

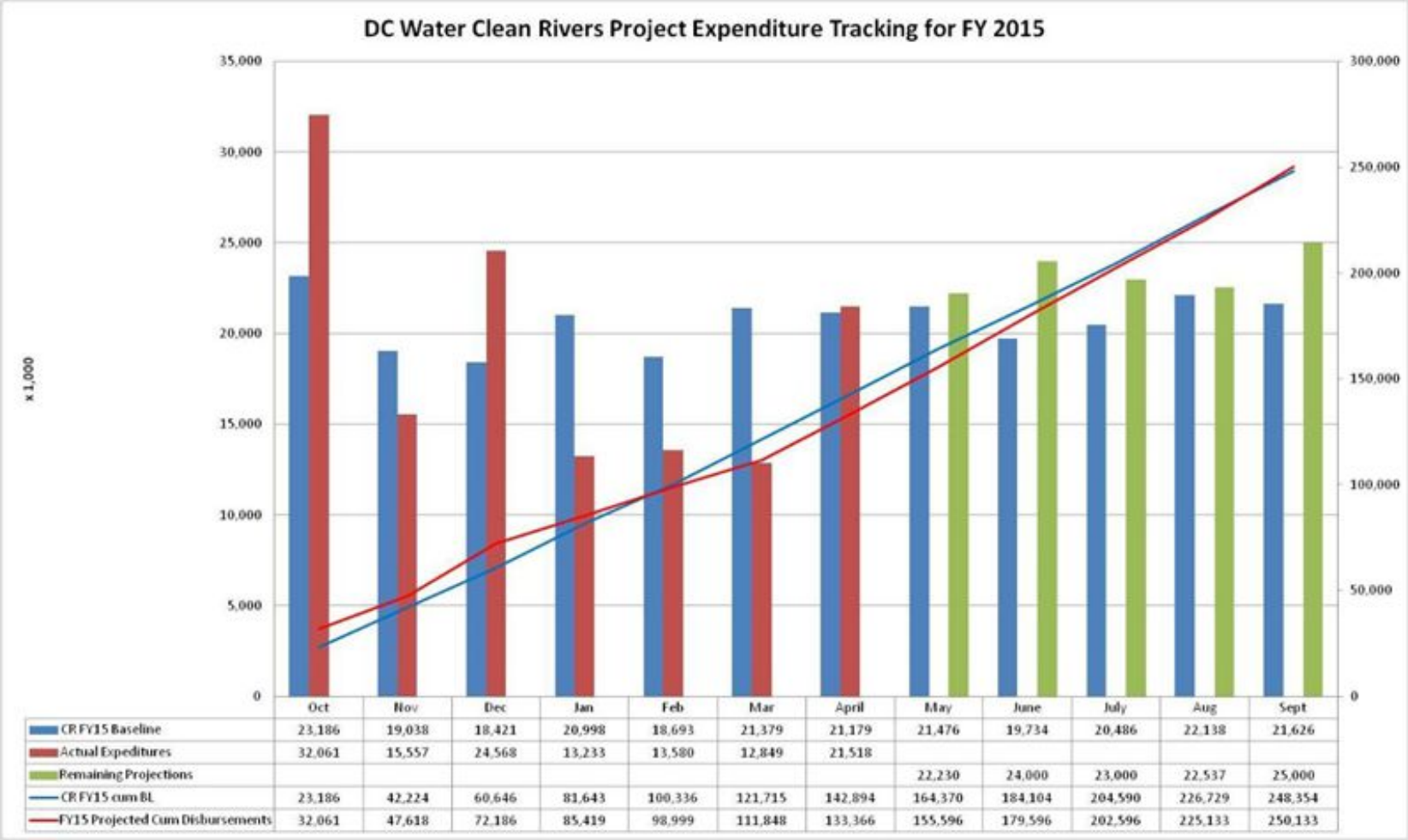
(2) Cost estimates for projects CZ and DZ were prepared in 2001 and do not reflect the current scope of work. Cost for these projects will be re-estimated once a better definition of scope is made available.

