

**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, March 17, 2016  
9:30 a.m.*

**I. Call to Order**

James Patteson  
Chairperson

**9:30 a.m. II. AWTP Status Updates**

Aklile Tesfaye

1. [BPAWTP Performance](#)

**9:45 a.m. III. [Inspection of Northeast Boundary Sewer](#)**

Liliana Maldonado

**10:00 a.m. IV. Action Items – Joint Use**

Dan Bae/Leonard Benson

1. [Contract No. WAS-13-006-AA-RE – PVS, Inc.](#)
2. [Contract No. WAS-12-013-AA-SH –Univar USA, Inc.](#)
3. [Contract No. WAS-11-059-AA-CE –Collins Elevator Services](#)

**Non-Joint Use**

1. [Contract No. 160030 - Marine Technologies, Inc.](#)

**10:30 a.m. V. [Enterprise IT Planning](#)**

Thomas Kuczynski

**10:50 a.m. VI. Other Business/Emerging Issues**

**10:55 a.m. VII. Adjournment**

James Patteson  
Chairperson

\* The DC Water Board of Directors may go into executive session at this meeting pursuant to the District of Columbia Open Meetings Act of 2010, if such action is approved by a majority vote of the Board members

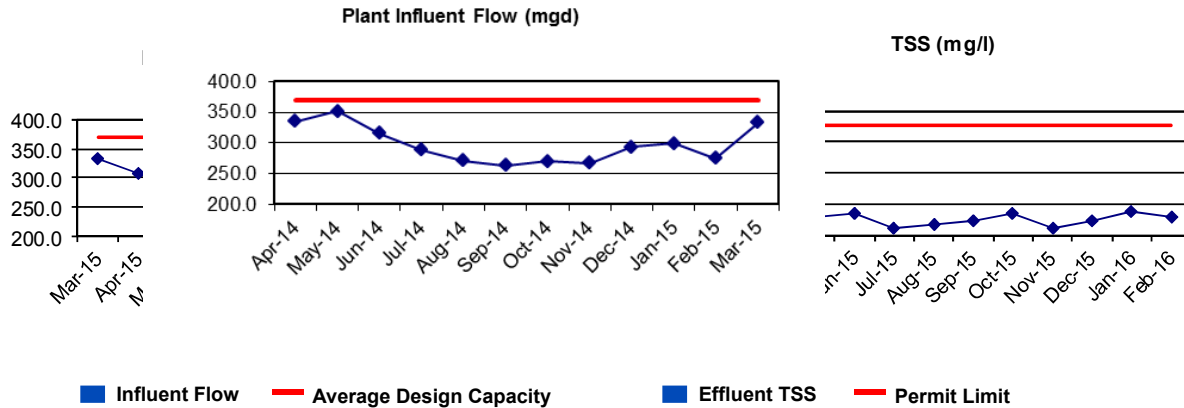
who constitute a quorum to discuss: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); contract negotiations under D.C. Official Code § 2-575(b)(1); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4); collective bargaining negotiations under D.C. Official Code § 2-575(b)(5); facility security under D.C. Official Code § 2-575(b)(8); disciplinary matters under D.C. Official Code § 2-575(b)(9); personnel matters under D.C. Official Code § 2-575(b)(10); proprietary matters under D.C. Official Code § 2-575(b)(11); decision in an adjudication action under D.C. Official Code § 2-575(b)(13); civil or criminal matters where disclosure to the public may harm the investigation under D.C. Official Code § 2-575(b)(14), and other matters provided in the Act.

**Follow-up Items from Prior Meetings:**

1. Mr. Tesfaye to provide a presentation on the Bloom product marketing status after the May 12th product launch when more information and feedback are available. **{To be scheduled}**
2. The Committee requested to have a further discussion on the MOU agreement with the full board. **{Completed}**
3. Schedule a presentation on the KPI recommendation to measure and report overall project objectives as suggested in the November 19, 2015 committee meeting. **{To be scheduled upon completion of analysis and recommendations}**

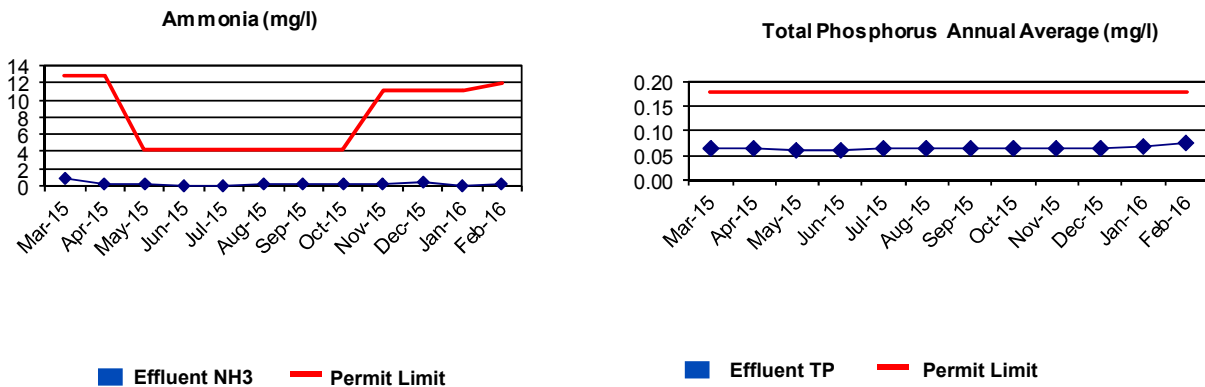
## DEPARTMENT OF WASTEWATER TREATMENT February 2016

Average plant performance for the month was excellent with all effluent parameters well below the seven-day and monthly NPDES permit requirements. The monthly average influent flow was 347 MGD. There was 163 MG of Excess Flow during this reporting period. The following figures compare the plant performance with the corresponding NPDES permit



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

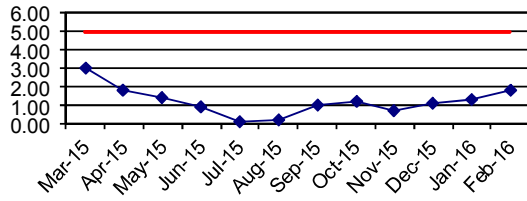
Effluent Total Suspended Solids (TSS) is a measure of the amount of solid material that remains suspended after treatment. The effluent TSS concentration for the month averaged 1.16 mg/L, which is below the 7.0 mg/L permit limit.



The Ammonia Nitrogen (NH<sub>3</sub>-N) is a measure of the nitrogen found in ammonia. For the month, effluent NH<sub>3</sub>-N concentration averaged 0.18 mg/L and is below the average 11.1 to 12.8 mg/L 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.

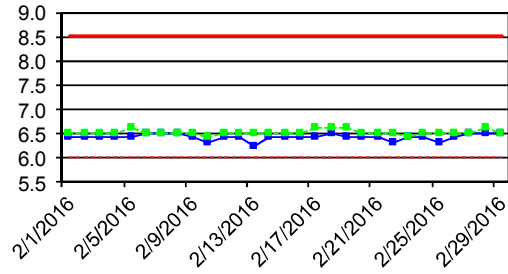
**CBOD (mg/l)**



■ Effluent CBOD    — Permit Limit

Carbonaceous Biochemical Oxygen Demand (CBOD) is a measure of the amount of dissolved oxygen required for the decomposition of organic materials. The effluent CBOD concentration averaged 1.85 mg/L (partial month) which is below the 5.0 mg/L limit.

**Min and Max Instantaneous pH**

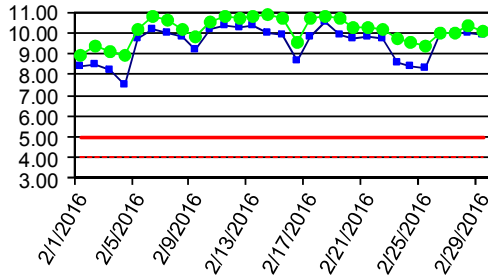


● MAX pH    ■ MIN pH    — Upper Limit    - - Lower Limit

pH is a measure of the intensity of the alkalinity or acidity of the effluent. The minimum and maximum pH observed were 6.2 and 6.6 standard units respectively. The pH was within the permit limits of 6.0 and 8.5 for minimum and maximum respectively.

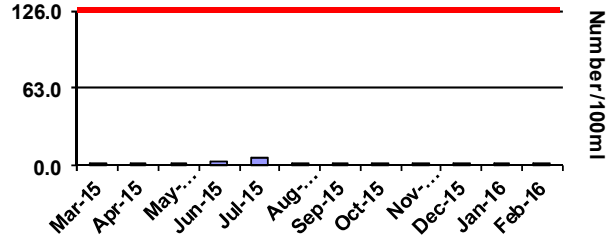
**E. coli**

**Daily and Instantaneous Min DO**



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

Dissolved Oxygen (DO) is a measure of the atmospheric oxygen dissolved in wastewater. The DO readings for the month are within the permit limits. The minimum daily average is 8.9 mg/L. The minimum instantaneous DO reading is 7.5 mg/L. The minimum permit limits are 5.0 mg/L and 4.0 mg/L respectively.

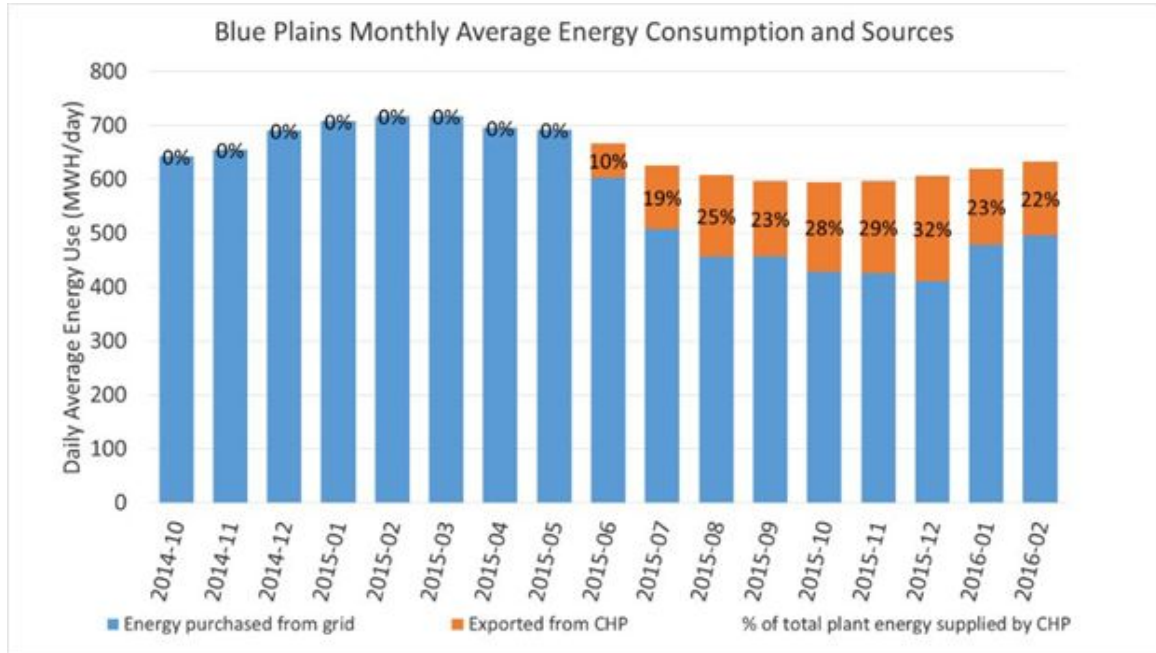


■ E. Coli Geomean    — Permit Limit

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

## BLUE PLAINS ELECTRICITY GENERATION AND USAGE

The average energy consumed at Blue Plains was 633 MWH/day for the month of February, while the average energy purchased from PEPSCO was 496 MWH/day. The CHP facility produced an average of 137 MWH/day, making up for 22% of total energy consumed at Blue Plains. The net energy export from CHP was lower this month because of equipment downtime from maintenance related activities.



