



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

**BOARD OF DIRECTORS
WATER QUALITY AND WATER SERVICES
COMMITTEE MEETING AGENDA**

**Thursday, June 16, 2016
11:00 a.m.**

**5000 Overlook Avenue, SW
Washington, DC 20032**

11:00 a.m. I. Call to Order

Howard Gibbs, Acting Chairperson

11:05 a.m. II. Water Quality Monitoring

Charles Kiely

Coliform Testing
LCR Compliance Testing

11:15 a.m. III. Fire Hydrant Upgrade Program

David Wall

Status Report of Public Fire Hydrants
Out of Service Fire Hydrant Map

11:30 a.m. IV. Automated Metering Reading Update

Lauren Preston

12:00 p.m. V. Premise Plumbing Partnership & Research

Jessica Brandt- Edwards

12:20 p.m. VI. Non- Joint Use

Charles Kiely

1. Contract No. IFB 160010 –Fort Myer Construction Corp.
2. Contract No. 16-PR-CCO-59-Fasteners Rx, Inc.
3. Contract No. WAS-12-002-AA-SH-Aclara Technologies

12:30 p.m. VII. Joint Use

1. None.

12:35 p.m. VIII. Executive Session*

Adjournment

*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.

Status Report of Public Fire Hydrants for DC Water Services Committee - June 6, 2016

	March Cmte. Report (Mar 04, 2016)	April Cmte. Report (Apr 04, 2016)	May Cmte. Report (May 04, 2016)	June Cmte. Report (Jun 06, 2016)
Public Fire Hydrants:	9,487	9,488	9,483	9,484
In Service:	9,413	9,420	9,418	9,425
Marked Out-of-Service (OOS)	68	68	65	59
OOS - defective requiring repair/replacement	49	36	45	29
% OOS requiring repair or replacement (DC Water goal is 1% or less OOS)	0.52%	0.38%	0.47%	0.31%
OOS - due to inaccessibility or temp construction work	19	23	20	30

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 June 6, 2016 59

Breakdown of Defective

	0-7 Days	8-14 Days	15-30 Days	31-60 Days	61-90 Days	91-120 Days	> 120 Days	Total
Hydrant Needs Repair/Investigation	3	0	0	1	0	0	4	8
Needs Valve Investigation for Low Flow/Pressure or Shut Test for Replacement	0	0	0	0	0	1	3	4
Needs Replacement	1	2	0	1	0	0	13	17

Defective 29 ←

Breakdown of Others

	0-7 Days	8-14 Days	15-30 Days	31-60 Days	61-90 Days	91-120 Days	> 120 Days	Total
Temporarily OOS as part of operations such as a main repair	0	0	9	2	0	0	3	14
Construction* - OOS	0	0	1	1	1	1	7	11
Obstructed Hydrant – OOS hydrant due to operation impeded by an obstruction.	0	0	0	0	0	0	5	5

