

**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

Board of Directors

*Joint Meeting of the
Environmental Quality and Sewerage Services and
Water Quality and Water Services Committee
5000 Overlook Avenue, SW, Room 407
Thursday, June 16, 2016
10:30 a.m.*

I. Call to Order

David Lake
Acting Chairperson
Howard Gibbs
Acting Chairperson

10:30 a.m. II. Capital Improvement Program (CIP) Management Services

Len Benson

10:45 a.m. III. Action Items

Joint Use

- 1. **Contract No. DCFA # 477 WSA – Capital Improvement Program Management Services, CH2M/Parsons JV (CP JV)** Len Benson

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

10:55 a.m. V. Adjournment

David Lake
Acting Chairperson
Howard Gibbs
Acting Chairperson

* The DC Water Board of Directors may go into executive session at this meeting pursuant to the District of Columbia Open Meetings Act of 2010, if such action is approved by a majority vote of the Board members who constitute a quorum to discuss: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); contract negotiations under D.C. Official Code § 2-575(b)(1); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4); collective bargaining negotiations under D.C. Official Code § 2-575(b)(5); facility security under D.C. Official Code § 2-575(b)(8); disciplinary matters under D.C. Official Code § 2-575(b)(9); personnel matters under D.C. Official Code § 2-575(b)(10); proprietary matters under D.C. Official Code § 2-575(b)(11); decision in an adjudication action under D.C. Official Code § 2-575(b)(13); civil or criminal matters where disclosure to the public may harm the investigation under D.C. Official Code § 2-575(b)(14), and other matters provided in the Act.



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

Briefing on:

CIP Program Management Services

Briefing for:

Joint Meeting of
Environmental Quality & Sewerage Services Committee
and
Water Quality and Water Services Committee



June 16, 2016

DCWATER.COM

Agenda

1. Capital Program: 10-yr Disbursement
2. Drivers of the CIP
3. Evolving Make Up of the CIP
4. Enterprise CIP Optimization Goals
5. CIP Delivery Structure
6. CIP Management Services (“PgMC”)



1. Capital Program: 10-Year Disbursement

Service Area	\$ in Millions
Non-Process Facilities	71.4
Wastewater Treatment	797.1
DC Clean Rivers	1,207.5
Combined Sewer Overflow	122.9
Stormwater	21.4
Sanitary Sewer	507.9
Water	636.0
Total	3,364.2

Total 10-Year Capital Program disbursement for Water and Sewer Service Areas = \$1.29 billion



2. Drivers of the CIP

- Blue Horizon 2020 Goals:
 - ✓ Goal 2: Collaborate locally, regionally, nationally and internationally
 - ✓ Goal 7: Maximize WQ Treatment, Compliance and Efficiency
 - Distribution system optimization
 - Ensure compliance with sewer and water systems permits and regulations
 - Implement pilot for linear infrastructure condition assessment
 - ✓ Goal 8: Optimally Manage Infrastructure
 - Replace and/or rehabilitate at least 1% of linear assets annually
 - Reduce impact of infiltration & inflow
 - Improve cost effectiveness of infrastructure repair and replacement
 - ✓ Goal 9: Adopt sustainable processes & programs
 - Develop strategy map in alignment with the strategic plan
 - Adopt best practices
 - Adopt sustainable processes and programs (includes climate change)
 - Adopt innovative practices



3. Evolving Makeup of the CIP

- Transition from fewer mega-projects to more smaller projects
- Transition to doing more projects in Water & Sewer Service Areas
- More Projects across a wider geography
- More work in DC public space
- External factors have greater influence in success

Balancing Multiple Objectives

- Optimized CIP delivery
- Construction market conditions
- MBE/WBE goals
- CIP funding constraints
- Risk management/asset-life cycle optimization
- Sustainability and energy efficiency goals
- Innovation goals
- Achieving a 'steady-state' 10-yr CIP

Benchmarking CIP Delivery

- Presentations by 15 regional, national & international consultants
- Identified alternative approaches to optimize the delivery of the CIP
- Identified best practices
- Captured lessons learned

This has helped us develop an enhanced program management strategy for CIP implementation moving forward.