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

## CHP – OPERATIONS AND MAINTENANCE UPDATE

Since February 29, 2016, on-site generation of electricity was temporarily interrupted due to mechanical damage observed on the engines of all three gas turbine generator sets in the CHP facility. The shutdown - mandated by the manufacturer - was necessary to prevent further damage, complete a thorough inspection of the units, and plan and execute repair or replacement of damage components in an expeditious manner. Disassembly for field inspection and repair of the first unit commenced on March 5, 2016 with an anticipated completion and return to service date of March 13, 2016. Both the inspection and repair/replacement works are performed by Solar, the manufacturer of the Mercury 50 Turbines. The second and third turbine generator sets are scheduled for return to operation on March 24<sup>th</sup> and 26<sup>th</sup> respectively.

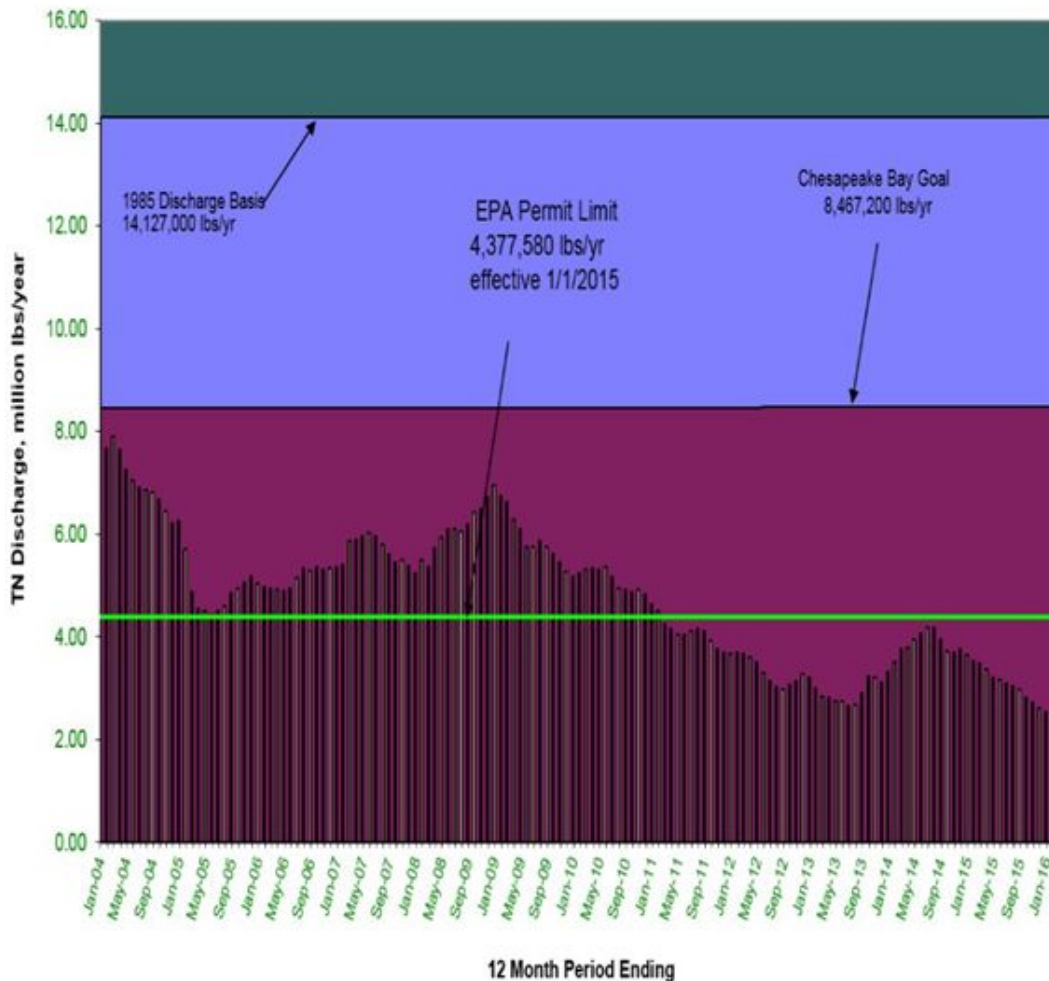
The resulting loss of power generation will increase the need for purchases of electricity off the grid until the repairs are complete. We are monitoring the situation closely in conjunction with our engineering and finance offices. We will provide a more complete report at the April EQSS meeting.

The CHP facility is still under commissioning and all contractually required performance tests have to be completed successfully before final acceptance by DC Water.

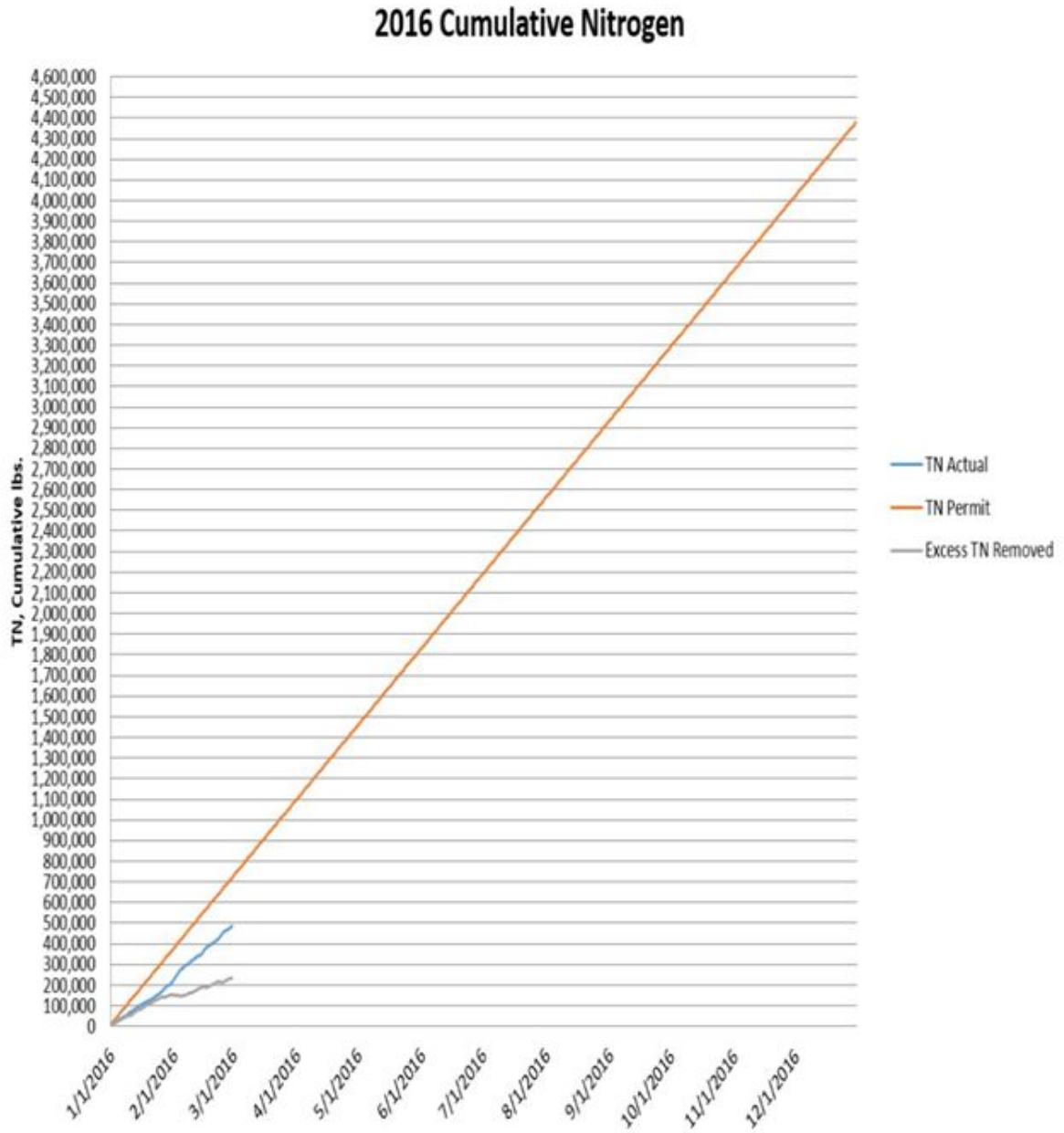
**BIOLOGICAL NUTRIENT REMOVAL PERFORMANCE**

During the month the full-scale BNR process produced an effluent with average total nitrogen concentration of 3.17 mg/l. The figure below shows Blue Plains effluent total nitrogen (TN) since the implementation of full scale BNR.

