I. Call to Order

9:30 a.m. II. AWTP Status Update

1. BPAWTP Performance

9:45 a.m. III. Wastewater Engineering Overview

Algynon Collymore

10:05 a.m. IV. Action Items

Len Benson

Joint Use

1. Contract No.: 130090 - Division Z – Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion, E.E. Cruz & Company, Inc.

Non-Joint Use

1. Contract No.: 190020 - Sanitary Sewer Lateral Replacement, Anchor Construction Corporation
2. Contract No.: 190030 - Lead Service Line Replacement, Anchor Construction Corporation
3. Contract No.: 190050 - Water Main Infrastructure Repair and Replacement, Fort Myer Construction Corporation.
4. Contract No.: 170130 - Soldiers’ Home Reservoir Upgrades, American Contracting & Environmental Services, Inc.

10:20 a.m. V. Water Distribution

Jason Hughes

1. Coliform Testing
2. LCR Compliance Testing
3. Fire Hydrant Upgrade Program
   a. Status Report of Public Fire Hydrants
   b. Out of Service Fire Hydrant Map
10:35 a.m.   VI. Other Business / Emerging Issues

10:40 a.m.   VII. Executive Session*

11:00 a.m.   VIII. Adjournment

Adam Ortiz
Chair

* 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. EVP, Ops & Engr, DC Water: Provide a briefing to the Committee regarding preventative and corrective maintenance programs on water, storm and sanitary sewer pump stations also including performance of DC Water’s SCADA system. [Target: September 2019]

2. Vice President, Wastewater Operations, DC Water: Provide an overall assessment of the CHP program with respect to its operating costs versus cost savings and revenue generated and present to the Committee during a future meeting. [Target: October 2019]

3. Vice President, Wastewater Operations, DC Water: Provide a presentation on the Advanced Wastewater Treatment Plant and Wet Weather Treatment Facility operating parameters and the flow split logic relative to the volume of CSO flow captured in the tunnels going through the AWWTP versus the WWTF. [Target: September 2019]

4. Manager, Green Infrastructure, DC Water: Conduct a robust discussion with the Committee regarding per/acre costs of developing, operating and maintaining grey vs. green infrastructure. [The Committee requested DCCR to return in 6 months to address this item. Target: December 2019]
Blue Plains Advanced Wastewater Treatment Plant

Performance Report

Environmental Quality and Operations Committee

July 18, 2019
Complete Treatment Performance

- Annual Average flow remained above 300 MGD since November 2018
- Plant performance was excellent with all effluent quality requirements well below or within the NPDES permit requirements
- The total pounds of nitrogen discharged in the complete treatment effluent is on track to remain below the NPDES permit discharge limit of 4,377,580 lbs. /year.
Wet Weather Treatment Facility Performance

- Since commissioning on March 20, 2018 and through June 2019 ~ 5,805 Million Gallons (MG) captured and treated
- Over 2,350 wet tons of trash, debris, and other solids removed

July 8, 2018 Wet Weather Event:
- Total precipitation at National Airport ~ 2.2" in less than an hour
- Tunnel volume ~120 MG
- Diversion start ~ 7/8 @ 8.55 AM (A)
- Tunnel filled ~7/8 @10:10 AM within 45 mins. of flows arriving at Blue Plains (B)
- Last diversion ~ 7/8 @ 6.60 PM (C)
- Tunnel emptied ~ 7/9 @4:45 PM after 22 hrs. from last diversion (D)
- Total captured volume ~170 MG
- Overflow ~ 50 MG (preliminary calculations; may change based on further data review and processing)
Class A Biosolids Quality

- Fecal Coliform values on daily process monitoring samples remained below 10 MPN/gram since May 7, 2019 and consistent with the low levels measured historically.
- None of the compliance samples analyzed by VELAP certified laboratory exceeded the 1,000 MPN/gram Class A limit.
Class A Biosolids Quality Bloom Marketing

- Root cause for elevated levels is associated with one of four anaerobic digesters
- Digester isolated on May 6, 2019
- Active measures taken to prevent recurrence
- Finalizing a plan to bring the digester back into operations

- In June, 5,389 tons marketed to bring the total for fiscal year to 31,500 or 79% of the 40,000 tons goal
- Goal for the remaining three months is 8,500 tons
Employee Training - WWTF

- Objective: Engage staff to learn process intent, operating philosophy, and control strategies
- Classroom and hands-on engagement
- Train-the-Trainer approach with front line supervisors as trainers
- Five sessions per employee
- 44 employees engaged

Process training for supervisors using participatory teaching methods

SWOT analysis and SMART Goal development with supervisors

Training for operators led by supervisors
Environmental Quality and Operations Committee - 9:30 a.m.

II. AWTP Status Update

Aklile Tesfaye

The Ammonia Nitrogen (NH₃-N) is a measurement of the nitrogen found in ammonia. The Total Phosphorus (TP) is a measurement of the phosphorus in the water. The Total Suspended Solids (TSS) is a measurement of the solid material that is suspended in the water.

Seasonal Limit: 0.1 mg/l, which is below the permitted limit. The 12-month sample average efficient fraction is 93%, indicating efficient operation of the plant.

The Ammonia Nitrogen (NH₃-N) has been below 0.5 mg/l for the month, with a maximum of 0.4 mg/l. The Total Phosphorus (TP) has been below 0.1 mg/l for the month, with a maximum of 0.05 mg/l. The Total Suspended Solids (TSS) has been below 5 mg/l for the month, with a maximum of 3 mg/l.

The graph illustrates the monthly average flow of the plant. The design average flow is 34 mgd, but the actual flow has been significantly lower, around 22 mgd. The plant is operating below its design capacity, which is good from an operational standpoint.

The following figures compare the plant performance with the corresponding NPDES permit limits. The following parameters are compared: solids removal, nitrogen removal, and phosphorus removal.

Average plant performance for the month of May 2019 was excellent, with all measured parameters well below the permitting limits.
Environmental Quality and Operations Committee - 9:30 a.m.

II. AWTP Status Update - Aklile Tesfaye

Dissolved Oxygen (DO) is a measure of the amount of oxygen dissolved in water. The minimum dissolved oxygen levels are 5 mg/L and 4 mg/L, respectively. The permit limit is 7.6 mg/L. The daily average DO reading for the month is below the permit limit. The minimum dissolved oxygen level observed was 2 mg/L. The maximum dissolved oxygen level was 7 mg/L. The average DO readings for the month are within the permit limits.