Others 30 ←

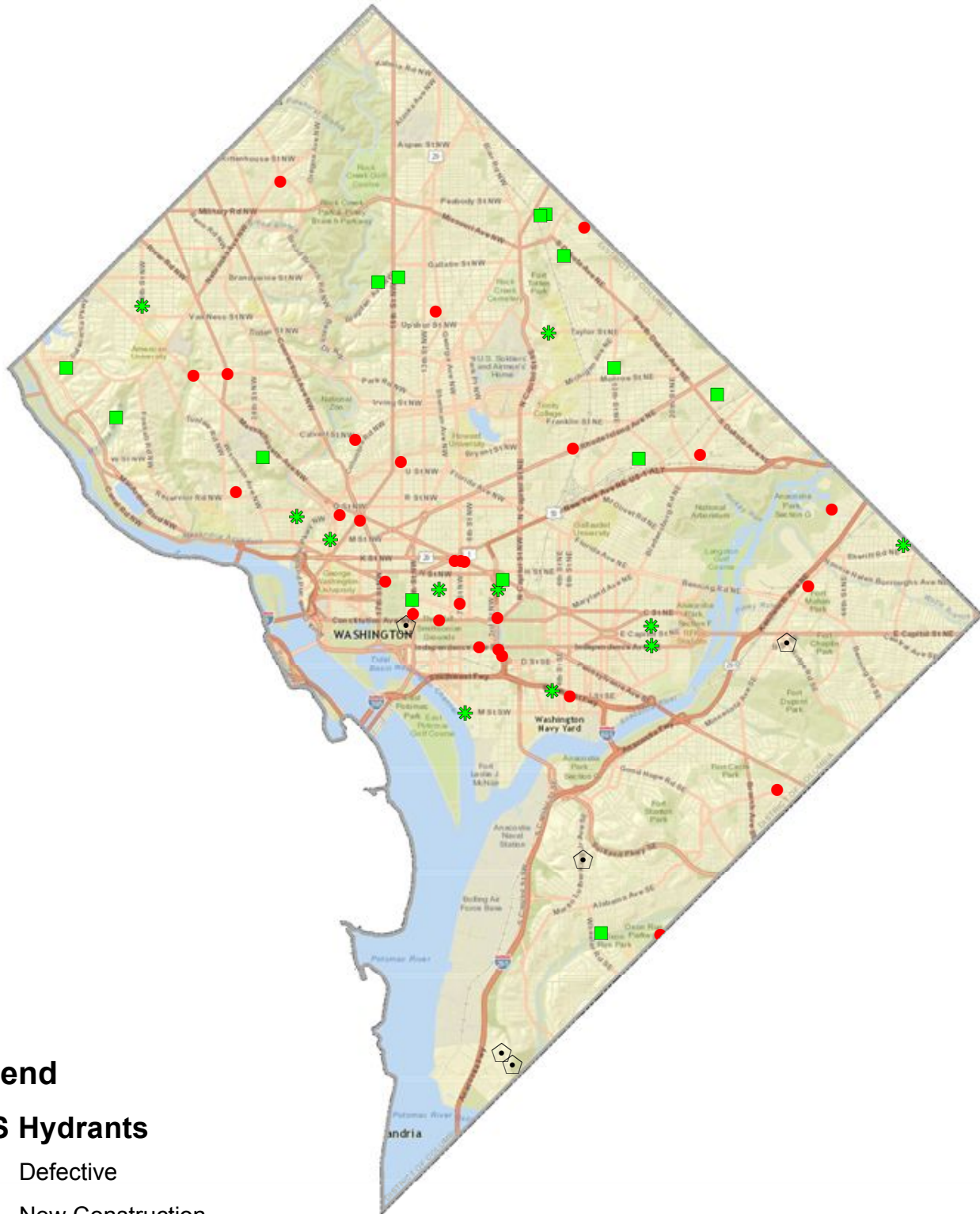
*Fire hydrants not accessible due to construction activities. Also includes new hydrants which have not yet been commissioned or old hydrants which will be abandoned as part of ongoing construction projects.

Status of Private Fire Hydrants-Based on FEMS Inspection Reporting

Private Hydrants:	1,318
• In Service:	1,188
• Out-of-Service (OOS):	130

Map of Public Out-of-Service Hydrants

June 7, 2016



Legend

OOS Hydrants

- Defective
- * New Construction
- ⬠ Obstructed
- Temporary



Meter Replacement Project Results

Presented to:
Water Quality and Water Services Committee
Chairperson: Rachna Butani
June 16, 2016



DC Water Meter Demographics

- ❑ 125,000 meters
- ❑ 122,000 small sized meters managed as part of the overall AMR/meter replacement programs or projects for water system replacement
- ❑ 2,900 large size (3" or greater) meter serving multi-family, non-residential and government accounts contribute 60% of CCF based sales
 - ❑ 2,200 are modest large 3" – 4" = 24% of CCF sales
 - ❑ 700 are very large 6"+ = 36% of CCF sales



Federal 140 Lessons

Expedited exchange of 140 large Federal meters in Spring 2015 focused on accounts with old meters or uncertainty about changes in CCF measurements

Goals:

- ✓ Confirm if meter degradation was a factor in use decline
- ✓ Install AMR equipment to better monitor use changes
- ✓ Have educated conversation with building managers about effects of conservation and building occupancy changes
- ✓ Understand if occupancy related changes in water consumption were temporary or permanent
- ✓ Use that information to adjust current and future Federal billing projections and expectations
- ✓ Give property managers tools to better understand water use