(3) 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 third party requirements (e.g. NPS)
- Unknown hazardous material

FISCAL YEAR 2015 SPENDING STATUS

FY2015 Spending Status



	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug	Sept
CR FY15 Baseline	23,186	19,038	18,421	20,998	18,693	21,379	21,179	21,476	19,734	20,486	22,138	21,626
Actual Expeditures	32,061	15,557	24,568	13,233	13,580	12,849	21,518					
Remaining Projections								22,230	24,000	23,000	22,537	25,000
CR FY15 cum BL	23,186	42,224	60,646	81,643	100,336	121,715	142,894	164,370	184,104	204,590	226,729	248,354
FY15 Projected Cum Disbursements	32,061	47,618	72,186	85,419	98,999	111,848	133,366	155,596	179,596	202,596	225,133	250,133

- To-date expenditures are tracking lower than planned mostly due a lagging invoice from FST and a slow down in the ART due to the ground inflow incident.

SUMMARY

Summary

On Track To Meet CD Milestones + On Budget

Construction:

- Overall physical construction percent complete for awarded projects is approximately 58%

Upcoming Procurements:

- RFQ and Bid Documents for Div U (Advance Utility Relocations for Northeast Boundary Tunnel) are planned for July 2015 and November 2015
- 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 2nd Quarter
January 1st through March 31st, 2015

Board of Directors
Environmental Quality and Sewerage Services Committee

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

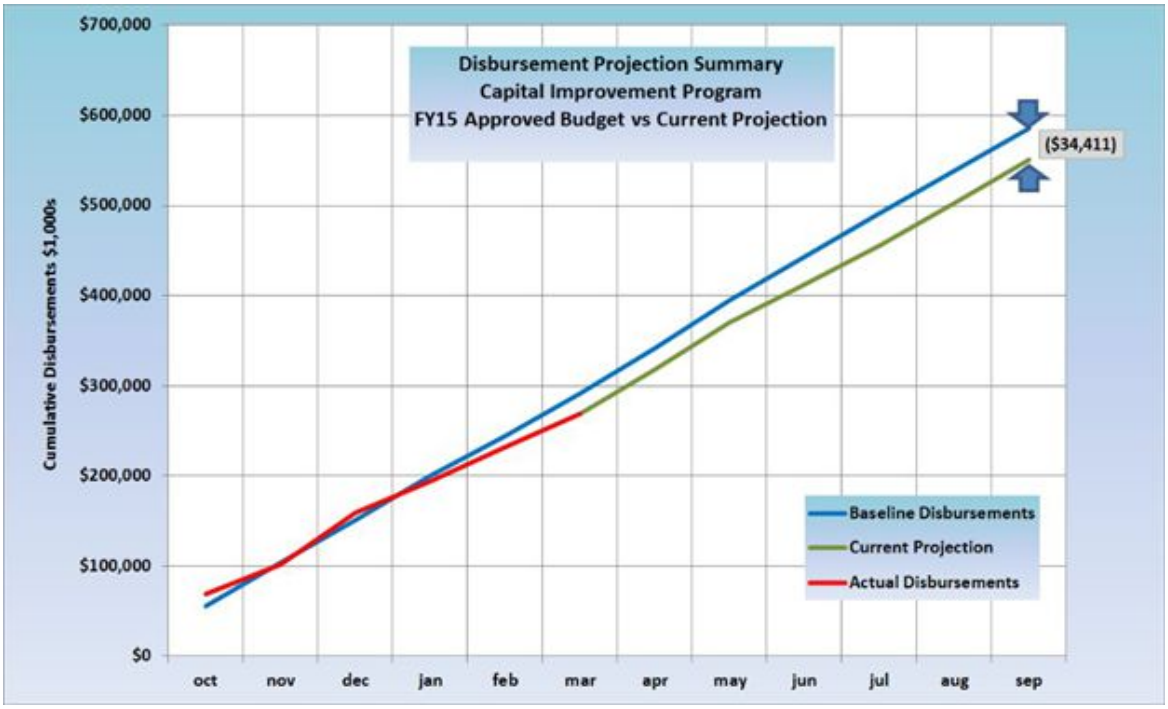
May 2015

Capital Improvement Program Report
2nd Quarter FY2015

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 $550,771,000 through the end of March, which is 6% 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 $206,259,000
Projected Disbursements $203,085,000 ($3.2M below baseline projection)
Significant project variances listed below

- *Liquid Processing Program Area – (Projected to be $3.1M below baseline)*
  - The projected disbursements for Project OZ are projected to be $2.6 million less than expected partly due to the change in procurement method from sole source to competitive bid requiring more time.