The pH is a measurement of acidity or the effluent. The minimum and maximum pH were observed were 6.2 and 6.6 standard units, respectively. The effluent COD concentration was 364 mg/L. The effluent COD concentration was regulated for the decomposition of organic materials. The minimum COD of the effluent was observed.
Environmental Quality and Operations Committee - 9:30 a.m. II. AWTP Status Update - Aklile Tesfaye

Parameters were below the weekly and monthly average NDEPBM Permit Limits. The daily average discharge through the complete treatment unit was 314 mgd (35 mgd normal) and as measured at the National Average precipitation (4.7 inches vs. normal of 3.9 inches) during the month of May 2019, the Washinton Metropolitan Region received above normal rainfall. Impact on plant performance...
River

River sediment was removed. That would otherwise have been discharged into the receiving water during the same period. 2.85 million gallons of screenings and grit (trench system) were handled through the WWTP.

Tunnel Systems and the WWTP’s Status in March 20. 2018: Including the wet weather events that occurred in March 2018. The quality of the effluent discharged at the WWTP (Aklile Tesfaye) was consistent with the commissioning of the first section of the Rancocas River and the DEP-approved limits. Since the commissioning of the first section of the Rancocas River and the DEP-approved limits, the WWTP has treated approximately 7.6 billion gallons of CSO, and all CSOs (or a portion of it) is disinfected at the WWTP. The quality of the effluent discharged at the WWTP is consistent with the commissioning of the first section of the Rancocas River, and all CSOs (or a portion of it) is disinfected at the WWTP.

During the month of May, a total of 310.5 million gallons (MG) of CSO captured in the tunnel system were pumped and treated using the ECF. A portion of the treated flow of CSO discharged through the WWTP (Aklile Tesfaye) was consistent with the commissioning of the first section of the Rancocas River and the DEP-approved limits. Since the commissioning of the first section of the Rancocas River and the DEP-approved limits, the WWTP has treated approximately 7.6 billion gallons of CSO, and all CSOs (or a portion of it) is disinfected at the WWTP. The quality of the effluent discharged at the WWTP is consistent with the commissioning of the first section of the Rancocas River, and all CSOs (or a portion of it) is disinfected at the WWTP.

Performance

Aerial Rendering of the Wet Weather Treatment Facility

Site Description

The Wet Weather Treatment Facility (WWTF) at Blue Plains.
Influent flow has exceeded 300 MGD since November 2018. While for any given month the flow is weather dependent, the 12-month rolling average shows a long-term influent flow trend to the plant ending May 2019.

Blue Plains Advanced Wastewater Treatment Plant
Annual Total Nitrogen Discharge, lbs/year

TN Discharge, million lbs/year

January 2012 - May 2019

 Annual TN Discharge
 Chesapeake Bay Goal and Permit Limit

The graph below shows total annual nitrogen discharge in million pounds per year. Over the eight-year period ending May 2019, the monthly average TN concentration and total pounds in the complete treatment effluent were 3.25 mg/L and 24.71 lbs, respectively.
The chart below shows the monthly value of the net electricity exported by CHP by Aklile Tesfaye.

The graph above is based on power monitors installed at the Main Substation and CHP.

The remaining 531 MWh/day was purchased from PECO. In May 2019, the average energy consumed at Blue Plains was 66 megawatt hours per day (MWh/day) or 24 MWh of electricity per million gallons of wastewater processed.
DC Water Participation in the PJM Voluntary Curtailment Program

One component of the DC Water electric bill is a Demand Charge which is assessed each month throughout the PJM billing year. June through September 30, a Demand Charge of $6.50 per kilowatt hour is applied to the next year’s bill. Also, a demand charge is applied for the PJM peak period occurring June 1 through September 30. The Demand Charge is calculated by multiplying the peak demand above the PJM load forecast by the sum of the average demand for each of the PJM peak period. PJM’s Demand Charge is the average of the highest megawatt usage occurring in the PJM peak period. Our plant has been participating in the PJM peak period for several years and has achieved savings of about fifty to seventy thousand dollars each year. We anticipate that we may achieve savings of about sixty thousand dollars this year. We will evaluate the results achieved upon receipt of all the actual information from PJM.

Aklile Tesfaye

Environmental Quality and Operations Committee - 9:30 a.m. II. AWTP Status Update - Aklile Tesfaye
The average quarterly Class A biosolids transported and applied on farms by the three contractors (WSSC's, ReCyC, DC Waters, Minitrend, and American) and the quantities transported are shown on the graph above. In May, 5,369 wet tons of biosolids were distributed to 15 customers.

Considering the marketed material was $3.7/ton, the weighted average biosolids revenue cost for the three-year period ending May 2019 was $3.7/ton. The graph below shows average daily biosolids hauling May 2019.
Product Quality

- **Metals**
  - All biosolids produced during the month of May met Class A Exceptional Quality (EQ) requirements. The graph below shows the EPA regulated heavy metals concentrations in the biosolids. The concentrations are considerably below the regulated exceptional quality limits (EPA-503 Exceptional Quality Limits) and the national average (EPA-2008 Survey Average).

### Blue Plains Biosolids Metals Comparison

<table>
<thead>
<tr>
<th>Metal</th>
<th>Concentration (mg/kg)</th>
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<tbody>
<tr>
<td>Arsenic</td>
<td>20</td>
</tr>
<tr>
<td>Cadmium</td>
<td>40</td>
</tr>
<tr>
<td>Mercury</td>
<td>60</td>
</tr>
<tr>
<td>Selenium</td>
<td>80</td>
</tr>
<tr>
<td>Copper</td>
<td>1,000</td>
</tr>
<tr>
<td>Nickel</td>
<td>1,500</td>
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<tr>
<td>Zinc</td>
<td>2,000</td>
</tr>
<tr>
<td>Lead</td>
<td>2,500</td>
</tr>
</tbody>
</table>

**EPA - 503 Exceptional Quality Limits**

**EPA - 2008 Survey Average**
of developing a final plan to bring the digester back into operation.

The digester was isolated on May 6, 2019 and the Authority is in the process of determining the root cause for the elevated levels of fecal coliform. DC Water has determined the root cause for the elevated levels of fecal coliform in March.