Annual Total Nitrogen Load, lbs/yr

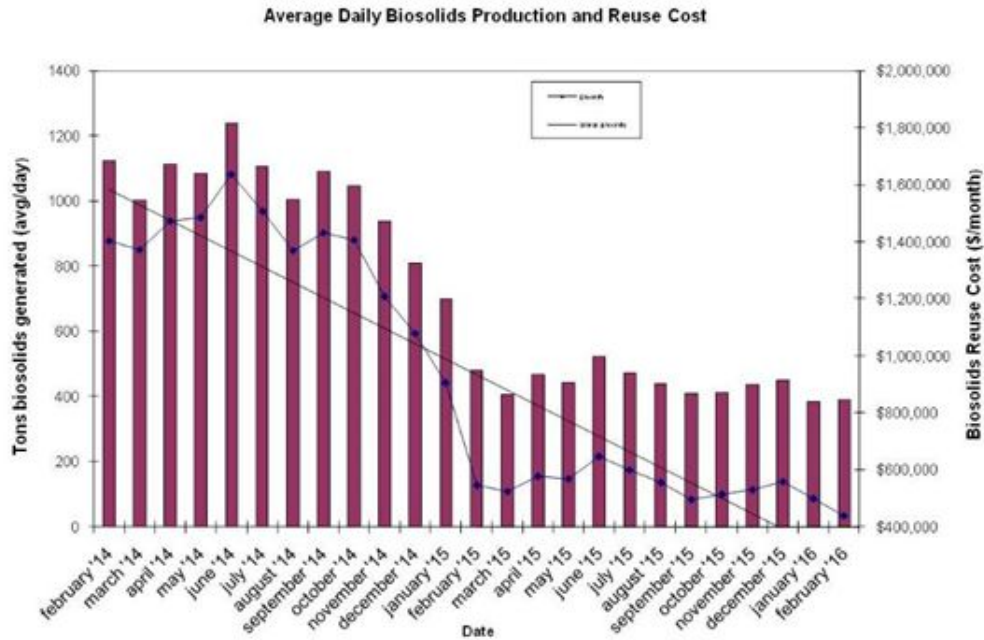
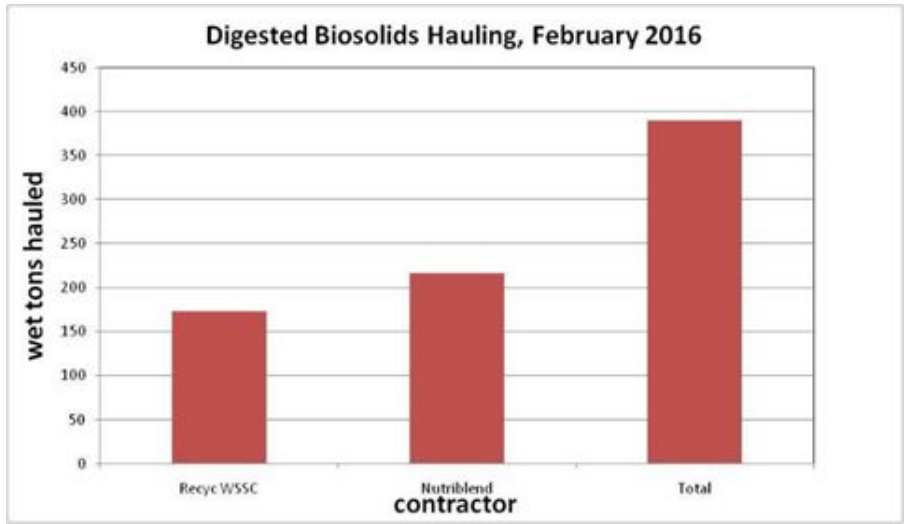


TN Removal at Blue Plains is on target to meet limits for 2016 as seen in the graph below.



**BLUE PLAINS RESOURCE RECOVERY REPORT – FEBRUARY 2016**

In February, biosolids hauling averaged 390 wet tons per day (wtpd). The graph below shows the total hauling by contractor for the month of February. The average percent solids for the digested material was 31.7%. At the end of February the Cumberland County storage pad had approximately 20,000 tons (~25,000 tons capacity), Cedarville lagoon had approximately 0 tons (~30,000 tons capacity), Goochland pad had 3394 tons (~5,000 tons capacity), and Fauquier lagoon had 9230 tons (~15,000 tons capacity) of Blue Plains biosolids.

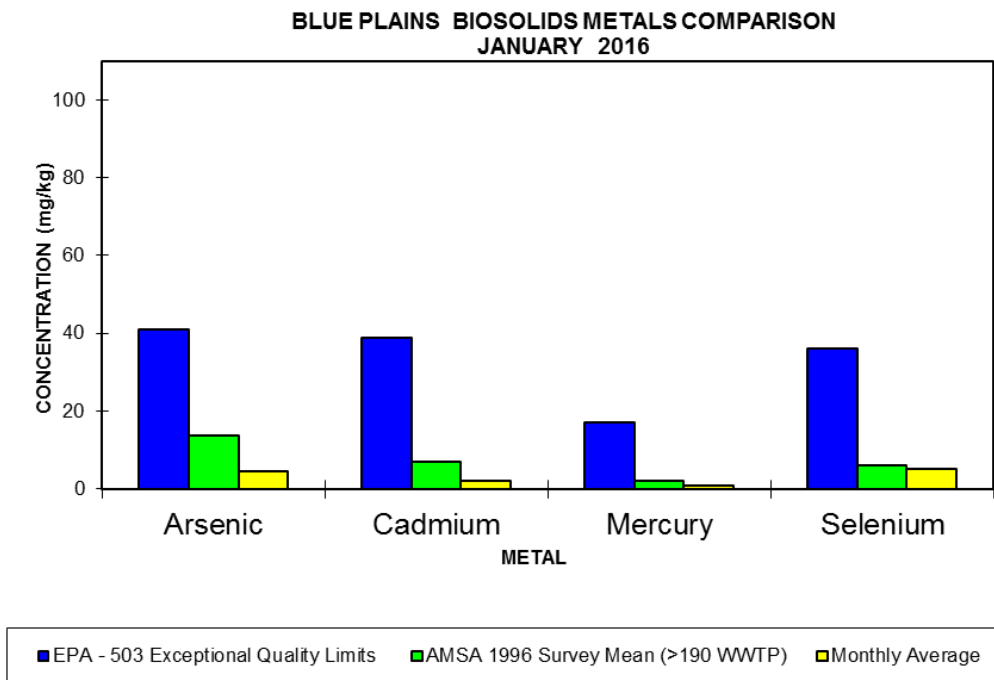




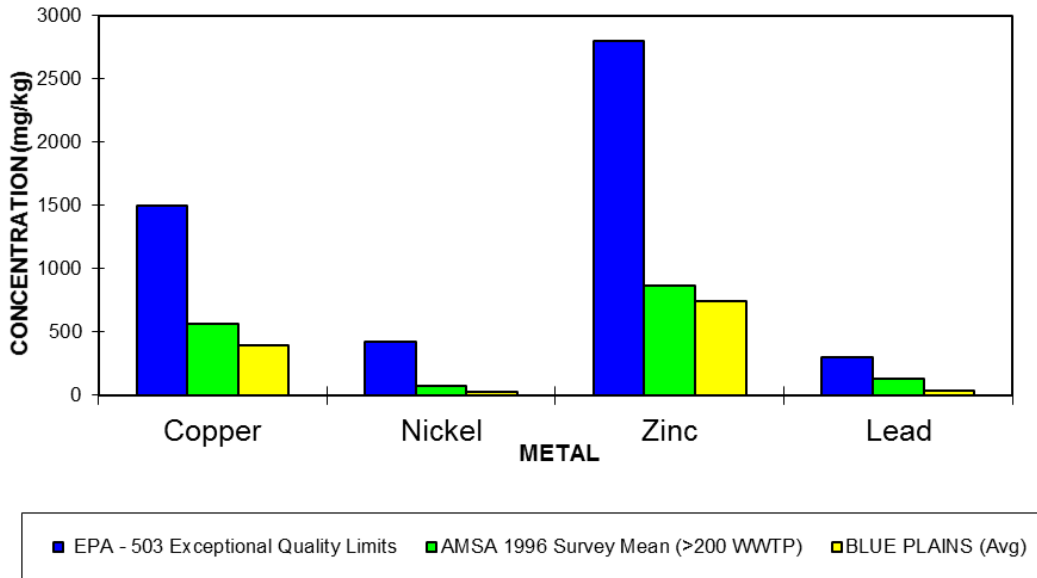
Please note the drop in biosolids production and management costs (shown on the chart titled Average Daily Biosolids Production and Reuse Cost (previous page) since the digesters came on line, and also due to the drop in fuel costs. In February, diesel prices averaged \$2.20/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost in February for the two contracts (DC Water and WSSC) was \$38.75/wet ton. For comparison, in February 2014 the average diesel price was \$3.22/gal and the average contract cost was \$41.72/wet ton.

### Product Quality

The graph below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of January 2016. As can be seen in the graphs, the monthly average metals concentration values for Blue Plains Biosolids are considerably below the EPA-503 regulated Exceptional Quality Limits and the AMSA national average levels surveyed in 1996.



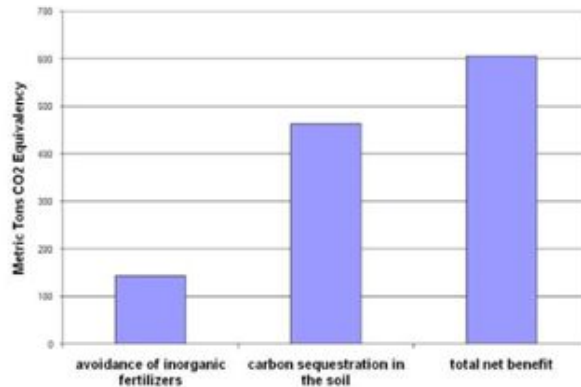
**BLUE PLAINS BIOSOLIDS METALS COMPARISON  
JANUARY 2016**



**Environmental Benefits**

The quantity land applied in January coming directly from the plant and from storage facilities equaled 9,153 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 636 metric tons CO<sub>2</sub> equivalent avoided emissions. This is equivalent to taking 1,295,737 car miles off the road in the month of January (assumes 20 mpg, 19.4 lb CO<sub>2</sub> equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since February, 2006 is 143,141 metric tons CO<sub>2</sub> equivalent.