- *Enhanced Nitrogen Removal Program Area – (Projected to be $2.1M below baseline)*
  - The projected disbursements are expected to be $14.2 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, 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, in addition a conservative approach to projection of retention under estimated disbursements, contributing to anticipated fiscal yearend disbursements of $9.3 million above baseline projection.
  - Disbursements are projected to be $2.5 million above baseline on project BI Enhanced Nitrogen Removal (ENR) North partly due to Favorable construction progress and additional scope required during blower renovation.

CSO Service Area
Baseline Disbursements $271,100,000
Projected Disbursements $257,725,000 ($13.3M below baseline projection)
Significant project variance listed below:

- *Clean Rivers Program – (Projected to be $13.1M below baseline)*
  - Currently projected disbursements in Project CY – Anacostia LTCP Projects are below baseline disbursements partly due to the ground inflow incident at the Anacostia River Tunnel (ART) Inter Shaft Connecting Tunnel at the CSO 019 construction site, disbursements for this contract are expected recover in the next fiscal year. In addition, the First Street Tunnel (FST) Design/Builder is currently behind his baseline schedule thus also contributing to the less than baseline disbursements. DC Water is working with Design/Builder for the ART to mitigate delays caused by the ground inflow incident; moreover, DC Water requested the FST Design Builder to recover current schedule delays. DC Water is expected to meet all its consent decree milestones.

Stormwater Service Area
Baseline Disbursements $2,559,000
Projected Disbursements $640,000 ($1.9M below baseline projection)

- Stormwater Trunk/Force Sewers
  - The emerging needs that Project BO – Future Stormwater Projects was created to fund have not materialized this fiscal year to date and as a result disbursements are predicted to be $1.5 million less than baseline projection.

Sanitary Sewer Service Area
Baseline Disbursements $40,258,000
Projected Disbursements $29,938,000 ($10.3M below baseline projection)

- *Sanitary Collection Sewers Program Area – (Projected to be $3.5M below baseline)*
  - Currently projected disbursements are $1.8 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 $3.8M 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 $1.3 million below baseline.
- *Sanitary Sewer Management – (Projected to be $3.1M Below Baseline)*
  - Projected disbursements for Project DN – Sewer Inspection Program are $2.3M below baseline projections partly due to deferral of funds from FY15 to FY16 in order to procure an unusually large heavy cleaning and inspection contract for the Upper Potomac Interceptor Relief Sewer due to an emerging need.

Water Service Area

Baseline Disbursements	$65,006,000	
Projected Disbursements	$59,383,000	($5.6M below baseline projection)

- *Water Storage Facility Program Area – (Projected to be $1.4M below baseline)*
  - Projected disbursements are $1.0 million below baseline projections in Project FA – Water Storage Facility Upgrades due to construction delays caused by permitting and other construction issues.

- *Water Distribution Program Area – (Projected to be $1.9M below baseline)*
  - Projected disbursements are $2.0 million below baseline in Project O1 – Small Diameter Water Main Rehab 9 due to slow construction progress at the start of the year partly attributed to quality control concerns that are now largely resolved.

- *DDOT Water Program Area – (Projected to be $2.0M below baseline)*
  - Most of the under spending in the Water Service area is under the DDOT program which is currently projected to be about $2.0 million below the baseline projection. This is mainly due to DDOT concentrating on major projects and not constructing road projects which include water main work.

Capital Improvement Program Report
2nd Quarter FY2015

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 Sep, BOD Oct

Project J3 – National Arboretum Sewer Rehab Contract 1
Construction Contract ($5M - $10M), EQ&SS Oct, BOD Nov

Project O3 – Small Diameter Watermain Rehab 11a
Construction Contract ($5M - $10M), WQ&WS Jul, BOD Sep

Project CY – Div U - Advance Utility Relocations for NEBT
Construction Contract ($15M - $20M), WQ&WS Dec, BOD Jan

Project DR – Low Area Trunk Sewer - Rehabilitation
Construction Contract ($10M - $15M), EQ&SS Nov, BOD Dec

Project DZ – Div RC-A - Piney Branch Early Action
Construction Contract ($5M - $10M), EQ&SS Sep, BOD Oct