DC Water has determined the root cause for the elevated levels of fecal coliform in March.

Since May 7, 2019, fecal coliform values in daily biosolids cake samples analyzed by DC Water Laboratory, have remained below 10 MPN/g with MPN/g below 500.

The results of all compliance samples have been within limits and met the Virginia Environmental Laboratory Accreditation Program (VELAP) certification requirements for Class A, with all results below 10 MPN/g. A few samples exceeded the Class A limit. Either MPN/g requirement for Class A, or 10 MPN/g requirement for Class A, have been exceeded in recent months.

DC Water is working on reducing the digester's effluent and improving the process, which has resulted in reduced levels of fecal coliform.

Fecal Coliform Results: February - June 2019
Environmental Quality and Operations Committee - 9:30 a.m.

II. AWTP Status Update - Aklile Tesfaye

Bloom Marketed - FY2019

Year:
- Bloom marketng resumed on May 21, 2019 after two weeks of non-detected results.

Progress to date, the Authority achieved 69% percent of the 40,000 tons goal.

Bloom marketng resumed on May 7, 2019. During the month, 5,389 tons was marketed.

The total for the fiscal year is 31,500 tons or 79% of the 40,000 tons goal.

Achieving the marketing goals for the fiscal year.
were in compliance with discharge criteria.

Water Quality and Pretreatment

were in compliance with discharge criteria. Two new pretreatment permits were issued this month and results

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Environmental Quality and Operations Committee - 9:30 a.m.

II. AWTP Status Update

Aklile Tesfaye

Revenues generated under the Hauled Waste Program:

<table>
<thead>
<tr>
<th>FY (Oct-May)</th>
<th>Revenue Posted</th>
<th>Cash Received</th>
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</thead>
<tbody>
<tr>
<td>FY 2019-2020</td>
<td>$923,077.77</td>
<td>$80,988.98</td>
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<tr>
<td>FY 2020-2021</td>
<td>$2,392,860.99</td>
<td>$96,142.43</td>
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<tr>
<td>FY 2021-2022</td>
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<tr>
<td>FY 2022-2023</td>
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<td>$96,142.43</td>
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<tr>
<td>FY 2023-2024</td>
<td>$2,392,860.99</td>
<td>$96,142.43</td>
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<tr>
<td>Total</td>
<td>$8,434,428.89</td>
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</tr>
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</table>

The following revenue (revenues and receivables (cash)) occurred this month for

Hauled Waste Volume - May 2019
Presentation to the Environmental Quality and Operations Committee
July 18, 2019
Adam Ortiz, Chair

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Leonard Benson, Sr. Vice President and Chief Engineer
I. People
II. Mission
III. Functions
IV. Initiatives and Projects
Department of Wastewater Engineering

Fifteen engineers and technicians who perform planning, program management, project management, design, construction inspection
DC Water's Vision:

*Exceed expectations by providing high quality water services in a safe, environmentally friendly, and efficient manner.*

DC Water's Mission:

*We will be known for superior service, ingenuity and stewardship to advance the health and well-being of our diverse workforce and communities.*

Department of Wastewater Engineering’s Mission:

*Plan and deliver a capital improvement plan that supports DC Water’s Vertical Assets, including the Advanced Wastewater Treatment Plant at Blue Plains, and support the Chief Engineer on Metropolitan Council of Governments and Intermunicipal Agreement issues.*
Department of Wastewater Engineering Functions

Department of Wastewater Engineering Functions – Program Branch
- Provide staff support for environmental policy issues affecting DC Water
- Technical and policy coordination with other jurisdictions and federal agencies
- Develop and maintain long-term facility planning process
- Provide engineering data for development and maintenance of the Capital Improvement Plan (CIP)
- Generate bid documents for construction and rehabilitation projects
- Review and approve PCS, SCADA and I&C engineering documents for compliance with established guidelines and standards
- Manage the Engineering responsibilities for all PCS and SCADA related projects from planning, design, construction, commissioning and operational support.
- Coordinate with all DC Water user and customer groups/Departments on all SCADA, PCS, and I&C matters
- Explore new technologies that can be used to increase operational efficiency of our wastewater treatment, sewer collection and water distribution systems.

Department of Wastewater Engineering Functions – Construction Branch
- Administer contracts for construction management, new construction, major repairs, modifications and start-up to the Blue Plains Advanced Wastewater Treatment Plant
- Perform design reviews and coordinate construction work with other departments at Blue Plains
Initiatives

Capital Cost Reduction
- Transition to in-house resources for design management and construction management
- New Program Management Contract Procurement with reduced scope
- Extend asset life
- Alternative contracting mechanisms (power purchase, on-call construction contracts)
- Design with efficient O&M features

O&M Cost Reduction
- Energy Efficiency
- Reduce Chemical Use
- Automation
- Design with efficient O&M features

Wastewater Treatment Service Area Annual Spending

- CIP Spending
- Projected Program Management Spending
- PM contract expenditure
Construction at Blue Plains AWTP

- **Gravity Thickener Upgrades Phase II**
  - $60M construction
  - NTP September 2019

- **Filter Influent Pumps 1-10**
  - $18M construction
  - NTP August 2019

- **Miscellaneous Facilities Upgrades 6**
  - $25M construction
  - NTP July 2019
  - Includes refurbishment of raw wastewater influent screens
Projects in Design for Blue Plains

**COF Switchgear Replacement**
- Replace obsolete switchgear in COF building
- Switchgear has reached the end of its useful lives
- Maintenance complicated by lack of spare parts
- Construction estimate at $12 million
- Advertise Construction August 2020

**High and Low Pressure PSW Pump Systems**
- Upgrade the High and Low Pressure Process Service Water pumping systems
- Upgrades necessary to meet projected demand, to provide redundancy in the system and to correct pump intake hydraulics
- Pumps have reached the end of their useful lives and are prone to failure.
- Construction estimate of $10 million
- Advertise Construction July 2020

**Screens, Grit and Primary Facilities Upgrades (aka Headworks Electrical Upgrades)**
- Upgrades and improvements to power distribution and instrument and control
- Equipment has reached the end of useful life due to continuous exposure in corrosive environment
- Cost Estimate at $15 million
- Construction Start - April 2021
Wastewater Pump Stations