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



## Other Biosolids Activities Highlights

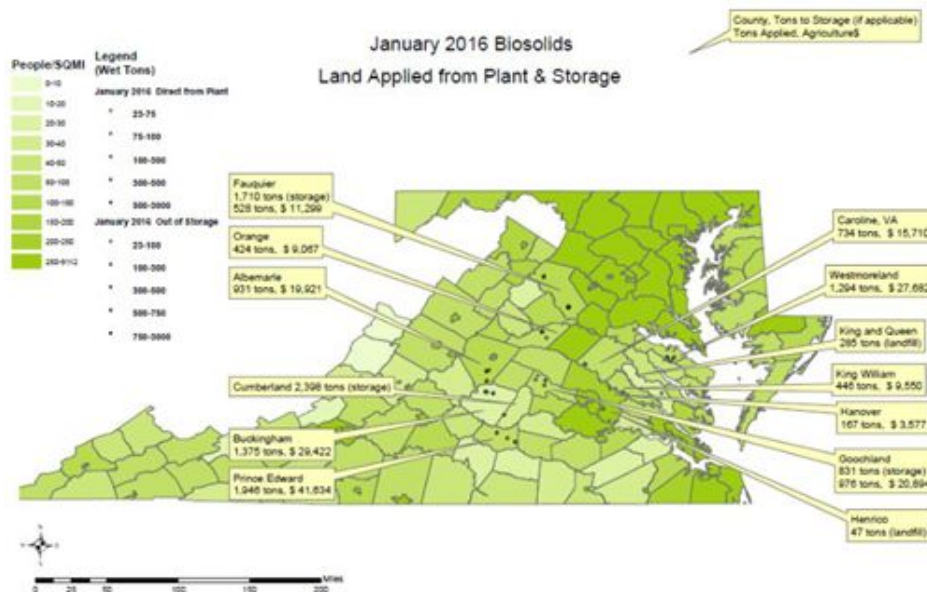
### Rooting DC 2016

Staff tabled and presented for the third consecutive year at the Rooting DC annual one-day forum for urban gardeners. The event served as a “soft launch” of Bloom for this influential audience. Most of the District’s food-growing organizations—school and community gardens, garden clubs, urban agriculture non-profits, tree advocates, for-profit gardening consulting firms, journalists, District government agencies—were represented. Staff gave away 150 sample bags of cured Bloom and marketing materials. Around 30 organizations signed a form expressing interest in receiving a delivery when all permits are in hand. The organizers of the event chose biosolids as one of the topics in the “Game Changers” session, featuring six other innovative organizations and initiatives in the District. DC Water designed a full-page advertisement for Bloom that was featured in the program pamphlet that went out to all of the more than 1,000 attendees.

### Bloom Videos

Staff finalized three videos promoting the use of Bloom biosolids products. The videos are available on the Bloom web ([www.bloomsoil.com](http://www.bloomsoil.com)). The three videos: (1) describe in general terms what Bloom accomplishes, (2) highlight the use of Bloom in urban gardening, and (3) answer commonly asked safety concerns. Please take a few minutes to click on the videos at the Bloom website.

### Biosolids Applications and Agricultural \$'s for January 2016



## **CLEAN WATER QUALITY AND TECHNOLOGY**

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

### **Research and Development Program**

The research and development team continues to work on research topics associated with the planning and operation of Blue Plains. The current focus of research is to optimize plant processes' capacities and to pave the road for achieving energy neutral operations at Blue Plains advanced wastewater treatment plant (Blue Plains AWTP).

The highlight for this month is a series of workshops associated with current research projects and engineering studies. These workshops were held during a visit from Dr. Bernhard Wett who is assisting DC Water with design and operation by providing guidance during test planning and interpretation of test data.

#### Jan. 11, 2016: Workshop #1 – High Rate Carbon Removal Process Control Strategies

The objective of this half-day workshop was to discuss the control strategies for the carbon removal process for the contact stabilizer configuration. During the workshop, the findings from the high rate process pilot and the potential for implementation of contactor/stabilizer process at full-scale were discussed. The strategies included the use of oxygen uptake rate measurements to determine the status of the process and the need to adjust operational parameters such as solids retention time and hydraulic retention time. The strategies will be evaluated in the pilot scale process to produce proper control algorithms.

#### Jan. 11, 2016: Workshop #2 – General AvN concept finalization

The objective of this half a day workshop was to finalize the concepts associated with generalizing the use of the AvN controller for shortcut nitrogen removal processes. The concept was discussed in detail and the modeling efforts to evaluate the controller under various operational scenarios were evaluated. The modeling was conducted by Dr. Pusker Regmi (Brown and Caldwell).

#### Jan. 12, 2016: Workshop #3 – Filtrate Treatment Startup Study

The objective of this workshop was to design a study to evaluate a startup strategy for the full-scale filtrate treatment process (aka Demon®). Because of the size of the Blue Plains system compared to that of existing plants operating similar filtrate treatment processes, the supply of anammox seed available to support commissioning is limited. A potential strategy for commissioning includes seeding of two reactors and operating them in DEMON mode while the remaining units would be operated in nitrite shunt mode (nitritation/denitritation). The study details were developed during the workshop and a list of questions was generated. A bench-scale study was initiated shortly after the workshop in the research and development laboratories and includes running two reactors to simulate both process configurations.

#### Jan. 14, 2016: Workshop #4 – Universal bioflocculation Model for Conditioning and Dewatering

The objective of this workshop was to develop a conceptual model describing bioflocculation mechanisms and the parameters associated with these mechanisms. A

list of observations associated with solids settling and dewatering using coagulants and flocculants was generated and discussed to come up with common drivers for these observations. Dr. Matthew Higgins of Bucknell University led the workshop and a group of students from Bucknell accompanied him. Among the participants were Dr. Charles Bott (HRSD), Dr. Chris Wilson (HRSD), Mr. Jeff Nicholson (HRSD), Dr. Bernhard Wett (ARA Consult), Dr. Bill Barber (AECOM), Dr. Sudhir Murthy (DC Water), Ms. Christine deBarbadillo (DC Water), Mr. Mahmudul Hasan (DC Water), Ms. Qi Zhang (DC Water), Mr. Ryu Suzuki (DC Water), Mr. Tim Van Winckel (DC Water), Dr. Haydee De Clippeleir (DC Water), and Mr. Ahmed Al-Omari (DC Water). This workshop resulted in the development of a WERF project proposal related to the impact of bio-P removal on dewaterability of digested sludge.

Jan. 12-13, 2016: Belt Filter Press Testing with Dr. Matthew Higgins (Bucknell University, PA)

Dr. Matthew Higgins of Bucknell University visited Blue plains AWTP to participate and provide guidance during an initial series of optimization tests for the final dewatering belt filter presses. The objective was to evaluate the impact of operational parameters such as belt speed, belt tension, loading rates, chemical addition and floc tank mixing on the presses performance. Performance was determined as cake dryness, filtrate quality and cake distribution on the belt. The test will be repeated frequently to collect enough data to make reliable conclusions.

**Blue Plains Main Laboratory**

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

This month, the laboratory continued the analysis of Belt Filter Press cake samples for fecal coliform bacteria for DCWater's Class A Biosolids reporting, as well as digester samples from the new Cambi Thermal Hydrolysis and Anaerobic Digestion facility, including Total and Volatile Solids, Total and Volatile Suspended Solids, Ammonia Nitrogen, and pH. Fecal coliform in the BFP dewatered cake and TS and VS upstream and downstream of the digestion process are monitored to show compliance with 40 CFR 503 Pathogen and Vector Attraction Reduction requirements. The laboratory continued the analysis of belt filter press dewatering cake samples in support of belt filter press optimization testing.

The Main Lab recently received the annual announcement from the USEPA concerning the commencement of their DMR-QA Study 36, which begins on March 18, 2016, and ends on July 1, 2016.

The laboratory also assists the Department of Sewer Services on a regular basis conducting microbiological analysis of water samples for E. Coli bacteria. Laboratory staff also participates in the WWOA Executive Board.

## **Blue Plains Pretreatment Program**

The Blue Plains Pretreatment Program staff of two manages the Industrial Pretreatment Program, including temporary dewatering 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 meeting.

### Industrial Pretreatment Program

DC Water currently manages fourteen (14) Significant Industrial User (SIU) permits and sixteen (16) Non-Significant Industrial User (NSIU) wastewater discharge permits. One NSIU permit was renewed this month for the George Washington University Hospital. The annual pretreatment program report to EPA was drafted for the District facilities this month. Once information is received from the jurisdictions and compiled, a final report will be issued to EPA prior to the March 31, 2016 due date.

DC Water received monthly self-compliance monitoring reports for six (6) SIUs and one NSIU. A Notice of Violation was issued to the Capitol Power Plant on January 29, 2016, for multiple short duration pH violations that occurred on January 14, 18, 20, and 25, 2016. Various issues were identified and corrected and summarized in their corrective action plan submitted on January 28, 2016. All other SIUs and NSIUs are in compliance with discharge standards for the current month.

DC Water currently manages 76 Temporary Discharge Authorization (TDA) permits, primarily for construction site discharges of groundwater and/or surface runoff in the combined sewer area. Eight new TDA permits were issued this month. All TDA discharges are currently in compliance with pretreatment standards.

### Hauled Waste Program

As of the end of the current month, the hauled waste program had 24 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 new hauler permit was issued this month and one permit was renewed. DC Water collected fees from eight waste haulers this month, including those on a monthly payment plan option.

DC Water received 465 hauled waste loads (1,173,580 gallons) from permitted haulers this month. Manifest forms from each truck entering the plant are collected by the security guards and picked up daily by Pretreatment staff. Data is entered into an Excel spreadsheet to track the volume and type of loads being discharged daily and the results of sampling. Two hauled waste samples were collected this month, both were grease trap waste samples. The grease trap waste sample collected from Storm Oil on January 5, 2016, violated the discharge standard for pH at 3.71 (limit is 5.0 to 10.0) and copper at 3.1 mg/L (limit is 2.3 mg/L). A Notice of Violation (NOV) was issued on January 13, 2016. The second grease trap sample collected from Spartan Sewer Raider on January 11, 2016, violated the discharge standard for pH at 4.44 (limit is 5.0 to 10.0) and total petroleum hydrocarbons (TPH) at 151 mg/L (limit is 100 mg/L). A Notice of Violation (NOV) was issued on January 28, 2016. No impact to the treatment plant was observed due to these exceedances.

NPDES Permit Sampling

Pretreatment staff collected bimonthly metals at outfall 002, which included low-level mercury using clean sampling techniques. Staff also collected two dry weather 24-hour composite samples at outfall 002 for low level PCB analysis using EPA Method 1668 this month. Staff also collected grit, screenings, and solids samples for TCLP analysis this month for landfill requirements.