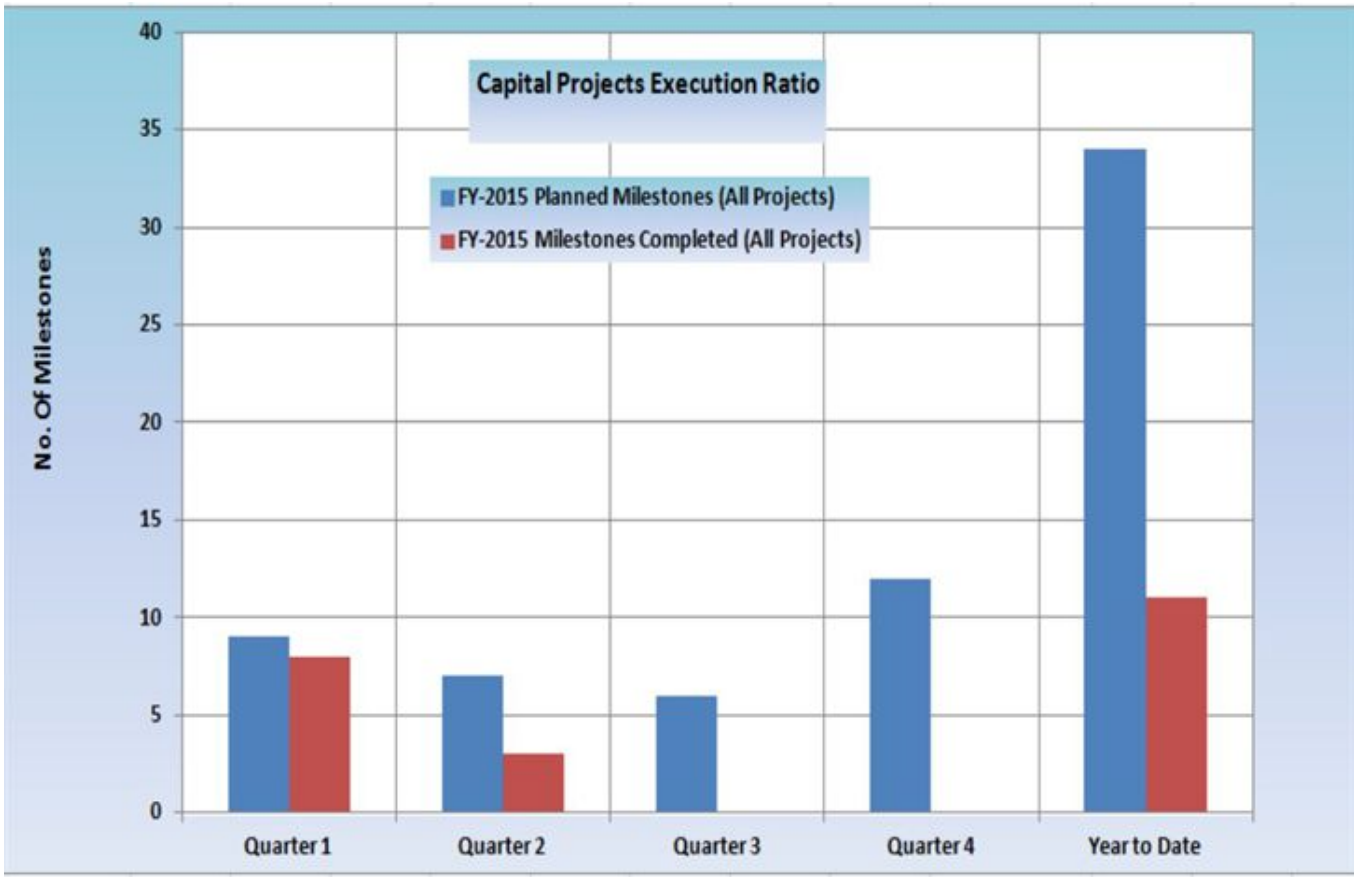
Project O3 – Small Diameter Watermain Rehab 11b
Construction Contract ($5M - $10M), EQ&SS Dec, BOD Jan

Project G1 – Lining & Repair of Local Sewers
Construction Contract ($5M - $10M), EQ&SS May, BOD Jun

Capital Improvement Program Report
2nd Quarter FY2015

Key Performance Indicators, Capital Improvement Program

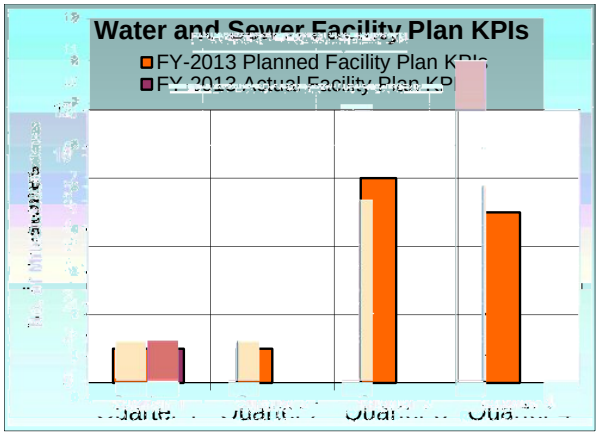
Key performance indicators related to the Capital Improvement Program are shown below.