- Rock Creek PS
- Potomac PS
- 3rd ST & Constitution Ave. PS
- Upper Anacostia PS
- East Side PS
- Poplar Point PS
- Earl Place PS
- Main PS
- O Street PS

Environmental Quality and Operations Committee - 9:45 a.m. III. Wastewater Engineering Overview - Algynon Collymore
Design and Construction Underway at Blue Plains AWTP – Solar Panels

Rendering of solar array atop the Central Maintenance Facility roof

Power Purchase Agreement

Provider designs, permits and installs the system
- DC Water purchases power
- 4MW Commercial Operation 2020
- Agreement includes design for phase 2 for an additional 8 MW
- Negotiation for phase 2 to begin in Fall 2019
Wastewater Pump Stations

1. Main* (240 MGD, storm 400 MGD)
2. Potomac* (460 MGD)
3. O Street* (45 MGD, storm 500 MGD)
4. East Side* (45 MGD)
5. 3rd & Constitution (2.9 MGD)
6. Earl Place (0.43 MGD)
7. Upper Anacostia (10 MGD)
8. Rock Creek (50 MGD)
9. Poplar Point* (55 MGD)

*Required firm capacity under the Nine Minimum Controls section of the Three Party Consent Decree & NPDES Permit
Stormwater Pump Stations

Environmental Quality and Operations Committee - 9:45 a.m. III. Wastewater Engineering Overview - Algynon Collymore
Stormwater Pump Stations

1. 1st Street & Canal Street SW (2.9 MGD)
2. Portland Street SE (2.2 MGD)
3. 9th Street and D Street SW (15.8 MGD)
4. 1st Street & D Street SW (23 MGD)
5. Scott Circle NW (3.6 MGD)
6. Thomas Circle NW (2.9 MGD)
7. 14th Street Bridge SW (14.4 MGD)
8. Deane Avenue NE (24.5 MGD)
9. Kenilworth Ave NE (5 MGD)
10. 12th Street and Maine Avenue SW (2.2 MGD)
11. 23rd Street and Virginia Avenue NW (2.2 MGD)
12. Virginia Avenue and New Hampshire Avenue NW (10.4 MGD)
13. 26th Street and K Street NW (19.6 MGD)
14. 9th Street and Madison Drive NW
15. Eastern Avenue NW (5.8 MGD)
16. 12th Street and Constitution Avenue NW (2.2 MGD)
Wastewater Pump Station

Potomac PS - before

Piping segment leaking at failed flange

Failed stop log chamber

Seal water system (failing)
Wastewater Pump Station

Potomac PS - after

Repairs to Stop Log Chamber

Repaired piping segment

New Seal Water Pump Skid and Controls
### Stormwater Pump Station

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<tbody>
<tr>
<td><strong>Station Capacity (MGD)</strong></td>
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<tr>
<td><strong>Number of Pumps</strong></td>
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<td>1</td>
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<tr>
<td><strong>Pump capacity (MGD)</strong></td>
<td>2.9</td>
<td>0.29</td>
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<tr>
<td><strong>HP of Pump</strong></td>
<td>60</td>
<td>7.5</td>
</tr>
</tbody>
</table>

**Ist St & Canal St**

*before*

- Flooded Dry Well
- Temporary emergency pump
- Pumps with leaking seal

*Environmental Quality and Operations Committee - 9:45 a.m. III. Wastewater Engineering Overview - Algynon Collymore*
Stormwater Pump Station

1st St & Canal St -after

New Pumps and Piping Installed
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET

ACTION REQUESTED

CONSTRUCTION CONTRACT CHANGE ORDER:
Division Z – Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion (Joint Use)

Approval to execute Change Order No. 04 for $4,375,785.00. The modification exceeds the Chief Executive Officers approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

<table>
<thead>
<tr>
<th>PRIME:</th>
<th>SUBS:</th>
<th>PARTICIPATION:</th>
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<tbody>
<tr>
<td>E.E. Cruz &amp; Company, Inc.</td>
<td>None MBE participation</td>
<td>0.0%</td>
</tr>
<tr>
<td>32 Avenue of the Americas, 13th Floor New York, NY 10013</td>
<td>None WBE participation</td>
<td>0.0%</td>
</tr>
<tr>
<td>Headquarters New York, NY 10013</td>
<td></td>
<td></td>
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</table>

DESCRIPTION AND PURPOSE

Original Contract Value: $53,452,275.00
Value of this Change Order: $4,375,785.00
Cumulative CO Value, including this CO: $4,375,785.00
Current Contract Value, Including this CO: $57,828,060.00
Original Contract Time: 835 Days (2 Years, 4 Months)
Time extension, this CO: 840 Days
Total CO contract time extension: 888 Days (2 Years, 5 Months)
Contract Start Date (NTP): 01-15-2015
Anticipated Contract Completion Date: 10-04-2019
Cumulative CO % of Original Contract: 8.19%
Contract completion %: 96.25%

Purpose of the Contract:
Provide the construction of Division Z – Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion in support of the DC Clean Rivers Project.
This work is required by a Consent Decree.

Original Contract Scope:
• Construct the Poplar Point Pumping Station
• Construct the Anacostia Main Interceptor Diversion Sewer
• Construct the Barry Road Replacement Sewer
• Construct the Main Outfall Sewers Diversion Chamber

Previous Change Order Scope:
• Change Order 01 extended Substantial Completion and Contract Completion Dates by total of 11 calendar days due to delays incurred during the September 2015 Papal Visit and January 2016 Winter Storm Jonas.
• Change Order 02 extended Substantial Completion and Contract Completion Dates by 37 calendar days due to delay incurred during Archeological Investigation Phase III work.
• Change Order 03 transferred $952,965.00 in Allowance funds to Bid Item No. 4 Additional Work from Bid Item No. 3, 6 and 9.