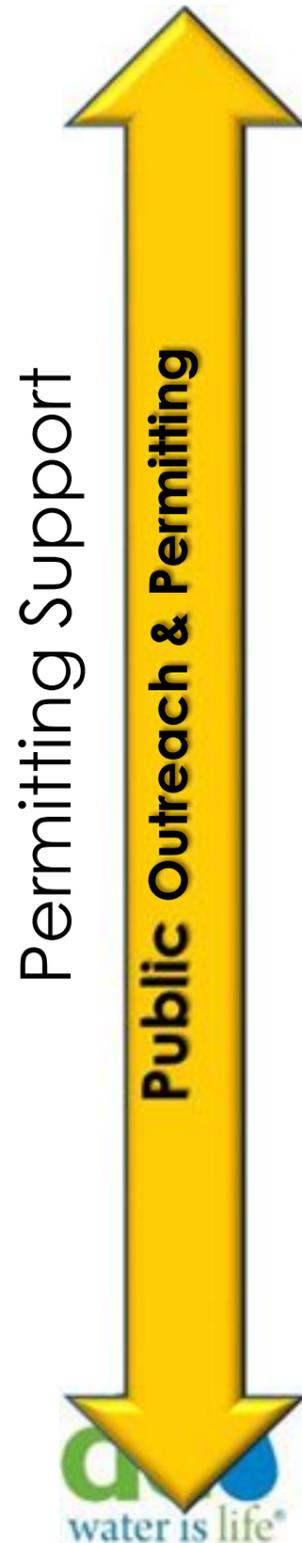


4. Enterprise CIP Optimization Goals

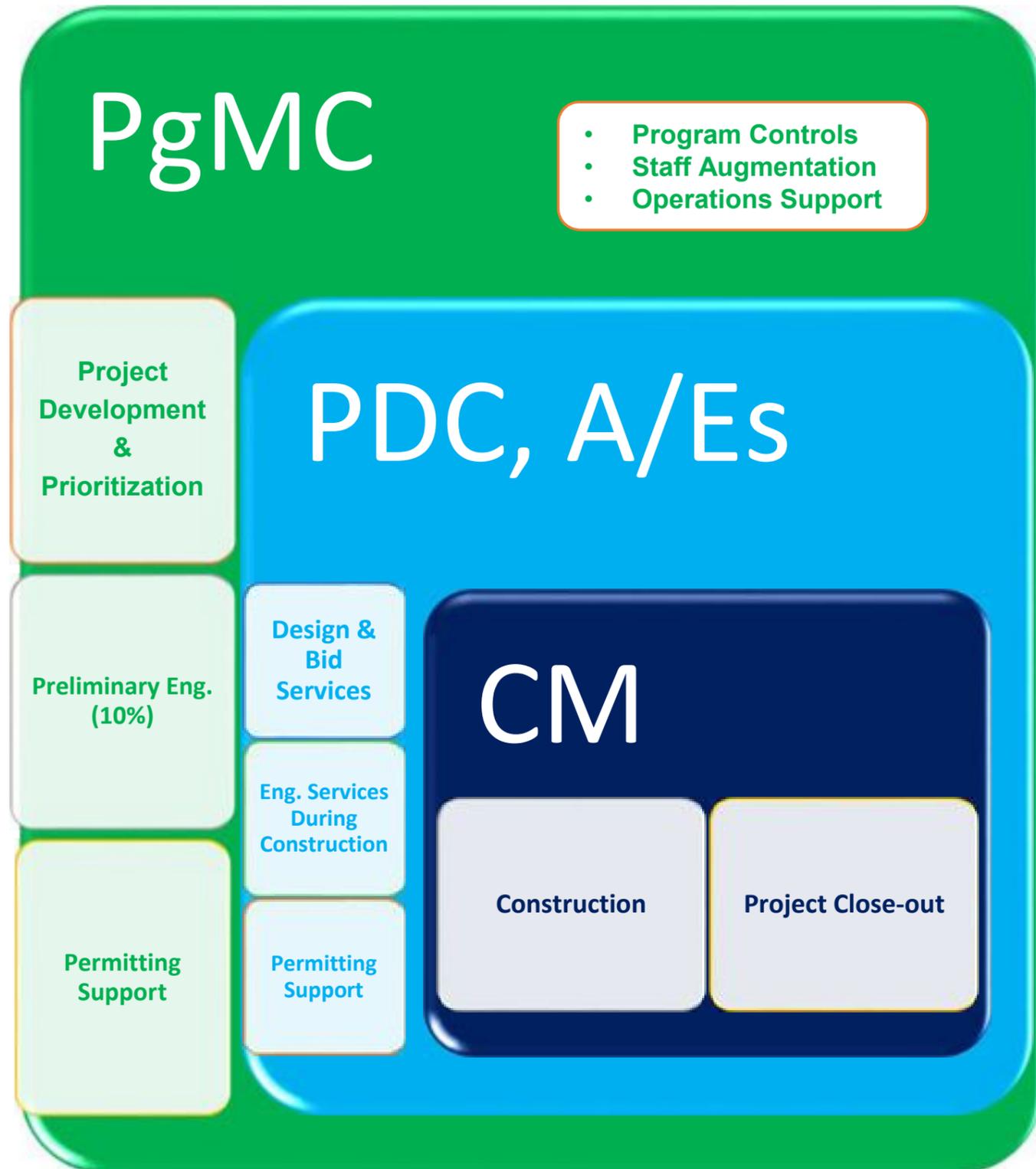
- Transitioning from Project Management to Program Management
- Optimizing CIP delivery (balancing social, environmental and financial goals)
- Optimizing project quality, delivery times and benefits
- Improving or streamlining permitting processes
- Collaborating with other agencies
- Applying data management and analytics
- Standardizing project and program controls processes and tools
- Implementing automated work flows
- Leveraging new technologies
- Providing a long-range view of future needs, projects and priorities
- Building DC Water's capability to insource CIP program management