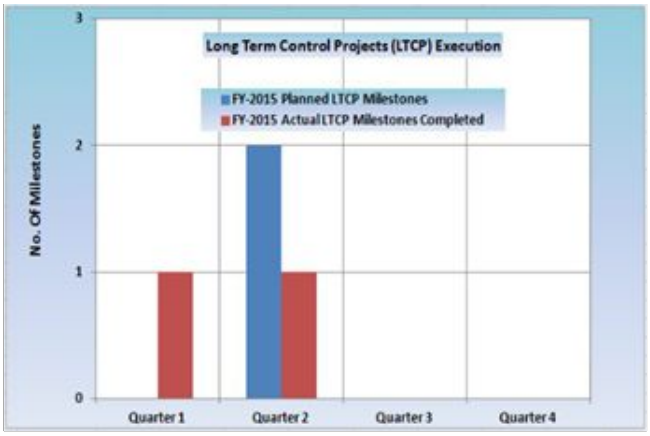
Note: Capital Projects Execution Ratio measures the completion of critical project milestones for large capital projects during the fiscal year. Critical project milestones include: Design Starts, Construction Starts and Construction Substantial Completions as well as Consent Decree and Permit mandated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

For the 2nd Quarter, four of the scheduled Key Performance Indicators (KPIs) had already been achieved in the first quarter; the remaining three planned KPIs were achieved. These included the construction start milestone for Div Z - Poplar Point Pumping Station Replacement, the design start milestone for Small Diameter Water Main Replacement 12A, and the design start portion of the New Headquarters Building progressive design/build.

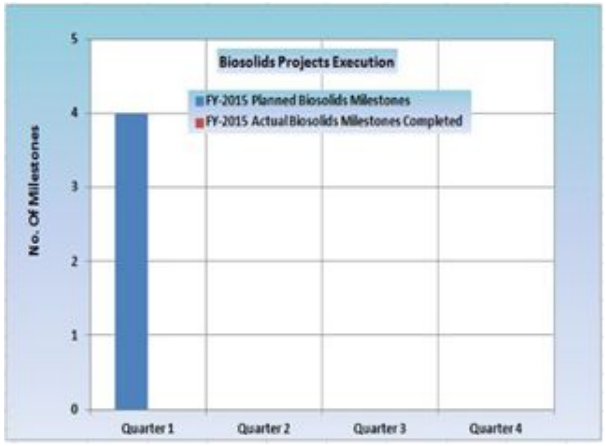
Capital Improvement Program Report
2nd Quarter FY2015



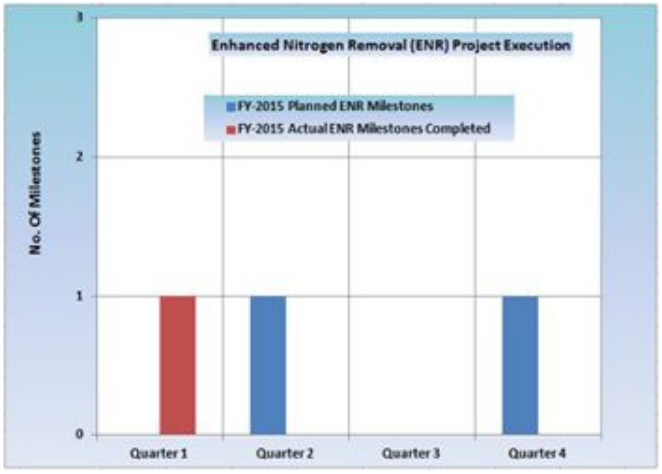
Note: Water and Sewer Facility Plan KPIs measure the completion of critical project milestones for projects developed through either the Water or the Sewer Facility Plan. For variance, see note above.



Note: 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.