Results – Post installation analysis of 110 of 140 selected accounts

Test Results

- ❑ Shop tested 106 meters:
 - 24 Passed AWWA standards
 - 22 Narrowly did not meet AWWA standards (range 93% to 103%)
 - 60 Did not meet AWWA standards – 7 fast, 56 slow

Financial Change

- ❑ Compared CCF measured for FY 14 vs. FY 15 to see net effect of meter changes among 110 completed accounts.
- ❑ 23 accounts had a modest financial change - variance was within \$150 a month more or less than prior year.
- ❑ Largest increase was worth about \$500,000 in annual revenue
- ❑ Largest decrease showed enduring decline of \$240,000 mostly due to Federal employee relocation.
- ❑ Net increase across all affected accounts 81,520 CCF, worth approximately \$800,000 a year

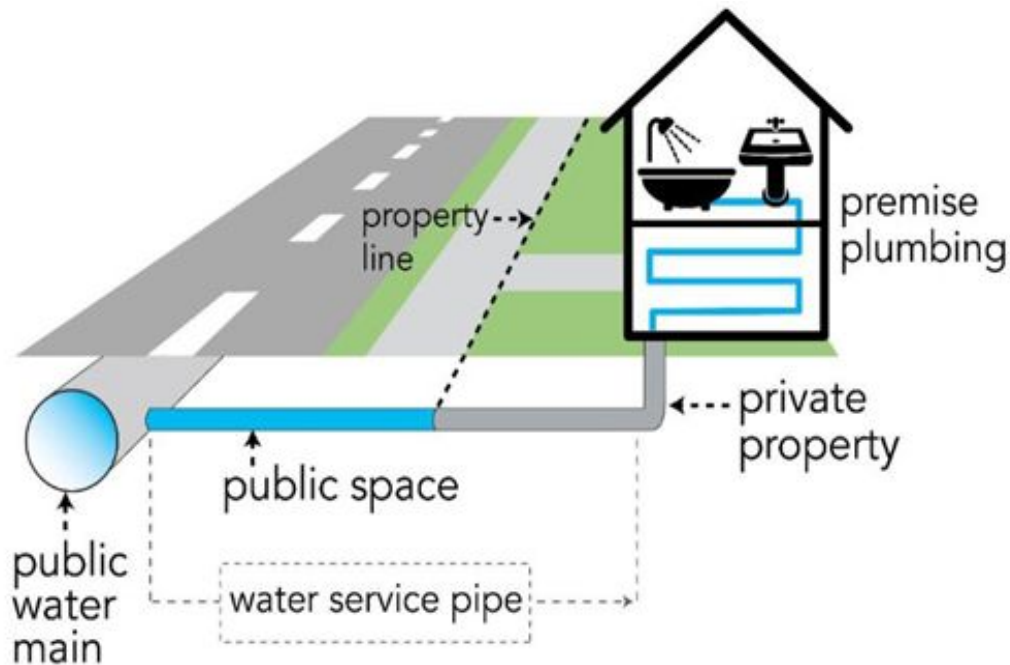


Questions?



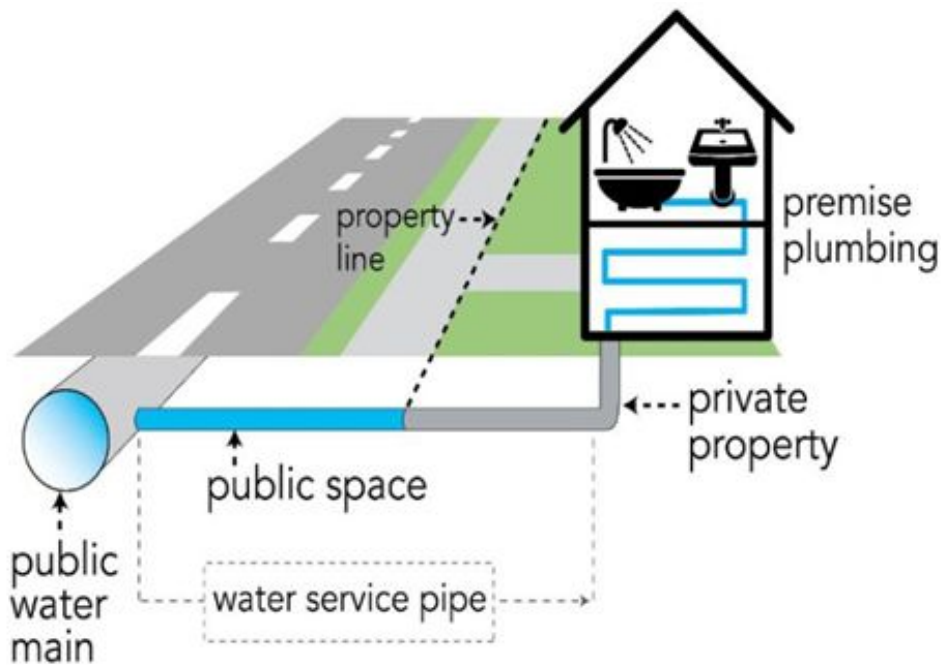
Premise Plumbing Partnership and Research