Current Change Order Scope:
• Agreed settlement of unexecuted Changes and resolution of all claims on the Contract.
## PROCUREMENT INFORMATION

<table>
<thead>
<tr>
<th>Contract Type:</th>
<th>Fixed Price</th>
<th>Award Based On:</th>
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## BUDGET INFORMATION

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<th>Capital</th>
<th>Department:</th>
<th>DC Clean Rivers</th>
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<tbody>
<tr>
<td>Service Area:</td>
<td>Combined Sewer Overflow</td>
<td>Department Head:</td>
<td>Carlton M. Ray</td>
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<tr>
<td>Project:</td>
<td>CY, G1</td>
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## ESTIMATED USER SHARE INFORMATION

### CY – Anacostia LTCP – Poplar Point Allocation [MJ20]

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<th>User</th>
<th>Share %</th>
<th>Dollar Amount</th>
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<tbody>
<tr>
<td>District of Columbia</td>
<td>90.00%</td>
<td>$3,493,277.10</td>
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<tr>
<td>Federal Funds</td>
<td>0.00%</td>
<td>$</td>
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<tr>
<td>Washington Suburban Sanitary Commission</td>
<td>10.00%</td>
<td>$388,141.90</td>
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<td>Fairfax County</td>
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<td>$</td>
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<tr>
<td>Loudoun County &amp; Potomac Interceptor</td>
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<td>$</td>
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<tr>
<td><strong>Total Estimated Dollar Amount</strong></td>
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</table>

### CY – Anacostia LTCP – Main Outfall Diversion Allocation [GIBP]

<table>
<thead>
<tr>
<th>User</th>
<th>Share %</th>
<th>Dollar Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>41.22%</td>
<td>$189,443.41</td>
</tr>
<tr>
<td>Federal Funds</td>
<td>0.00%</td>
<td>$</td>
</tr>
<tr>
<td>Washington Suburban Sanitary Commission</td>
<td>45.84%</td>
<td>$210,676.51</td>
</tr>
<tr>
<td>Fairfax County</td>
<td>8.38%</td>
<td>$38,513.73</td>
</tr>
<tr>
<td>Loudoun County &amp; Potomac Interceptor</td>
<td>4.56%</td>
<td>$29,957.35</td>
</tr>
<tr>
<td><strong>Total Estimated Dollar Amount</strong></td>
<td>100.00%</td>
<td><strong>$459,591.00</strong></td>
</tr>
</tbody>
</table>

### G100 – Small Local Sewer Rehab – Barry Rd Allocation [CAPM]

<table>
<thead>
<tr>
<th>User</th>
<th>Share %</th>
<th>Dollar Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>100.00%</td>
<td>$34,775.00</td>
</tr>
<tr>
<td>Federal Funds</td>
<td>0.00%</td>
<td>$</td>
</tr>
<tr>
<td>Washington Suburban Sanitary Commission</td>
<td>0.00%</td>
<td>$</td>
</tr>
<tr>
<td>Fairfax County</td>
<td>0.00%</td>
<td>$</td>
</tr>
<tr>
<td>Loudoun County &amp; Potomac Interceptor</td>
<td>0.00%</td>
<td>$</td>
</tr>
<tr>
<td><strong>Total Estimated Dollar Amount</strong></td>
<td>100.00%</td>
<td><strong>$34,775.00</strong></td>
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</tbody>
</table>

### Combined

<table>
<thead>
<tr>
<th>User</th>
<th>Share %</th>
<th>Dollar Amount</th>
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</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>84.96%</td>
<td>$3,717,495.51</td>
</tr>
<tr>
<td>Federal Funds</td>
<td>0.00%</td>
<td>$</td>
</tr>
<tr>
<td>Washington Suburban Sanitary Commission</td>
<td>13.68%</td>
<td>$598,818.41</td>
</tr>
<tr>
<td>Fairfax County</td>
<td>0.88%</td>
<td>$38,513.73</td>
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<tr>
<td>Loudoun County &amp; Potomac Interceptor</td>
<td>0.48%</td>
<td>$29,957.35</td>
</tr>
<tr>
<td><strong>Total Estimated Dollar Amount</strong></td>
<td>100.00%</td>
<td><strong>$4,375,785.00</strong></td>
</tr>
</tbody>
</table>

* Eligible for Federal Appropriation Funding. Appropriation funding is insufficient to fund all eligible contracts. Federal Appropriation Funding may be used if additional funding becomes available or if other eligible projects are postponed.

---

Leonard R. Benson  
Senior Vice President, Chief Engineer  
Date: 9-11-19

Dan Bae  
VP of Procurement and Compliance  
Date: 7-12-19

Matthew T. Brown  
CFO and EVP of Finance and Procurement  
Date: 7-11-19

David L. Gadis  
CEO and General Manager  
Date: 7-12-19

130090 – Fact Sheet- Div Z Popular Point Pumping Station Replacement - CO4  
Prepared July 01, 2019
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET

ACTION REQUESTED

CONSTRUCTION CONTRACT:
Sanitary Sewer Lateral Replacement Contract for FY20 – FY22
(Non-Joint Use)

Approval to execute a construction contract for $9,971,935.00

CONTRACTOR/SUB/VENDOR INFORMATION

<table>
<thead>
<tr>
<th>PRIME:</th>
<th>SUBS:</th>
<th>PARTICIPATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor Construction Corporation</td>
<td>S&amp;J Services, Inc.</td>
<td>MBE 29.9%</td>
</tr>
<tr>
<td>2254 25th Place NE</td>
<td>Hyattsville, MD</td>
<td></td>
</tr>
<tr>
<td>Washington, DC 20018</td>
<td>AJK Enterprise LLC</td>
<td>MBE 2.2%</td>
</tr>
<tr>
<td>MBE</td>
<td>Washington, DC</td>
<td></td>
</tr>
<tr>
<td>R&amp;R Contracting Utilities, Inc.</td>
<td>Olney, MD</td>
<td>WBE 3.8%</td>
</tr>
<tr>
<td>Acorn Supply &amp; Distributing</td>
<td>White Marsh, MD</td>
<td>WBE 2.3%</td>
</tr>
</tbody>
</table>

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed: $9,971,935.00
Contract Time: 1,095 Days (3 Years)
Anticipated Contract Start Date (NTP): 10-01-2019
Anticipated Contract Completion Date: 09-30-2022
Bid Opening Date: 05-29-2019
Bids Received: 3
Other Bids Received
  Fort Myer Construction Company $13,874,435.00
  Sagres Construction Corporation $21,058,642.60

Purpose of the Contract:
To provide Indefinite Delivery and Indefinite Quantity (IDIQ) emergency and scheduled repairs to the sewer lateral system on an as-needed basis during normal work hours, after-hours, weekends, and holidays. This Contract allows DC Water to strategically utilize a combination of in-house and contractor crews to respond to emergency conditions impacting the sewer lateral system and address scheduled system rehabilitation work as needed.