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

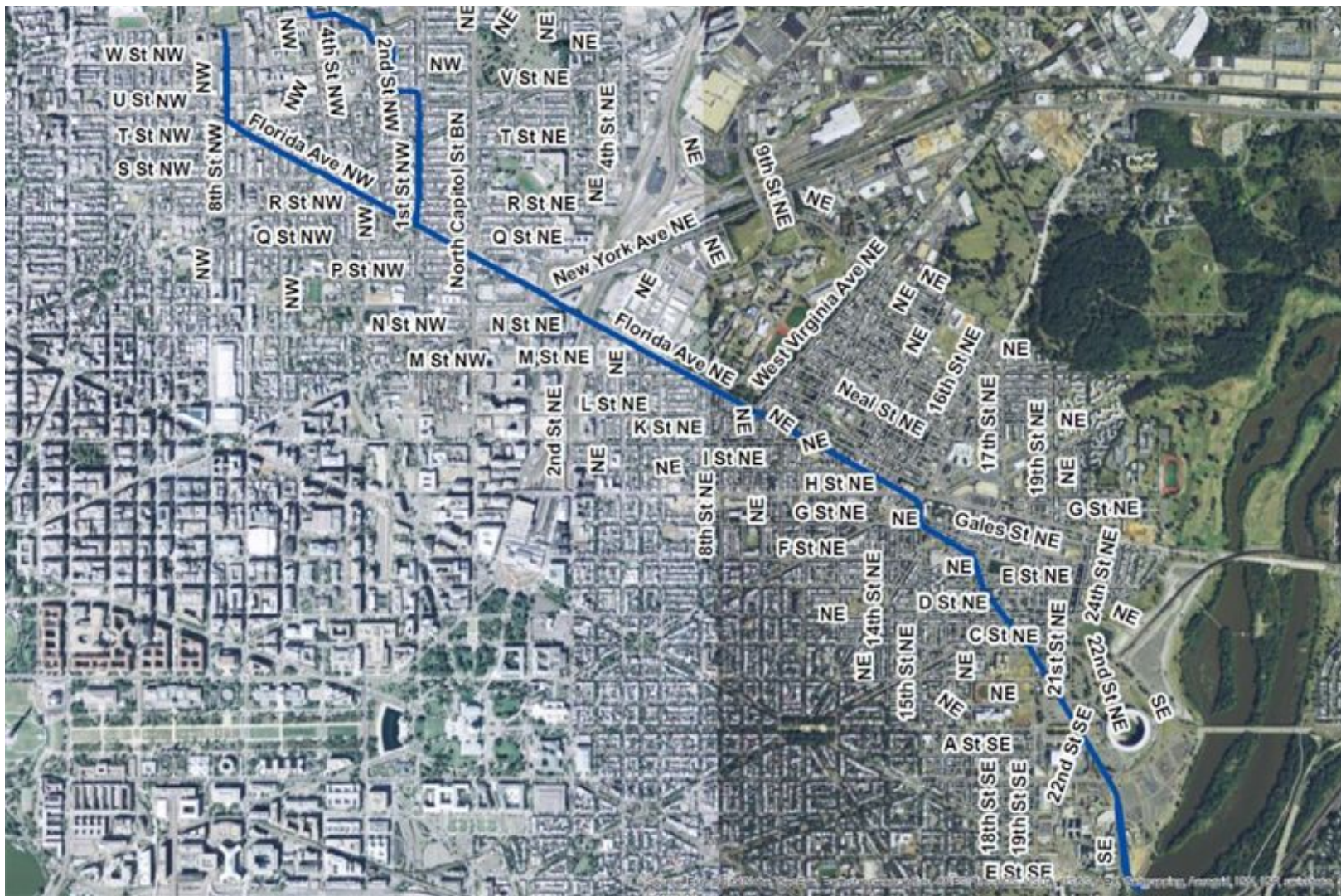
**IFB#160030**

**Northeast Boundary (NEB)**  
**Trunk Sewer-**  
**Specialized Inspection Services**

**Presented to:**  
**Environmental Quality and Sewerage**  
**Services Committee**  
Chairman: James Patteson

March 17, 2016





Starts at Howard University and ends at the Anacostia River



- Built around 1890
- Approximately 25,000 feet, mostly unreinforced brick masonry
- NEB varies in size from a 6' diameter circular sewer to a 22'x 24' horseshoe shape near the Anacostia River
- Previous failures have resulted in emergency repairs





## Concerns

### Key Concerns:

- 120 years old sewer
- Previous inspection shows areas of concern
  - 1744 D Street Building
  - Phase I inspection– September 2016 by Marine Technologies, Inc.
- May need to take immediate action to prevent structural failure(s)



water is life

## Specialized Inspection Services Required

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- CCTV using an array of high-definition cameras and extensive lighting
- Construct movable platforms of varying configurations
- Conduct non-destructive testing of the NEB brick masonry
- Provide divers and equipment to access sewer via existing manholes
- Prepare a report documenting all defects and recommendations



## Why Marine Technologies Inc. (MTI)

- MTI is uniquely qualified to safely and immediately provide specialized inspection because it:
  - Has familiarity with the NEB sewer- conducted Phase I reconnaissance
  - Has rigging equipment needed for accessing the NEB sewer
  - Has previously prepared and implemented successful traffic control and safety plans for NEB
  - Can construct movable platforms of varying configurations that are needed for this inspection



## Cost and Schedule

- Cost- \$2,500,000
- Schedule-
  - Anticipated NTP (~April 2016)
  - 9 months to complete (~January 2016)



## Northeast Boundary Sewer

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Questions?

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

**ACTION REQUESTED**

**GOODS AND SERVICES CONTRACT OPTION  
Supply and Delivery of Liquid Sodium Bisulfite  
(Joint Use)**

Approval to execute option year three (3) of the contract, for the supply and delivery of liquid sodium bisulfite, in the amount of \$500,000.00.

**CONTRACTOR/SUB/VENDOR INFORMATION**

|                                                                                           |                     |                              |
|-------------------------------------------------------------------------------------------|---------------------|------------------------------|
| <b>PRIME:</b><br>PVS Chemical Solutions, Inc.<br>10900 Harper Avenue<br>Detroit, MI 48213 | <b>SUBS:</b><br>N/A | <b>PARTICIPATION:</b><br>N/A |
|-------------------------------------------------------------------------------------------|---------------------|------------------------------|

**DESCRIPTION AND PURPOSE**

|                                         |                                |
|-----------------------------------------|--------------------------------|
| <b>Original Contract Value:</b>         | \$588,700.00                   |
| <b>Original Contract Dates:</b>         | 01-10-2013 - 01-09-2014        |
| <b>No. of Option Years in Contract:</b> | 4                              |
| <b>Modifications Value:</b>             | \$253,800.00                   |
| <b>Modifications Dates:</b>             | 01-10-2014 - 04-30-2016        |
| <b>Option Year 1 Value:</b>             | \$560,570.00                   |
| <b>Option Year 1 Dates:</b>             | 03-10-2014 - 03-09-2015        |
| <b>Option Year 2 Value:</b>             | \$597,100.00                   |
| <b>Option Year 2 Dates:</b>             | 03-10-2015 - 03-09-2016        |
| <b>Option Year 3 Value:</b>             | <b>\$500,000.00</b>            |
| <b>Option Year 3 Dates:</b>             | <b>05-01-2016 - 03-09-2017</b> |

**Purpose of the Contract:**

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

**Contract Scope:**

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

**Spending Previous Year:**

|                               |                                          |
|-------------------------------|------------------------------------------|
| Cumulative Contract Value:    | 01-10-2013 to 03-09-2016: \$2,000,170.00 |
| Cumulative Contract Spending: | 01-10-2013 to 01-30-2016: \$1,879,825.95 |

**Contractor's Past Performance:**

The contractor's past performance has been satisfactory.

No LSBE/LBE participation.

**Note:**

The option year 2 price of liquid sodium bisulfite (38% trade) was \$0.1881 per delivered pound. In accordance with Section E.6 of the contract, Price Escalation/De-escalation Adjustment, the price will be adjusted up or down based upon the price index changes for caustic soda, sulfur, and diesel fuel. Using the calculation method provided in the contract, the new price is \$0.1790/lb, which began with Modification 4.



**PROCUREMENT INFORMATION**

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

**BUDGET INFORMATION**

|                      |             |                         |                      |
|----------------------|-------------|-------------------------|----------------------|
| <b>Funding:</b>      | Operating   | <b>Department:</b>      | Wastewater Treatment |
| <b>Service Area:</b> | Blue Plains | <b>Department Head:</b> | Salil Kharkar        |

**ESTIMATED USER SHARE INFORMATION**

| User                                    | Share % | Dollar Amount       |
|-----------------------------------------|---------|---------------------|
| District of Columbia                    | 41.67%  | \$208,350.00        |
| Washington Suburban Sanitary Commission | 43.21%  | \$216,050.00        |
| Fairfax County                          | 10.45%  | \$52,250.00         |
| Loudoun County                          | 4.02%   | \$20,100.00         |
| Other (PI)                              | 0.65%   | \$3,250.00          |
| <b>TOTAL ESTIMATED AMOUNT</b>           |         | <b>100.00%</b>      |
|                                         |         | <b>\$500,000.00</b> |

 3/4/16  
 \_\_\_\_\_ Date  
 Dan Bae  
 Director of Procurement

 03/09/16  
 \_\_\_\_\_ Date  
 Gail Alexander-Reeves  
 Director of Budget

 3/7/2016  
 \_\_\_\_\_ Date  
 Akilile Tesfaye  
 Assistant General Manager, Blue Plains

\_\_\_\_\_  
 \_\_\_\_\_ Date  
 George S. Hawkins  
 General Manager

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

**ACTION REQUESTED**

**GOODS AND SERVICES CONTRACT OPTION YEAR  
Supply and Delivery of Sodium Hydroxide  
(Joint Use)**

Approval to exercise option year four (4) for the supply and delivery of sodium hydroxide in the amount of \$500,000.00.

**CONTRACTOR/SUB/VENDOR INFORMATION**

|                                                                                       |                     |                              |
|---------------------------------------------------------------------------------------|---------------------|------------------------------|
| <b>PRIME:</b><br>Univar USA, Incorporated<br>532 Emaus Street<br>Middletown, PA 17057 | <b>SUBS:</b><br>N/A | <b>PARTICIPATION:</b><br>N/A |
|---------------------------------------------------------------------------------------|---------------------|------------------------------|

**DESCRIPTION AND PURPOSE**

|                                |                                |
|--------------------------------|--------------------------------|
| Base Year Contract Value:      | \$510,400.00                   |
| Contract Base Period:          | 06-12-2012 – 05-31-2013        |
| Number of Option Years:        | 4                              |
| Modifications 1-3 Dates:       | 02-01-2013 – 05-31-2014        |
| Modifications 1-3 Total Value: | \$1,155,500.00                 |
| Option Year 1 Dates:           | 06-01-2013 – 05-31-2014        |
| Option Year 1 Value:           | \$536,000.00                   |
| Option Year 2 Dates:           | 06-01-2014 – 05-31-2015        |
| Option Year 2 Value:           | \$1,963,577.85                 |
| Option Year 3 Dates:           | 06-01-2015 – 05-31-2016        |
| Option Year 3 Value:           | \$400,000.00                   |
| <b>Option Year 4 Dates:</b>    | <b>06-01-2016 – 05-31-2017</b> |
| <b>Option Year 4 Value:</b>    | <b>\$500,000.00</b>            |

**Purpose of the Contract:**

To provide sodium hydroxide in 50% solution to the Blue Plains Advanced Wastewater Treatment Facility for the Department of Wastewater Treatment. Sodium hydroxide is used to control pH, a critical control parameter in the Biological Nitrogen Removal (BNR) unit of the wastewater treatment process. Sodium hydroxide is also used in the odor control scrubber.

**Contract Scope:**

To furnish and deliver sodium hydroxide in 50% solution. Option Year 4 pricing was negotiated to \$0.1325/lb, down 11.4% from the Option Year 3 price of \$0.1495/lb.