Water Quality Committee
June 16, 2016





Premise plumbing: No Rules, New Risks, New Research



- Conditions create low chlorine residual and promotes bacteria amplification
- Occurrence and release of Opportunistic Premise Plumbing Pathogens (OPPPs)



The Challenges in dealing with the OPPPs

- Emerging issue – Lack of reliable information, research, and unclear regulatory roles and responsibilities
- SDWA Rules related to supplemental disinfection
- The water age (nitrification) issues within distribution and premise plumbing

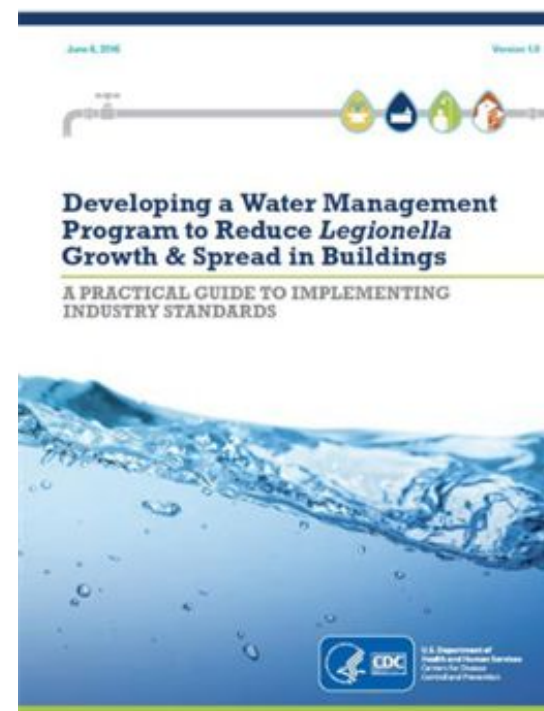


Centers for Disease Control (CDC) June 2016 Update

- CDC released “Vital Signs” report, which demonstrates the number of people with Legionnaires’ disease grew by four times from 2000 to 2014.

CDC also distributed a guide titled [Developing a Water Management Program to Reduce *Legionella* Growth & Spread in Buildings](#).

- *Legionella* bacteria, is a critical opportunistic pathogen, which can lead to Legionnaires’ Disease in some immune-compromised individuals **that inhale airborne water droplets or mist that have the bacteria – ingesting *Legionella* has not been shown to cause illness.**





State of OPPP Research

- Water Research Foundation Project #4379, *State of the Science and Research Needs for Opportunistic Pathogens in Premise Plumbing, 2013*
 - *Legionella is a normal part of the ecology of water distribution systems and is frequently present in high quality, regulatory compliant drinking water distributed to customers.*
 - *Legionella colonization of premise plumbing is not necessarily an indication of poor operating or maintenance practices by a community water system, rather it is a function of the conditions characteristic of premise plumbing that support proliferation.*



Partnership to improve water quality

- Trifecta of experts
 - DC Water
 - Corona Environmental Consulting
 - Xylem Technologies
- 60-day proof of concept to evaluate services to improve water quality in building plumbing
 - DC Water Central Operating Facility (COF) building selected as test location
- Springboard to critical research and market opportunities



Proof of Concept Design

- Develop Communication/Response information
- Develop Hazard Analysis Critical Control Points Plan (HACCP)
 - identify, characterize and manage potential hazards in the potable and non-potable portion of the building water system
- Flushing/ Water Quality Monitoring (sensors and lab)
- Legionella research of potable water samples from end-points (distal) in building plumbing