Contract Scope:
- Emergency Repair Work of Sanitary Sewer Laterals
- Chemical Root Treatment of Sanitary Sewers
- Sewer Lateral Reinstatement Connection to CIPP Main
- Sewer Lateral Liner - CIPP
- Sewer Lateral CCTV Inspection
- General Cleaning of Sewer Laterals
- Replace/Extend/Reconnect Building Sewer Lateral/Connection Pipe 4-Inch thru and including 12-inch Diameter PVC
- Add or Replace Building Sewer Cleanout Pipe
- Add or Replace Street Wye or Thimble with Wye Saddle
- Any other contingent items that are deemed necessary
Federal Grant Status:
- Construction Contract is not eligible for Federal grant funding assistance.

**PROCUREMENT INFORMATION**

<table>
<thead>
<tr>
<th>Contract Type:</th>
<th>Unit Price</th>
<th>Award Based On:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity:</td>
<td>Construction</td>
<td>Lowest responsive, responsible bidder</td>
</tr>
<tr>
<td>Contractor Market:</td>
<td>Open Market</td>
<td>Contract Number: 190020</td>
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</tbody>
</table>

**BUDGET INFORMATION**

<table>
<thead>
<tr>
<th>Funding:</th>
<th>Capital</th>
<th>Department:</th>
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</thead>
<tbody>
<tr>
<td>Service Area:</td>
<td>Sanitary</td>
<td>Sewer Services</td>
</tr>
<tr>
<td>Project:</td>
<td>JI, LN, M9</td>
<td>Department Head: Dunbar C Regis</td>
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</tbody>
</table>

**ESTIMATED USER SHARE INFORMATION**

<table>
<thead>
<tr>
<th>User</th>
<th>Share %</th>
<th>Dollar Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>100.00%</td>
<td>$9,971,935.00</td>
</tr>
<tr>
<td>Federal Funds</td>
<td>0.00%</td>
<td>$0.00</td>
</tr>
<tr>
<td>Washington Suburban Sanitary Commission</td>
<td>0.00%</td>
<td>$0.00</td>
</tr>
<tr>
<td>Fairfax County</td>
<td>0.00%</td>
<td>$0.00</td>
</tr>
<tr>
<td>Loudoun County &amp; Potomac Interceptor</td>
<td>0.00%</td>
<td>$0.00</td>
</tr>
<tr>
<td><strong>Total Estimated Dollar Amount</strong></td>
<td>100.00%</td>
<td><strong>$9,971,935.00</strong></td>
</tr>
</tbody>
</table>

**Leonard R. Benson**

July 12, 2019
Leonard R. Benson, SVP and Chief Engineer

**Dan Bae**

July 12, 2019
Dan Bae, VP
Procurement and Compliance

**Matthew T. Brown**

July 12, 2019
Matthew T. Brown, CFO and EVP
Finance and Procurement

David L. Gadis
CEO and General Manager

190020 Sanitary Sewer Lateral Replacement Contract for FY20 – FY22 - Fact Sheet
Prepared: July 12, 2019
CONSTRUCTION CONTRACT:
Lead Service Line Replacement Contract FY20-FY22
(Non-Joint Use)

Approval to execute a construction contract for $7,289,400.00

CONTRACTOR/SUB/VENDOR INFORMATION

<table>
<thead>
<tr>
<th>PRIME:</th>
<th>SUBS:</th>
<th>PARTICIPATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor Construction Corp.</td>
<td>Acorn Supply and Distribution Inc.</td>
<td>WBE 6.0%</td>
</tr>
<tr>
<td>2254 25th Place NE</td>
<td>White March, MD</td>
<td></td>
</tr>
<tr>
<td>Washington, DC 20018</td>
<td>S and J Services Inc.</td>
<td>MBE 32.0%</td>
</tr>
<tr>
<td>MBE</td>
<td>Hyattsville, MD</td>
<td></td>
</tr>
</tbody>
</table>

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed: $7,289,400.00
Contract Time: 1,095 Days (3 Years)
Anticipated Contract Start Date (NTP): 10-01-2019
Anticipated Contract Completion Date: 09-30-2022
Bid Opening Date: 06-05-2019
Bids Received: 3
Other Bids Received:
- Capitol Paving Inc. $7,456,000.00
- Fort Myer Corp. $9,134,600.00

Purpose of the Contract:
To provide Indefinite Delivery and Indefinite quantity (IDIQ) of lead service line replacements and temporary pavement restoration at various locations within the District of Columbia. The contract will also consist of providing private property side agreements and documentation. Scopes of work will be developed and issued to the contractor on a task order basis as needed by DC Water.

Contract Scope:
- Remove and replace existing lead service lines.
- Install new copper service line from corporation stop to building.
- Installation of Meter Boxes, Frame and Covers.
- Replace Water Service lines.
- Installation of Curb Stop and Curb Stop Box.
- Private side tie-in and negotiation / coordination with homeowners.

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

PROCUREMENT INFORMATION

<table>
<thead>
<tr>
<th>Contract Type:</th>
<th>Unit Price</th>
<th>Award Based On:</th>
<th>Lowest responsive, responsible bidder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity:</td>
<td>Construction</td>
<td>Contract Number:</td>
<td>190030</td>
</tr>
<tr>
<td>Contractor Market:</td>
<td>Open Market</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
BUDGET INFORMATION

Funding: Capital  Department: Water Services
Service Area: Water  Department Head: Jason Hughes
Project: BW

ESTIMATED USER SHARE INFORMATION

<table>
<thead>
<tr>
<th>User</th>
<th>Share %</th>
<th>Dollar Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>100.00%</td>
<td>$7,289,400.00</td>
</tr>
<tr>
<td>Federal Funds</td>
<td>0.00%</td>
<td>$0.00</td>
</tr>
<tr>
<td>Washington Suburban Sanitary Commission</td>
<td>0.00%</td>
<td>$0.00</td>
</tr>
<tr>
<td>Fairfax County</td>
<td>0.00%</td>
<td>$0.00</td>
</tr>
<tr>
<td>Loudoun County &amp; Potomac Interceptor</td>
<td>0.00%</td>
<td>$0.00</td>
</tr>
<tr>
<td><strong>Total Estimated Dollar Amount</strong></td>
<td>100.00%</td>
<td><strong>$7,289,400.00</strong></td>
</tr>
</tbody>
</table>