**Spending Previous Year:**

|                               |                                         |
|-------------------------------|-----------------------------------------|
| Cumulative Contract Value:    | 06-12-2012 – 05-31-2016: \$4,565,477.85 |
| Cumulative Contract Spending: | 06-12-2012 – 02-29-2016: \$3,881,803.92 |

**Contractor's Past Performance:**

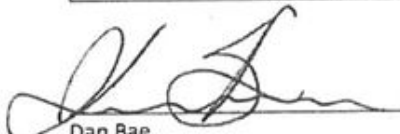
The vendor's performance has been satisfactory.

No LBE/LSBE participation.


| PROCUREMENT INFORMATION   |                                                        |                         |                                          |
|---------------------------|--------------------------------------------------------|-------------------------|------------------------------------------|
| <b>Contract Type:</b>     | Fixed Price Requirement Contract                       | <b>Award Based On:</b>  | Lowest responsive and responsible bidder |
| <b>Commodity:</b>         | Goods and Services                                     | <b>Contract Number:</b> | WAS-12-013-AA-SH                         |
| <b>Contractor Market:</b> | Open Market with LBE and LSBE Preference Participation |                         |                                          |

| BUDGET INFORMATION   |                  |                         |                      |
|----------------------|------------------|-------------------------|----------------------|
| <b>Funding:</b>      | Operating        | <b>Department:</b>      | Wastewater Treatment |
| <b>Service Area:</b> | Blue Plains AWTF | <b>Department Head:</b> | Salil Kharkar        |

| ESTIMATED USER SHARE INFORMATION        |         |                     |
|-----------------------------------------|---------|---------------------|
| User                                    | Share % | Dollar Amount       |
| District of Columbia                    | 41.67%  | \$208,350.00        |
| Washington Suburban Sanitary Commission | 43.21%  | \$216,050.00        |
| Fairfax County                          | 10.45%  | \$52,250.00         |
| Loudoun County & Potomac Interceptor    | 4.02%   | \$20,100.00         |
| Other (PI)                              | 0.65%   | \$3,250.00          |
| <b>TOTAL ESTIMATED DOLLAR AMOUNT</b>    |         | <b>100.00%</b>      |
|                                         |         | <b>\$500,000.00</b> |

 3/4/16  
 Dan Bae Date  
 Director of Procurement

 3/7/2016  
 Akilife Tesfaye Date  
 AGM, Blue Plains

 03/09/2016  
 Gail Alexander-Reeves Date  
 Director of Budget

\_\_\_\_\_/\_\_\_\_\_  
 George S. Hawkins Date  
 General Manager

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

**ACTION REQUESTED**

**GOODS AND SERVICES CONTRACT OPTION YEAR**

**Elevator Maintenance and Repair Services  
(Joint Use)**

Approval to exercise option year four (4) for Elevator Maintenance and Repair Services contract in the amount of \$146,668.00.

**CONTRACTOR/SUB/VENDOR INFORMATION**

|                                                                                                   |                     |                              |
|---------------------------------------------------------------------------------------------------|---------------------|------------------------------|
| <b>PRIME:</b><br>Collins Elevator Services, Inc.<br>800 Hamlin Street, NE<br>Washington, DC 20017 | <b>SUBS:</b><br>N/A | <b>PARTICIPATION:</b><br>N/A |
|---------------------------------------------------------------------------------------------------|---------------------|------------------------------|

**DESCRIPTION AND PURPOSE**

|                                  |                              |
|----------------------------------|------------------------------|
| Original Contract Value:         | \$210,160.00                 |
| Original Contract Dates:         | 01-20-2012—01-21-2013        |
| No. of Option Years in Contract: | 4                            |
| Option Year 1 Value:             | \$218,675.00                 |
| Option Year 1 Dates:             | 01-20-2013—01-21-2014        |
| Option Year 2 Value:             | \$220,000.00                 |
| Option Year 2 Dates:             | 01-20-2014 – 01-21-2015      |
| Option Year 3 Value:             | 240,845.00                   |
| Option Year 3 Dates:             | 01-20-2015 – 01-21-2016      |
| Modification Value:              | \$80,000.00                  |
| Modification Dates:              | 01-22-2016—05-31-2016        |
| <b>Option Year 4 Value:</b>      | <b>\$146,668.00</b>          |
| <b>Option Year 4 Dates:</b>      | <b>06-01-2016—01-21-2017</b> |

**Purpose of the Contract:**

To provide the District of Columbia Water and Sewer Authority (DC Water) with elevator maintenance, equipment replacement and repair services to include preventative maintenance repair, replacement and inspection of elevators, wheelchair lifts, commercial lifts and dumbwaiters located in DC Water facilities.

**Contract Scope:**

The contract provides for the full and complete preventative maintenance, repair, replacement and inspection of elevators (traction and hydraulic), wheelchair and commercial lifts, and dumbwaiters located at DC Water facilities.

**Spending Previous Year:**

|                               |                                        |
|-------------------------------|----------------------------------------|
| Cumulative Contract Value:    | 01-20-2012 to 05-31-2016: \$969,680.00 |
| Cumulative Contract Spending: | 01-20-2012 to 02-18-2016: \$582,754.24 |

**Contractor's Past Performance:**

The Contractor's past performance has been satisfactory.

No LBE/LSBE participation.

**PROCUREMENT INFORMATION**

|                           |                                                                   |                         |                  |
|---------------------------|-------------------------------------------------------------------|-------------------------|------------------|
| <b>Contract Type:</b>     | Fixed Price                                                       | <b>Award Based On:</b>  | Best Value       |
| <b>Commodity:</b>         | Services                                                          | <b>Contract Number:</b> | WAS-11-059-AA-RA |
| <b>Contractor Market:</b> | Open Market with Preference Points for LBE and LSBE Participation |                         |                  |

**BUDGET INFORMATION**

|                      |                  |                         |                |
|----------------------|------------------|-------------------------|----------------|
| <b>Funding:</b>      | Operating        | <b>Department:</b>      | Facilities     |
| <b>Project Area:</b> | Blue Plains AWTP | <b>Department Head:</b> | Johnnie Walker |

**ESTIMATED USER SHARE INFORMATION**

| User - Operating                        | Share %        | Dollar Amount      |
|-----------------------------------------|----------------|--------------------|
| District of Columbia                    | 41.67%         | \$33,336.00        |
| Washington Suburban Sanitary Commission | 43.21%         | \$34,568.00        |
| Fairfax County                          | 10.45%         | \$8,360.00         |
| Loudoun Water                           | 4.02%          | \$3,216.00         |
| Other (PI)                              | 0.65%          | \$520.00           |
| <b>TOTAL ESTIMATED DOLLAR AMOUNT</b>    | <b>100.00%</b> | <b>\$80,000.00</b> |

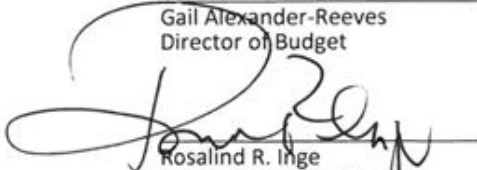
**ESTIMATED USER SHARE INFORMATION**

|                      |                  |                         |                |
|----------------------|------------------|-------------------------|----------------|
| <b>Funding:</b>      | Capital          | <b>Department:</b>      | Facilities     |
| <b>Project Area:</b> | Blue Plains AWTP | <b>Department Head:</b> | Johnnie Walker |

| User - Capital                          | Share %        | Dollar Amount      |
|-----------------------------------------|----------------|--------------------|
| District of Columbia                    | 41.54%         | \$27,693.06        |
| Washington Suburban Sanitary Commission | 45.26%         | \$30,173.03        |
| Fairfax County                          | 8.64%          | \$5,761.94         |
| Loudoun Water                           | 3.75%          | \$2,499.98         |
| Other (PI)                              | 0.81%          | \$539.99           |
| <b>TOTAL ESTIMATED DOLLAR AMOUNT</b>    | <b>100.00%</b> | <b>\$66,668.00</b> |

 3/11/16  
 Date  
 Dan Bae  
 Director of Procurement

 3/11/16  
 Date  
 Gail Alexander-Reeves  
 Director of Budget

 3/11/16  
 Date  
 Rosalind R. Inge  
 Assistant General Manager,  
 Support Services

\_\_\_\_\_  
 Date  
 George S. Hawkins  
 General Manager

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

**ACTION REQUESTED**

**CONSTRUCTION CONTRACT:**

**Inspection of Northeast Boundary Trunk Sewer  
(Non-Joint Use)**

Approval to execute a sole source construction contract for \$2,500,000.00.

**CONTRACTOR/SUB/VENDOR INFORMATION**

| <b>PRIME:</b>                                                                   | <b>SUBS:</b>                                                                  | <b>PARTICIPATION:</b> |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------|
| Marine Technologies, Inc.<br>6604 Fort Smallwood Road<br>Baltimore, MD<br>21226 | Stokit Supply Company, Inc<br>Randallstown, MD                      MBE       | 5.2%                  |
|                                                                                 | Ackerman & Baynes, LLC<br>Baltimore, MD                              WBE      | 2.0%                  |
|                                                                                 | Sunrise Safety Services, Inc.<br>Glen Burnie, MD                          WBE | 3.2%                  |

**DESCRIPTION AND PURPOSE**

|                                        |                                         |
|----------------------------------------|-----------------------------------------|
| Contract Value, Not-To-Exceed:         | \$2,500,000.00                          |
| Contract Time:                         | 183 Days            (0 Years, 6 Months) |
| Anticipated Contract Start Date (NTP): | 04-22-2016                              |
| Anticipated Contract Completion Date:  | 10-22-2016                              |

**Purpose of the Contract:**

To safely and expediently conduct a condition assessment of the Northeast Boundary Trunk Sewer, which ranges in size from 6 feet diameter to horseshoe-shaped 22'X24' unreinforced brick sewer.

**Contract Scope:**

- Inspect approximately 12,000 linear feet of sewer ranging from 6 feet to 10 feet in diameter using an array of high-definition cameras and extensive lighting, Sonic/Ultra Sonic and Ground Penetration Radar technologies.
- Inspect approximately 10,500 linear feet of sewer ranging from 10 feet to 22 feet in diameter using an array of high-definition cameras and extensive lighting technology.
- Inspect approximately 2,500 linear feet of horseshoe-shaped sewer 22 feet by 24 feet in size using an array of high-definition cameras and extensive lighting, Sonic/Ultra Sonic and Ground Penetration Radar technologies.
- Develop a condition assessment report that will establish the basis for the rehabilitation of the Northeast Boundary Sewer as appropriate.