Springboard into Opportunities

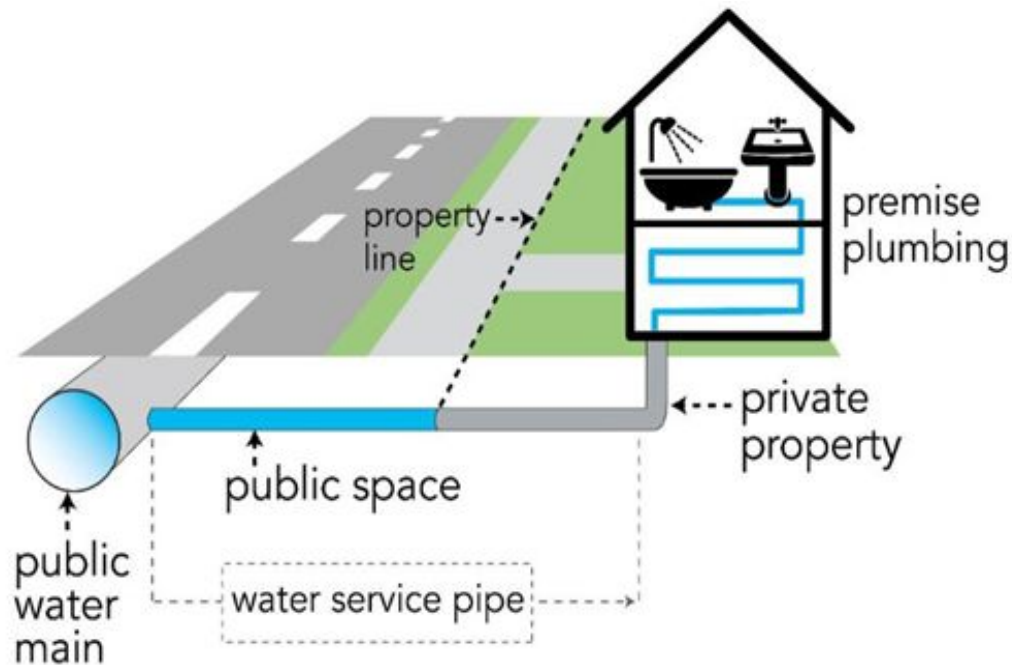
- Conduct literature review to identify gaps in research
- Evaluate and model growth factors
- Investigate treatment options
- Initiate business service offering to customers





Questions?

Thank you



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

ACTION REQUESTED

CONSTRUCTION CONTRACT:

**Water Main Infrastructure Repair & Replacement Contract For
Fiscal Years 2017 - 2019
(Non-Joint Use)**

Approval to execute a construction contract for \$ 16,935,772.16

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Fort Myer Construction Corp. 2237 33 rd Street, Northeast Washington, DC 20018 (MBE)	Omni Excavators Inc Washington, DC 20002 MBE	23.1%
	S & J Services Hyattsville, MD 20781 MBE	8.9%
	Hybrid Construction & Engineering Group Washington, DC 20002 WBE	6.0%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	\$ 16,935,772.16
Contract Time:	1095 Days (3 Years, 0 Months)
Anticipated Contract Start Date:	10-01-2016
Anticipated Contract Completion Date:	10-01-2019
Bid Opening Date:	05-25-2016
Bids Received:	3
Other Bids Received:	
Anchor Construction Corp.	\$ 18,234,687.20
Capitol Paving of D.C.	\$ 21,303,970.28

Purpose of the Contract:

This is an indefinite delivery and indefinite quantity (IDIQ) contract. The contract provides for the repair and replacement of water distribution assets deemed by the Department of Water Services (DWS) critical to the continued safe and dependable delivery of water supply to the District of Columbia. The contract allows DC Water to strategically utilize a combination of internal crews and contractor crews to respond to emergency conditions impacting the water distribution system. The contract also allows DWS to utilize contractor crews to supplement the internal work force during peak times when the backlog of scheduled work exceeds the crews' ability to respond.

Contract Scope:

There is no established scope of work. Scopes of work will be developed and issued to the Contractor on a task order basis as needed by DC Water.