Leonard R. Benson  
July 15, 2019
Leonard R. Benson, SVP and Chief Engineer

Dan Bae  
July 15, 2019
Dan Bae, VP
Procurement and Compliance

Matthew T. Brown  
July 15, 2019
Matthew T. Brown, CFO and EVP
Finance and Procurement

David L. Gadis  
CEO and General Manager

190030 Lead Service Line Replacement Contract FY20-FY22 - Fact Sheet  
Prepared: July 12, 2019
DISTRIBUTION OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET

ACTION REQUESTED

CONSTRUCTION CONTRACT:
Water Infrastructure Repair & Replacement Contract FY20-FY22
(Non-Joint Use)

Approval to execute a construction contract for $19,276,080.00

CONTRACTOR/SUB/VENDOR INFORMATION

<table>
<thead>
<tr>
<th>PRIME:</th>
<th>SUBS:</th>
<th>PARTICIPATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fort Myer Construction Corp.</td>
<td>V. Fernandes Construction Co. Inc.</td>
<td>16.4%</td>
</tr>
<tr>
<td>2237 33rd St NE</td>
<td>Silver Spring, MD</td>
<td></td>
</tr>
<tr>
<td>Washington, DC 20018</td>
<td>MBE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Amerigal Construction Co. Inc.</td>
<td>15.9%</td>
</tr>
<tr>
<td></td>
<td>Glenn Dale, MD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>United Construction Services LLC</td>
<td>6.0%</td>
</tr>
<tr>
<td></td>
<td>Upper Marlboro, MD</td>
<td></td>
</tr>
</tbody>
</table>

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed: $19,276,080.00
Contract Time: 1,095 Days (3 Years)
Anticipated Contract Start Date (NTP): 10-01-2019
Anticipated Contract Completion Date: 09-30-2022
Bid Opening Date: 06-12-2019
Bids Received: 3
Other Bids Received
  Capitol Paving, Inc. $21,772,790.00
  Anchor Construction Corp. $25,980,337.80

Purpose of the Contract:
To provide Indefinite Delivery and Indefinite quantity (IDIQ) emergency water main repair and replacement of water service line in public and private space at various locations in Washington, DC. Scopes of work will be developed and issued to the contractor on a task order basis as needed by DC Water.

Contract Scope:
- Emergency rehabilitation of various size water mains.
- Rehabilitation and replacement of various types of valves, valve castings and valve boxes.
- Rehabilitation and replacement of fire hydrants, fire hydrants leads and lead service lines.
- Rehabilitation and replacement of Water Service Line in Public and Private Space.
- Cleaning and lining of six, eight and twelve inch diameter water mains.
- CCTV Water Main Inspection.

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

PROCUREMENT INFORMATION

<table>
<thead>
<tr>
<th>Contract Type:</th>
<th>Unit Price</th>
<th>Award Based On:</th>
<th>Contract Number:</th>
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<tbody>
<tr>
<td>Construction</td>
<td></td>
<td>Lowest responsive, responsible bidder</td>
<td>190050</td>
</tr>
<tr>
<td>Contractor Market:</td>
<td>Open Market</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
BUDGET INFORMATION

| Funding: | Capital |
| Service Area: | Water |
| Department: | Water Services |
| Department Head: | Jason Hughes |
| Project: | JA,KW,KX |

ESTIMATED USER SHARE INFORMATION

<table>
<thead>
<tr>
<th>User</th>
<th>Share %</th>
<th>Dollar Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>100.00%</td>
<td>$19,276,080.00</td>
</tr>
<tr>
<td>Federal Funds</td>
<td>0.00%</td>
<td>$0.00</td>
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<tr>
<td>Washington Suburban Sanitary Commission</td>
<td>0.00%</td>
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<tr>
<td>Fairfax County</td>
<td>0.00%</td>
<td>$0.00</td>
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<tr>
<td>Loudoun County &amp; Potomac Interceptor</td>
<td>0.00%</td>
<td>$0.00</td>
</tr>
<tr>
<td>Total Estimated Dollar Amount</td>
<td>100.00%</td>
<td>$19,276,080.00</td>
</tr>
</tbody>
</table>

Leonard R. Benson  
July 15, 2019  
Leonard R. Benson, SVP and Chief Engineer  
Date

Dan Bae  
July 15, 2019  
Dan Bae, VP  
Procurement and Compliance  
Date

Matthew T. Brown  
July 15, 2019  
Matthew T. Brown, CFO and EVP  
Finance and Procurement  
Date

David L. Gadis  
CEO and General Manager  
Date
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET

ACTION REQUESTED

CONSTRUCTION CONTRACT:
Soldiers' Home Reservoir Upgrades
(Non-Joint Use)

Approval to execute a construction contract for $5,401,000.00

CONTRACTOR/SUB/ VENDOR INFORMATION

<table>
<thead>
<tr>
<th>PRIME:</th>
<th>SUBS:</th>
<th>PARTICIPATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Contracting &amp; Environmental Services, Inc. 10330 Old Columbia Rd Suite 102 Columbia, MD 21046</td>
<td>TAG Distribution &amp; Supply, LLC Gwynn Oak, MD</td>
<td>MBE 26.9%</td>
</tr>
<tr>
<td></td>
<td>Matadi Construction, LLC Silver Spring, MD</td>
<td>MBE 1.8%</td>
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<tr>
<td></td>
<td>Dulles Geotech &amp; Material Testing Srv Chantilly, VA</td>
<td>MBE 1.6%</td>
</tr>
<tr>
<td></td>
<td>SJ and Son Construction and Trucking Bowie, MD</td>
<td>MBE 0.7%</td>
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<tr>
<td></td>
<td>Monumental Concrete, LLC Washington, DC</td>
<td>MBE 0.6%</td>
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<td></td>
<td>G.E. Frisco Co. Upper Marlboro, MD</td>
<td>MBE 0.1%</td>
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<tr>
<td></td>
<td>Premiums, LLC Ellicott City, MD</td>
<td>WBE 3.7%</td>
</tr>
<tr>
<td></td>
<td>MS. Pipe, LLC South Windsor, CT</td>
<td>WBE 2.1%</td>
</tr>
<tr>
<td></td>
<td>Robnet, Inc. Baltimore, MD</td>
<td>WBE 0.1%</td>
</tr>
</tbody>
</table>