5. CIP Delivery Structure - Functional

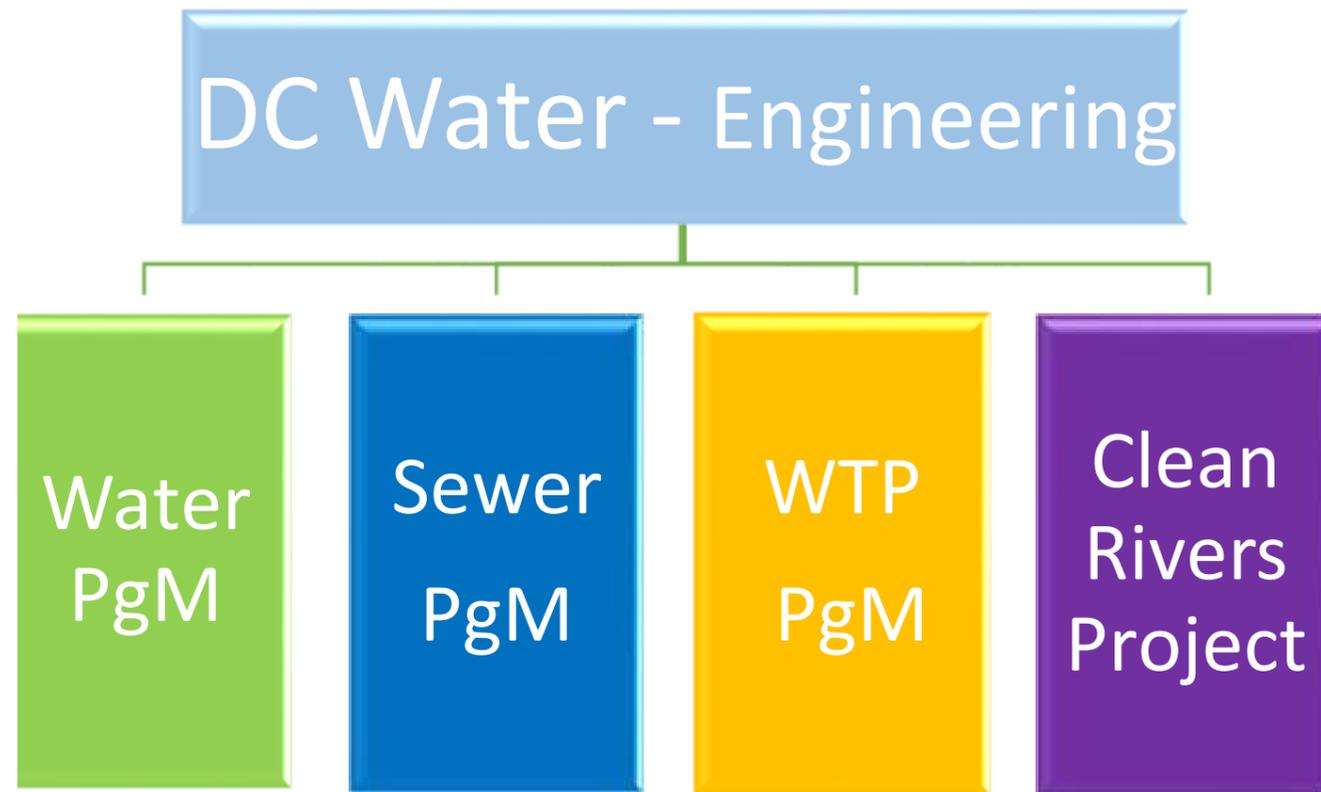


- **Program Management Consultant (PgMC)**
 - ✓ Project Initiation/ Development
 - ✓ Project Needs Review and Prioritization
 - ✓ Preliminary Engineering (10%)
- **Project Delivery Consultant (PDC)**
 - ✓ Concept Finalization Report (30%)
 - ✓ Design, Environmental and Permitting
 - ✓ Advertise and Award
 - ✓ Eng. Services During Construction
- **Construction Management (CM)**
 - ✓ Construction
 - ✓ Commissioning
 - ✓ Project Close-out