- Emergency repair of water distribution assets.
- Scheduled repair and/or replacement of water mains, valves, service lines, hydrants and appurtenances.

Federal Grant Status:

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

PROCUREMENT INFORMATION

Contract Type:	Unit Price	Award Based On:	Lowest responsive, responsible bidder
Commodity:	Construction	Contract Number:	160010
Contractor Market:	Open Market		


BUDGET INFORMATION


Funding:	Capital and Operating	Department:	Water Services
Service Area:	Water	Department Head:	Jason Hughes
Project:	FK, GS, HY		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$ 16,935,772.16
Federal Funds	0.00%	\$ 0.00
Washington Suburban Sanitary Commission	0.00%	\$ 0.00
Fairfax County	0.00%	\$ 0.00
Loudoun County & Potomac Interceptor	0.00%	\$ 0.00
Total Estimated Dollar Amount	100.00%	\$ 16,935,772.16


 Gail Alexander-Reeves Date
 Director of Budget


 Dan Bae Date
 Director of Procurement


 Charles Kiely Date
 Assistant General Manager,
 Customer Care & Operations

 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 AWARD

**Positive Displacement Meters
(Non-Joint Use)**

Approval to execute a contract for the purchase of 90,000 Positive Displacement Meters with a base year value of \$8,000,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Fasteners Rx, Inc. P.O. Box 496 Oxon Hill, MD 20745	SUBS: N/A	PARTICIPATION: N/A
--	---------------------	------------------------------

DESCRIPTION AND PURPOSE

Base Period Contract Value:	\$8,000,000.00
Base Contract Period:	1 Year and 3 months
No. of Option Years:	1 (12 month period)
Anticipated Contract Start Date:	07-10-2016
Anticipated Base Period Completion Date:	09-30-2017
Proposal Closing (Bid Opening) Date:	06-03-2016
Proposals (Bids) Received:	2
Proposal (Bid) Price Range:	\$8,979,690.00 -- \$12,319,900.00
Winning Evaluated Proposal (Bid) Amount:	\$8,979,690.00

Purpose of the Contract:

As a part of the Automated Meter Reading (AMR) rehabilitation and upgrade program to replace aged assets and to improve customer satisfaction as part of the Blue Horizon 2020 Strategic Plan Goal 4, this contract is to purchase Positive Displacement Meters for the District of Columbia Water and Sewer Authority (DC Water) Department of Customer Care and Operations (CCO).

Contract Scope:

Purchase up to 90,000 small diameter (5/8" to 2") meters to replace meters originally installed over ten (10) years ago for the purpose of rehabilitating DC Water's automated meter reading/advanced meter infrastructure (AMI) system. The rehabilitation project will focus on replacing meters and AMI equipment installed prior to 2007 which have reached the end of its useful life or will fail in the near future. Failing to replace the equipment will result in increased costs, a greater frequency of customers receiving bills based on estimated billing, and decreased customer satisfaction.

Invitation For Bid (IFB) was used for vendor selection. IFB contained total 98,000 meters, resulting in a bid range shown above. However, the quantity for award is adjusted down to 90,000 meters, so the contract award amount is adjusted down as well. There are 5 meters sizes: 5/8", 3/4", 1 1/2", 1", and 2". The breakdown quantity for each meter size is estimated, so the contract award value of \$8,000,000.00 is based on the current best estimated breakdown of different meter size but it could change slightly.

IFB also resulted in a significant cost reduction, generating an estimated \$2,300,000.00 cost savings from current price.

Participated in Invitation For Bid:

Fastener Rx
Mueller Systems

No LBE/LSBE participation. However, Fastener Rx is a MBE but located outside of our user jurisdiction and did not receive any preference point.