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed: $5,401,000.00
Contract Time: 420 Days (1 Year 2 Months)
Anticipated Contract Start Date (NTP): 10-10-2019
Anticipated Contract Completion Date: 12-03-2020
Bid Opening Date: 06-12-2019
Bids Received: 4
Other Bids Received
  CPP Construction Company, Inc. $6,334,000.00
  W.M. Schlosser Company, Inc. $6,733,000.00
  Norair Engineering Corporation $6,849,200.00

Purpose of the Contract:
Rehabilitate Soldiers' Home Reservoir located at Armed Forces Retirement Home Golf Course at 3700 N. Capital Street NW based on inspection report recommendations and United States Environmental Protection Agency Sanitary Survey noted significant deficiencies.
Contract Scope:
- Install impervious membrane system on reservoir roof and perimeter drain system.
- Repair reservoir cracks, spalls, and joints.
- Install concrete baffle wall section. Provide cross-connection elimination improvements.
- Install mechanical mixers, water quality sampling system, and overflow monitoring equipment.
- Construct concrete drainage chamber, piping modifications, and ventilation houses.
- Improve security, electrical, instrumentation and controls, and the Supervisory Control and Data Acquisition (SCADA) systems. Provide landscaping and irrigation system.

Federal Grant Status:
- Construction contract is funded in part by Federal grant.

<table>
<thead>
<tr>
<th>PROCUREMENT INFORMATION</th>
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<tbody>
<tr>
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<tr>
<td>Award Based On:</td>
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<tr>
<td>Commodity:</td>
</tr>
<tr>
<td>Contract Number:</td>
</tr>
<tr>
<td>Contractor Market:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BUDGET INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding:</td>
</tr>
<tr>
<td>Department:</td>
</tr>
<tr>
<td>Service Area:</td>
</tr>
<tr>
<td>Department Head:</td>
</tr>
<tr>
<td>Project:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESTIMATED USER SHARE INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>User</td>
</tr>
<tr>
<td>District of Columbia</td>
</tr>
<tr>
<td>Federal Funds</td>
</tr>
<tr>
<td>Washington Suburban Sanitary Commission</td>
</tr>
<tr>
<td>Fairfax County</td>
</tr>
<tr>
<td>Loudoun County &amp; Potomac Interceptor</td>
</tr>
<tr>
<td>Total Estimated Dollar Amount</td>
</tr>
</tbody>
</table>

Leonard R. Benson  
Leonard R. Benson, SVP and Chief Engineer  
July 12, 2019

Dan Bae  
Dan Bae, VP  
Procurement and Compliance  
July 12, 2019

Matthew T. Brown  
Matthew T. Brown, CFO and EVP  
Finance and Procurement  
July 12, 2019

David L. Gadis  
CEO and General Manager  
Date

170130 Soldiers’ Home Reservoir Upgrades - Fact Sheet  
Prepared: July 12, 2019
### Status Report of Public Fire Hydrants for DC Water Services Committee - July 2, 2019

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Fire Hydrants:</td>
<td>9,987</td>
<td>9,988</td>
<td>9,988</td>
<td>9,802</td>
</tr>
<tr>
<td>In Service:</td>
<td>9,932</td>
<td>9,942</td>
<td>9,934</td>
<td>9,760</td>
</tr>
<tr>
<td>Marked Out-of-Service (OOS)</td>
<td>55</td>
<td>46</td>
<td>54</td>
<td>42</td>
</tr>
<tr>
<td>OOS - defective requiring repair/replacement</td>
<td>35</td>
<td>37</td>
<td>43</td>
<td>26</td>
</tr>
<tr>
<td>% OOS requiring repair or replacement (DC Water goal is 1% or less OOS)</td>
<td>0.35%</td>
<td>0.37%</td>
<td>0.43%</td>
<td>0.27%</td>
</tr>
<tr>
<td>OOS - due to inaccessibility or temp construction work</td>
<td>20</td>
<td>9</td>
<td>11</td>
<td>16</td>
</tr>
</tbody>
</table>

Note: The number of public hydrants in the DC Water system fluctuates; this number fluctuates as hydrants are added and removed during development or construction activities as well as at the request of the Fire Dept.

### Breakdown of Public Fire Hydrants Out-of-Service (OOS) as of July 2, 2019

#### Breakdown of Defective

<table>
<thead>
<tr>
<th>Hydrant Needs Repair/Investigation</th>
<th>0-7 Days</th>
<th>8-14 Days</th>
<th>15-30 Days</th>
<th>31-60 Days</th>
<th>61-90 Days</th>
<th>91-120 Days</th>
<th>&gt; 120 Days</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Needs Valve Investigation for Low Flow/Pressure or Shut Test for Replacement</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Needs Replacement</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>13</td>
</tr>
</tbody>
</table>

Defective 26

#### Breakdown of Others

<table>
<thead>
<tr>
<th>Temporarily OOS as part of operations such as a main repair</th>
<th>0-7 Days</th>
<th>8-14 Days</th>
<th>15-30 Days</th>
<th>31-60 Days</th>
<th>61-90 Days</th>
<th>91-120 Days</th>
<th>&gt; 120 Days</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>0</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Construction* - OOS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Obstructed Hydrant – OOS hydrant due to operation impedance by an obstruction</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Others 16

*Fire hydrants not accessible due to construction activities. Also includes new hydrants which have not yet been commissioned or old hydrants which will be abandoned as part of ongoing construction projects.

### Status of Private Fire Hydrants - Based on FEMS Inspection Reporting

- Private Hydrants: 1,298
  - In Service: 1,162
  - Out-of-Service (OOS): 136
Map of Public Out-of-Service Hydrants

Legend

OOS Hydrants
- Defective
- New Construction
- Obstructed
- Temporary

July 03, 2019