**Federal Grant Status:**

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



**PROCUREMENT INFORMATION**

|                           |              |                         |             |
|---------------------------|--------------|-------------------------|-------------|
| <b>Contract Type:</b>     | Fixed Price  | <b>Award Based On:</b>  | Sole Source |
| <b>Commodity:</b>         | Construction | <b>Contract Number:</b> | 160030      |
| <b>Contractor Market:</b> | Open Market  |                         |             |

**BUDGET INFORMATION**

|                      |                |                         |                                    |
|----------------------|----------------|-------------------------|------------------------------------|
| <b>Funding:</b>      | Capital        | <b>Department:</b>      | Engineering and Technical Services |
| <b>Service Area:</b> | Combined Sewer | <b>Department Head:</b> | Liliana Maldonado                  |
| <b>Project:</b>      | FX             |                         |                                    |

**ESTIMATED USER SHARE INFORMATION**

| User                                    | Share %        | Dollar Amount          |
|-----------------------------------------|----------------|------------------------|
| District of Columbia                    | 100%           | \$ 2,500,000.00        |
| 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                |
| <b>Total Estimated Dollar Amount</b>    | <b>100.00%</b> | <b>\$ 2,500,000.00</b> |

 3/10/16  
 Gail Alexander-Reeves Date  
 Director of Budget

 3/10/16  
 Dan Bae Date  
 Director of Procurement

 3-9-16  
 Leonard R. Benson Date  
 Chief Engineer

\_\_\_\_\_/\_\_\_\_\_  
 George S. Hawkins Date  
 General Manager



# Enterprise IT Planning

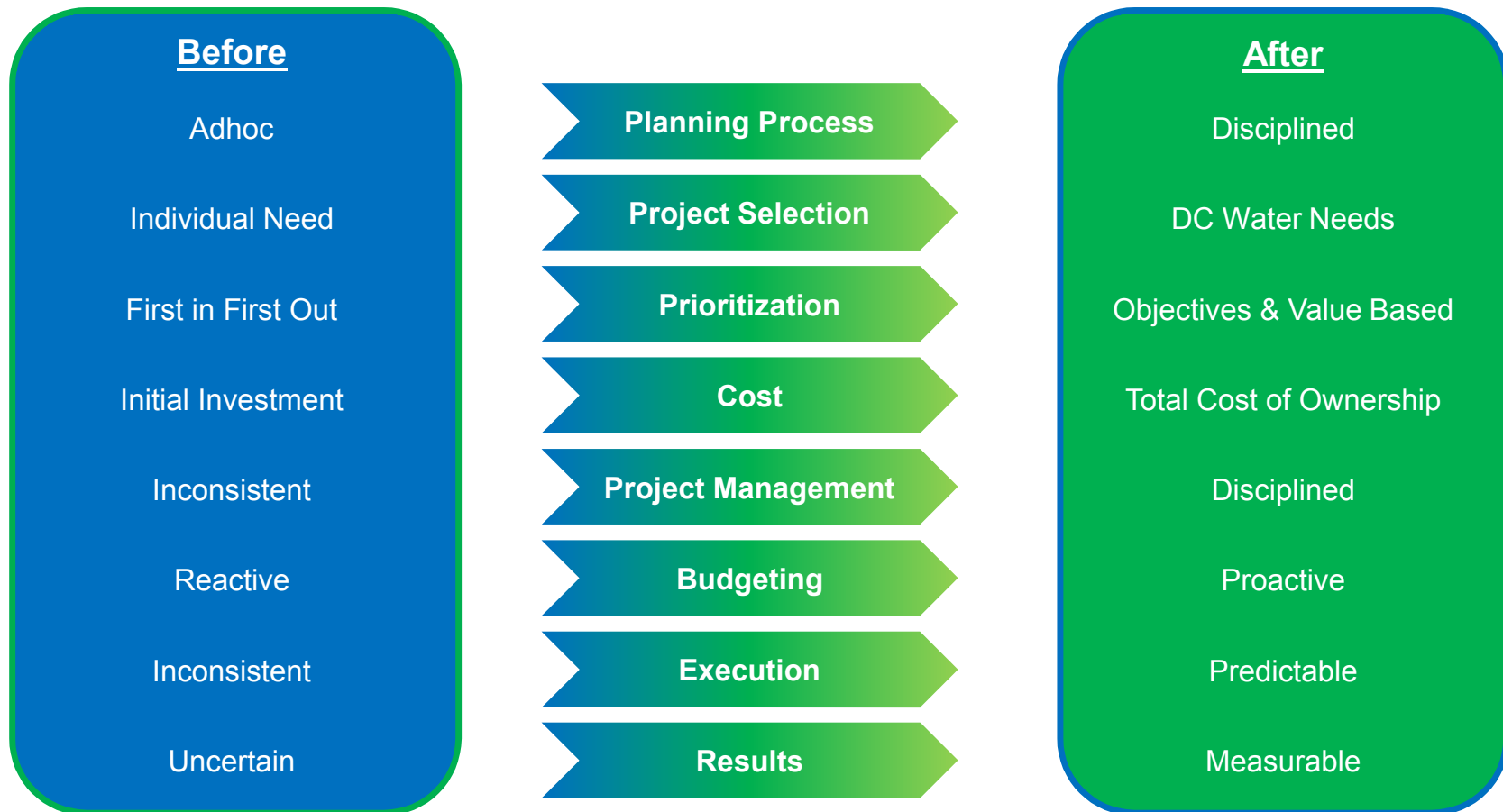
## Selecting & Prioritizing IT Investments





# Why IT Governance

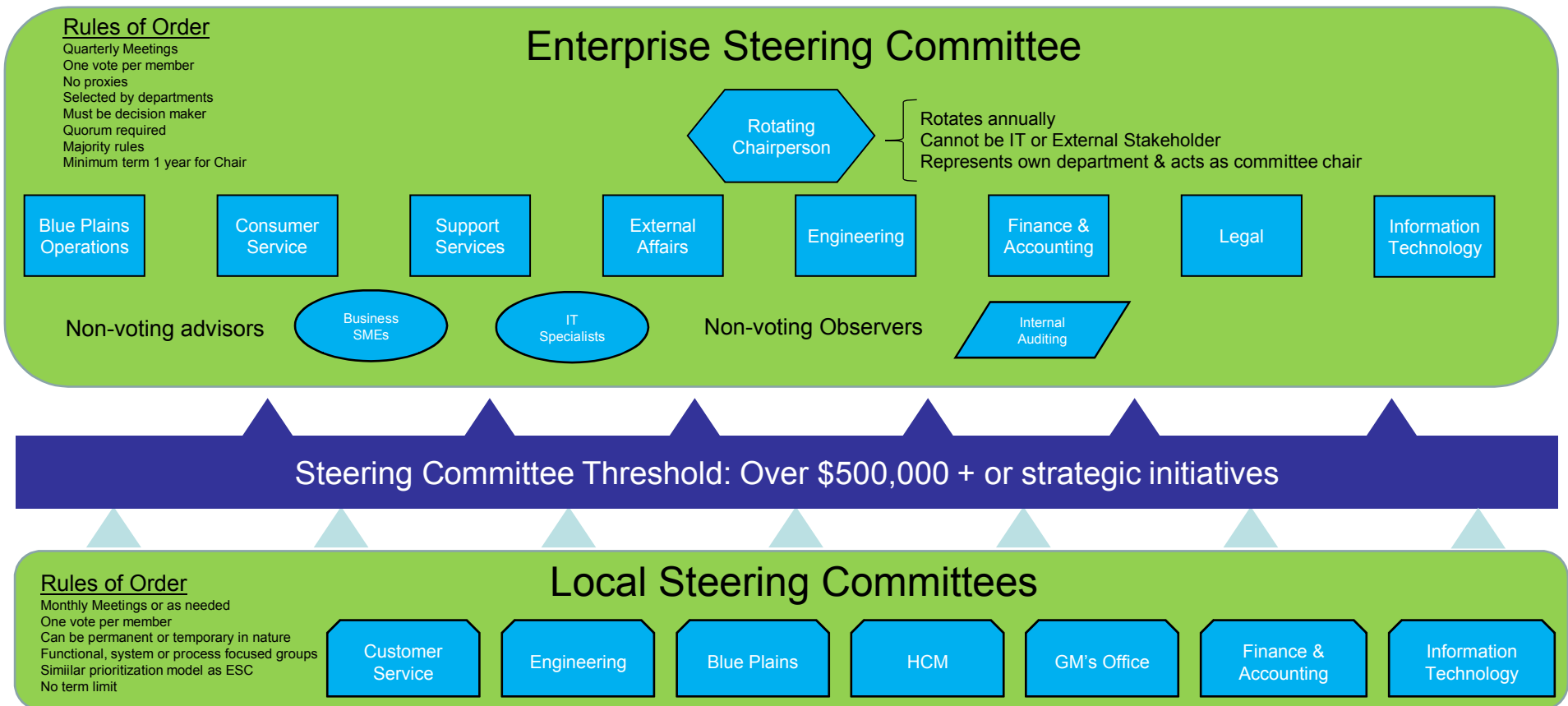
IT Governance is essential to ensure that resources are properly allocated to those initiatives that provide the greatest value in support of DC Water objectives. Poor IT Governance leads to uncertainty in planning, execution and results. DC Water has refined its IT Governance model to address this challenge.