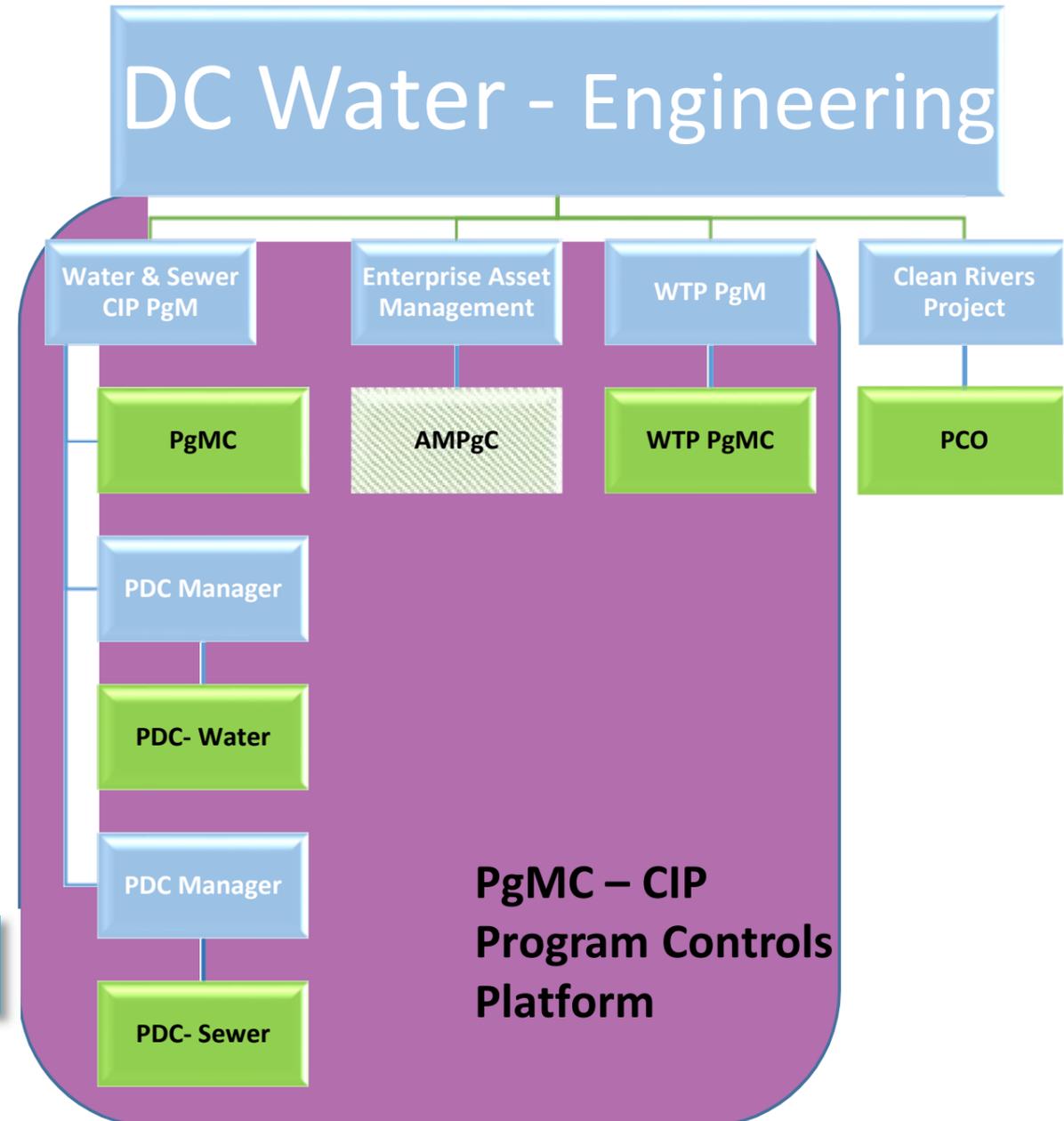


Organizational Structure

Current Delivery Structure



Transition Delivery Structure



Design Services by A/Es, BOAs

dc **3rd Party CM**

3rd Party CM

Main Features



6. CIP Management Services Deliverables

- CIP Program Controls for the Enterprise (~15%)
 - ✓ Develops tools to track Program metrics and KPIs (cost, schedule, quality, MBE/WBE participation, etc.)
 - ✓ Establishes dashboards tailored to various stakeholders.
 - ✓ Establishes reporting hierarchy (Board, Executive Staff, Auditors, Customers, Project Managers)
 - ✓ Standardizes GIS as a user interface & delivery platform
- Development of the Water and Sewer CIP (~75%)
- Staff Augmentation, Operations Support, Technology & Tools (~10%)



Agreement

- 3 years with potential for 2 option periods of 1 year each
 - ✓ Pending establishment of need for continuing services
- Each contract year will have a detailed work plan
- MBE/WBE goals will be met for each contract year
- Methods of Compensation:
 - ✓ Cost Plus Fixed Fee (CPFF)
 - Estimated cost plus fixed fee
 - ✓ Lump Sum (LS)
 - Negotiated Price for pre-defined assignments
- Budget



Questions?