PROCUREMENT INFORMATION

Contract Type:	Firm Fixed	Award Based On:	Lowest Request for Quote
Commodity:	Goods and Services	Contract Number:	16-PR-CCO-59
Contractor Market:	Limited Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION


Funding:	Capital	Department:	Customer Services
Service Area:	District of Columbia only	Department Head:	Lauren Preston
Project:	EM1		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$8,000,000.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County	0.00%	\$0.00
Other (PI)	0.00%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$8,000,000.00


Gail Alexander-Reeves
Director of Budget

6/9/2016
Date


Dan Bae
Director of Procurement

6/9/16
Date


Charles Kiely
Assistant General Manager,
Customer Care & Operations

6-9-2016
Date

George S. Hawkins
General Manager

Date

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

ACTION REQUESTED

GOODS AND SERVICES CONTRACT MODIFICATION

**Meter Transmitter Units
(Non-Joint Use)**

Approval to execute a contract modification to extend and purchase 90,000 upgraded Meter Transmitter Units in the amount of \$6,500,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Aclara Technologies 9900 A Clayton Road Saint Louis, MO 63124	SUBS: N/A	PARTICIPATION: N/A
--	---------------------	------------------------------

DESCRIPTION AND PURPOSE

Original Contract Value:	\$490,000.00
Original Contract Dates:	12-16-2011—12-15-2012
No. of Option Years in Contract:	4
Option Year 1 Value:	\$200,000.00
Option Year 1 Dates:	12-16-2012—12-15-2013
Option Year 2 Value:	\$216,000.00
Option Year 2 Dates:	12-16-2013—12-15-2014
Option Year 3 Value:	\$100,000.00
Option Year 3 Dates:	12-16-2014—12-15-2015
Option Year 4 Value:	\$100,000.00
Option Year 4 Dates:	12-16-2015—12-15-2016
Modification Values:	\$1,805,000.00
Modification Dates:	08-22-2013—12-15-2015
This Modification Value:	\$6,500,000.00
This Modification Dates:	7-1-2016—9-30-2018

Purpose of the Contract:

As a part of the Automated Meter Reading (AMR) rehabilitation and upgrade program to replace aged assets and to improve customer satisfaction as part of the Blue Horizon 2020 Strategic Plan Goal 4, this contract is to provide Meter Transmitter Units (MTUs) for the Department of Customer Services.

Original Contract Scope:

To provide MTUs for the purpose of replacing inoperable and aging equipment with new units to ensure correct measurements and meter readings on customer water consumption for billing.

Reason for the Change:

Purchase up to 90,000 new advanced 3400 Series MTUs and replace the older 501 and 3300 Series MTUs for the purpose of rehabilitating DC Water's automated meter reading/advanced meter infrastructure (AMI) system. The rehabilitation project will focus on meters and AMI equipment installed prior to 2007 which have reached the end of its useful life or will fail in the near future. Failing to replace the equipment will result in increased operations costs, a greater frequency of customers receiving bills based on estimated meter readings, greater revenue uncertainty due to estimated billing, and decreased customer satisfaction.

It is in the best interest of DC Water to purchase these additional units as a sole source contract modification, because Aclara MTUs are compatible with the current AMI (advanced meter infrastructure) system. Other MTUs would require replacing approximately \$10 million of installed system assets.

In addition, through procurement negotiation, Aclara reduced the unit price from \$86.00 to \$70.00 per unit for the Single Port MTUS and from \$110.00 to \$100.00 per unit for the Dual Port MTUs, resulting in a cost savings of \$1,300,000.00 in this modification.

Spending Previous Year:

Cumulative Contract Value: 12-16-2011 to 12-15-2016: \$2,911,000.00
 Cumulative Contract Spending: 12-16-2011 to 05-31-2016: \$2,571,826.00

Contractor's Past Performance:

According to the COTR, the Contractor's quality of workmanship; timeliness of deliverables; conformance to DC Water's policies, procedures and contract terms; and invoicing all meet expectations.

No LBE/LSBE participation.

PROCUREMENT INFORMATION

Contract Type:	Firm Fixed	Award Based On:	Sole Source
Commodity:	Goods and Services	Contract Number:	WAS-12-002-AA-SH
Contractor Market:	N/A		

BUDGET INFORMATION

Funding:	Capital	Department:	Customer Services
Service Area:	District of Columbia only	Department Head:	Lauren Preston
Project:	EM1		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$6,500,000.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County	0.00%	\$0.00
Other (PI)	0.00%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$6,500,000.00

 6/9/2016
 Gail Alexander-Reeves Date
 Director of Budget

 6-9-2016
 Charles Kiely Date
 Assistant General Manager,
 Customer Care and Operations

 6/9/16
 Dan Bae Date
 Director of Procurement

 George S. Hawkins Date
 General Manager