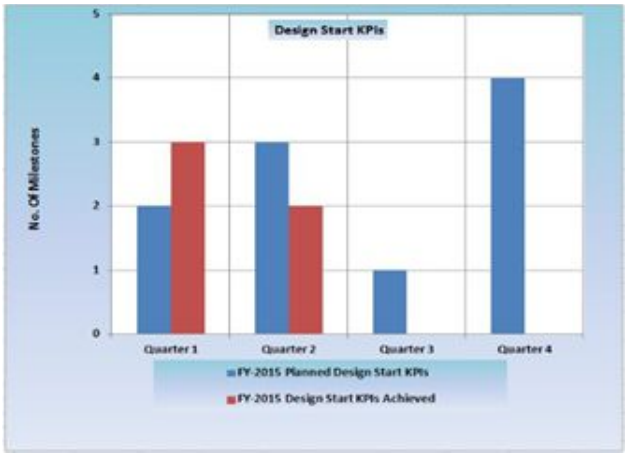
Note: Biosolids Project Execution measures the completion of critical project milestones for the Biosolids projects during the fiscal year. For variance, see note above.

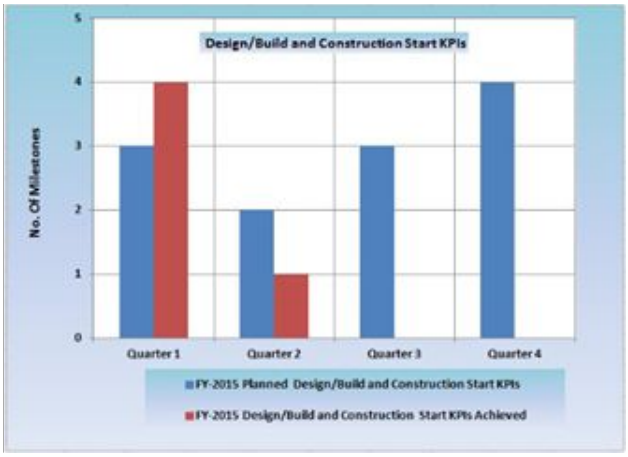


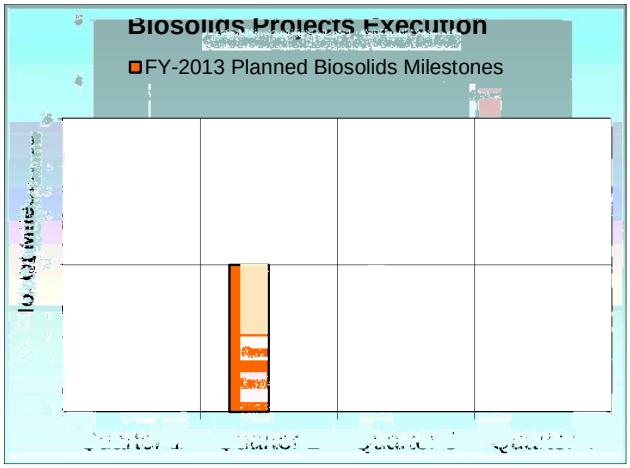
Note: Enhanced Nitrogen Removal Execution measures the completion of critical project milestones for the Enhanced Nitrogen Removal (ENR) projects during the fiscal year. For variance, see note above.

Capital Improvement Program Report
2nd Quarter FY2015

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







Capital Improvement Program Report
2nd Quarter FY2015

For FY15, the following KPI Milestones will be monitored:

Qtr.	Project	Job Name	KPI Name	KPI Achieved?
1st	XA12	Biosolids Final Dewatering	Construction Substantial Completion	N
1st	XA08	Biosolids Main Process Train (MPT)	Construction Substantial Completion	N
1st	XA10	Biosolids Combined Heat and Power (CHP)	Construction Substantial Completion	N
1st	XA12	Biosolids Final Dewatering	Construction Substantial Completion	N
1st	FY01	Rehab Upper Part of Rock Creek Main 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
1st	FS01	Div D - JBAB Overflow and Diversion 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)
2nd	CY21	Div Z - Poplar Point Pumping Sta. Replacement	Construction Start Milestone	Y
2nd	DE01	Small Diameter Water Main Repl 12A	Design Start Milestone	Y
2nd	IL07	Creekbed Sewer Rehabilitation Bingham Drive	Design Start Milestone	Y (1st Q)
2nd	DS01	New Headquarters Building	Design Start Milestone	Y
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	
4th	FH01	Discharge Piping Bryant Street Pump 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	

Capital Improvement Program Report
2nd 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	