# Enterprise IT Governance Process

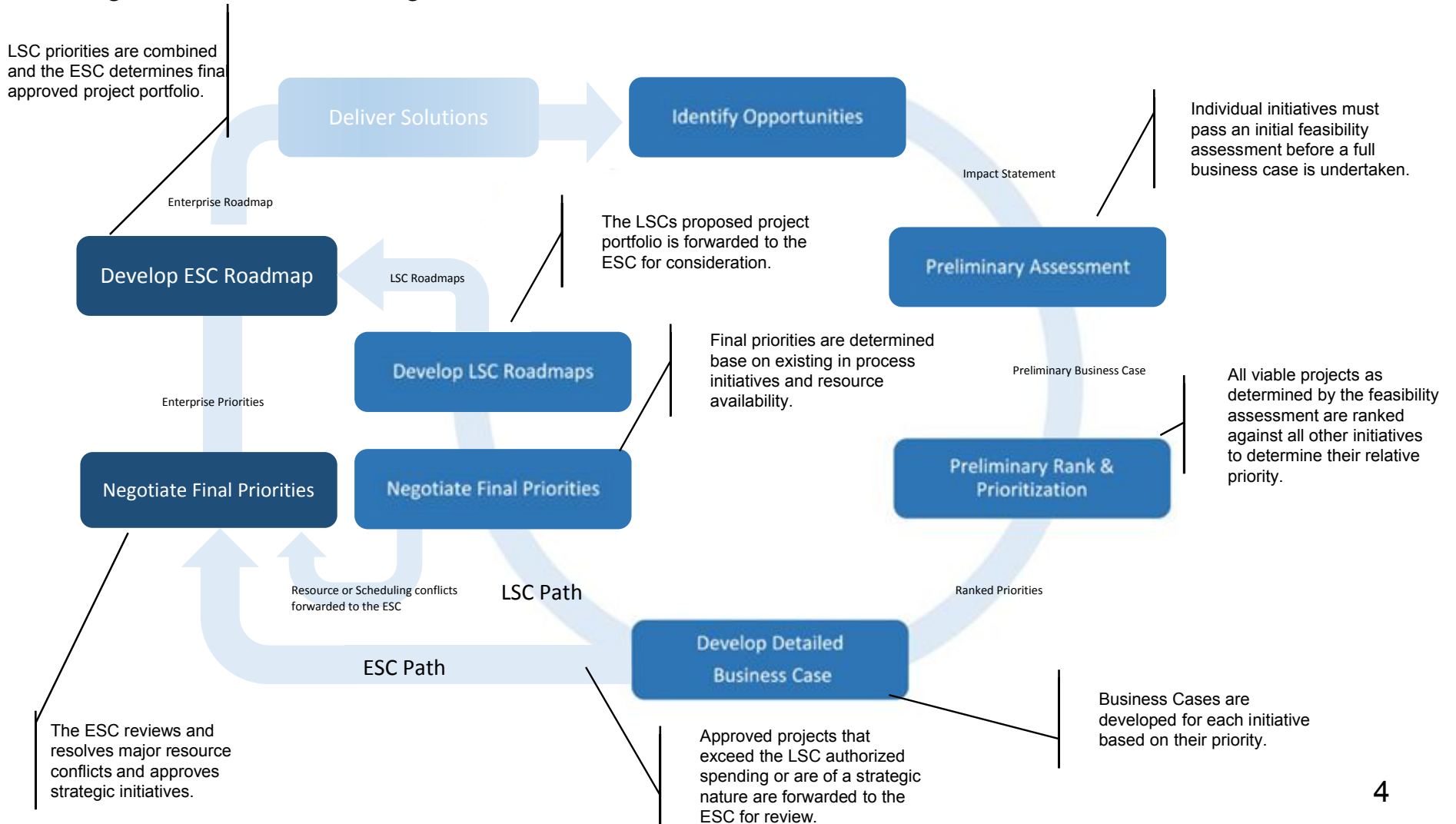
Enterprise IT Governance consists of an Executive Steering Committee (ESC) and Local Steering Committees (LSC) focused on specific areas of the business. Local Steering Committees help plan and manage demand while the Enterprise Steering Committee ensures alignment with DC Water goals and objectives.





# Enterprise IT Governance Process

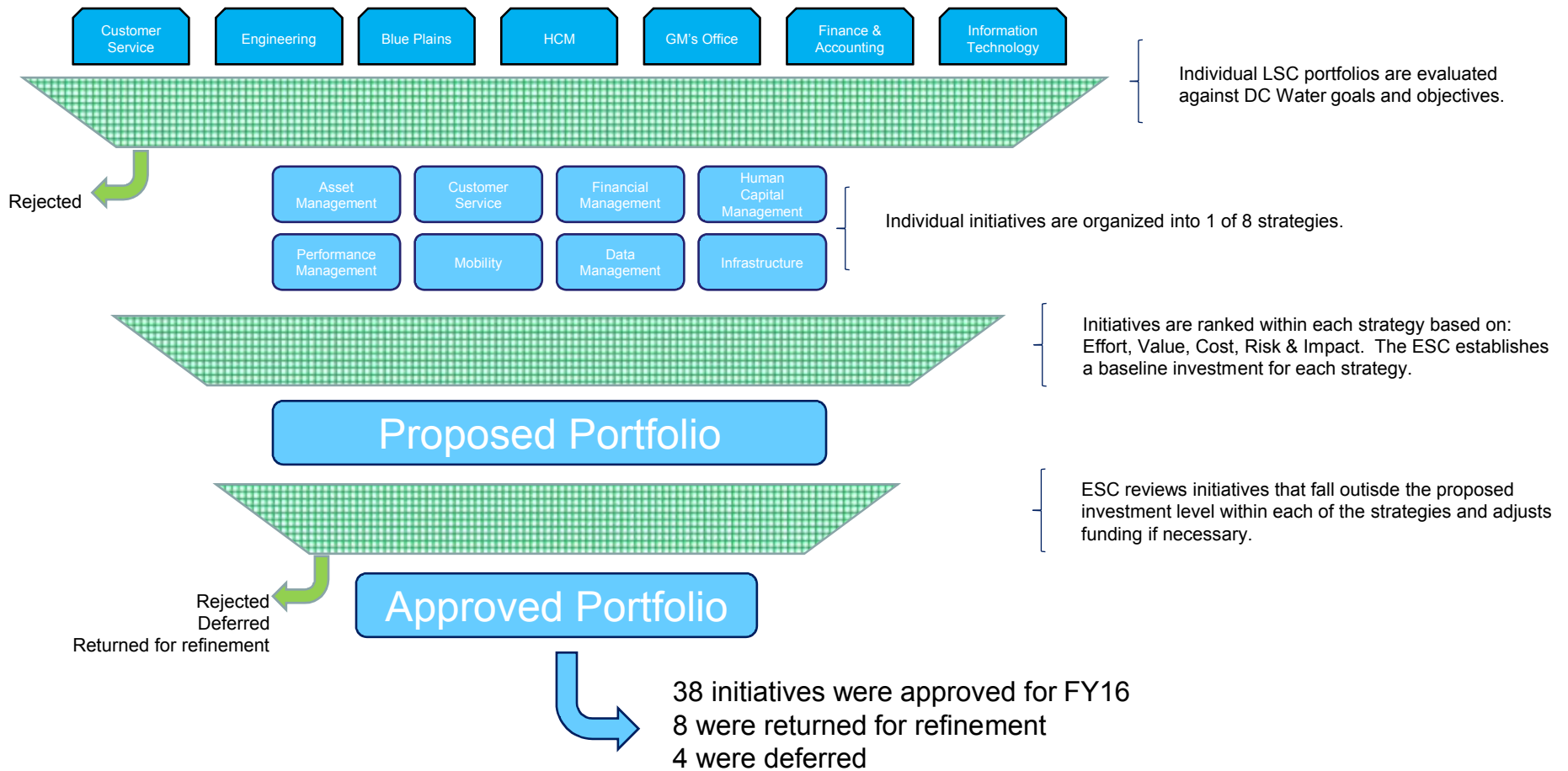
Individual initiatives are vetted by the Local Steering Committees and submitted to the Enterprise Steering Committee for funding.





# Achieving a Balanced Portfolio

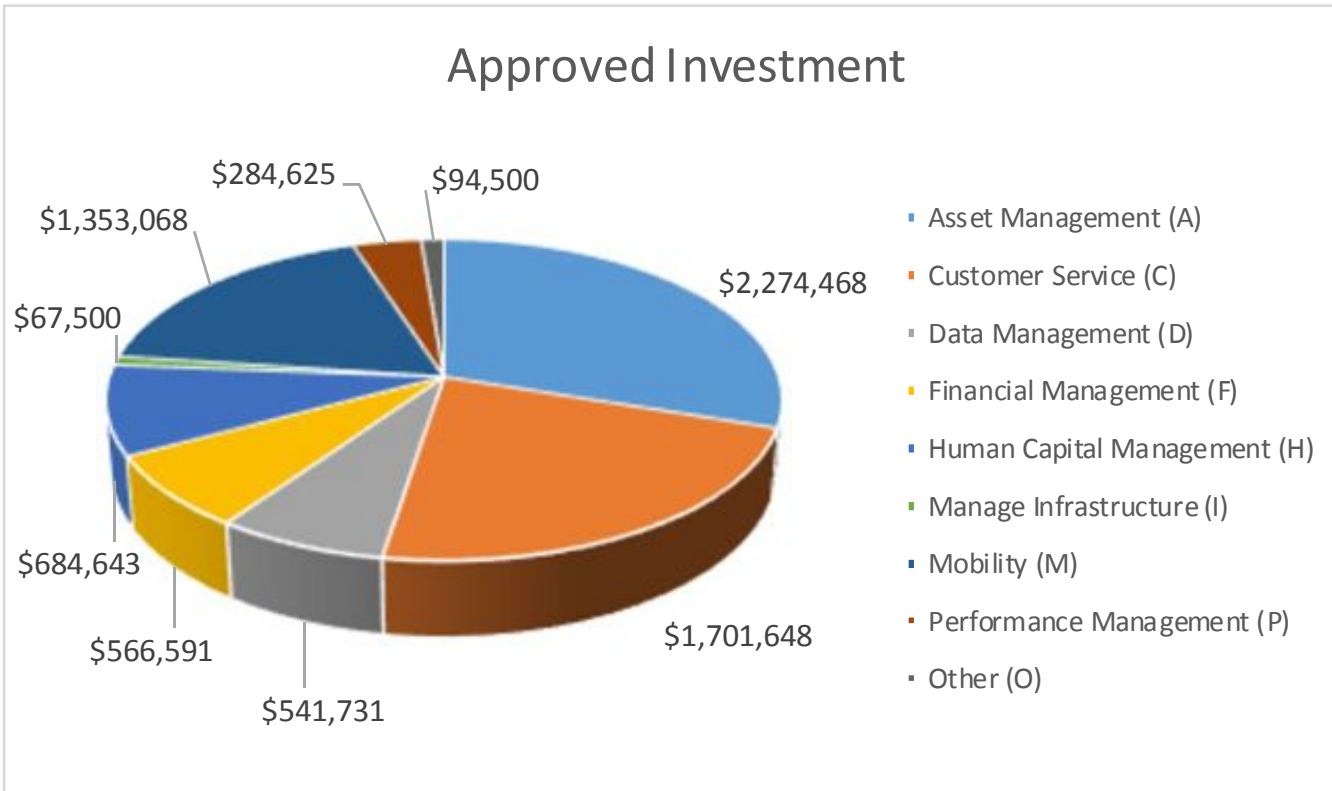
To become a “World-Class Water Utility” DC Water must achieve objectives across a wide range of strategies; many with dependencies between them. Balancing IT investments across these strategies is paramount to the success of the overall portfolio and achieving organizational objectives.





# Approved IT Investment Strategy

The ESC then determines an overall funding level based on the approved initiatives and allocates those funds to the individual portfolios. The total IT investment for FY16 is set at \$7.6 million, investments above this level require ESC approval.



| Investment Strategy      | % of budget |
|--------------------------|-------------|
| Asset Management         | 30%         |
| Customer Service         | 22%         |
| Mobility                 | 18%         |
| Human Capital Management | 9%          |
| Data Management          | 7%          |
| Financial Management     | 7%          |
| Performance Management   | 4%          |
| Other                    | 2%          |
| Manage Infrastructure    | 1%          |