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

ACTION REQUESTED

**ENGINEERING SERVICES:
Capital Improvement Program Management Services
(Joint Use)**

Approval to execute an Architectural and Engineering Services Agreement in an amount not to exceed \$44,902,000.00 for Phase I (FY16-FY19) of the contract. Pending establishment of the need for continuing services, Phases 2 and 3 of this contract, consisting of one year each, will be awarded at DC Water's sole discretion pending acceptable performance and evaluation of program implementation for prior phase/s. Board of Directors approval of the contract modification(s) for the subsequent phase/s will be sought at that time.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION*:
CH2M/Parsons JV (CP JV) 901 New York Ave, NW Suite 4000 East Washington, DC 20001	Chester Engineers, Gaithersburg, MD	MBE 6.7%
	CSA Central, Landover, MD	MBE 4.4%
	Cube Root Corporation, Washington, DC	MBE 1.6%
	EPC Consultants San Francisco, CA	MBE 0.4%
	HB Permit Services, Ft. Washington, MD	MBE 0.4%
	Milhouse Engineering & Construction Chicago, IL	MBE 3.7%
	PEER Consultants, PC Washington, DC	MBE 2.8%
	Savin Engineers Landover, MD	MBE 5.5%
	Somat Engineering Washington, DC	MBE 2.6%
	Rohadfox Construction Controls Services Corporation Atlanta, GA	WBE 2.3%
	SZ PM Consultants Oakton, VA	WBE 0.5%
	Tina Boyd & Associates, Washington, DC	WBE 1.4%
	Blue Water Kentucky Louisville, KY	0.3%
	Cygnal Consulting Denver, CO	1.0%
The Eurich Group Denver, CO	0.4%	

*MBE/WBE participation provided here is for Contract Year 1 of the Agreement only. The participation ratio and the sub-consultant firms may change from Contract Year to Contract Year based on the scope requirements of the Program Management Services.

DESCRIPTION AND PURPOSE

Contract Value, Phase 1, Not-to-Exceed: \$44,902,000.00
 Contract Time, Phase 1: 1,095 Days (3 Years, 0 Months)
 Anticipated Contract Start Date, Phase 1: 07-18-2016
 Anticipated Contract Completion Date, Phase 1: 07-18-2019

Other firms submitting proposals/qualification statements:

- Greeley & Hansen and O'Brien & Gere JV
- Louis Berger

Purpose of the Contract:

- To provide program management services for the development and implementation of a capital improvement program (CIP) in the District of Columbia and, to a limited extent, in the neighboring jurisdictions. This includes assessment, rehabilitation, upgrading and otherwise improvement of DC Water's drinking water distribution system and sanitary, combined sewer and storm water collection and conveyance systems and their appurtenances.

Contract Scope:

- The required services include program management, program controls, hydraulic modeling, studies, reports, business case evaluations, management of inspection and condition assessment of linear and vertical assets, design and construction management support, operations support, project management support, data and document management, training, and program and project management systems development and implementation.

PROCUREMENT INFORMATION

Contract Type:	Cost Plus Fixed Fee	Award Based On:	Highest Ranking Score
Commodity:	Engineering Services	Contract Number:	DCFA# 477-WSA
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	Department:	Engineering and Technical Services
Service Area:	Water, Sanitary, Combined Sewer & Stormwater	Department Head:	Liliana Maldonado
Project:	AU, AV, AT, ME, KV		

ESTIMATED USER SHARE INFORMATION

User	**Share %	Dollar Amount
District of Columbia	0.00%	\$0.00
Federal Funds	0.00%	\$0.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County & Potomac Interceptor	0.00%	\$0.00
Total Estimated Dollar Amount	100.00%	\$44,902,000.00

**Under the terms of the IMA, the capital costs associated with each joint use facility are to be split among the users in proportion to the peak flow each user is allocated. It is not possible, at this time, to allocate costs by individual facility. It is anticipated that as projects are developed for work associated with specific facilities and costs are developed, the individual users will be notified and billed accordingly.


 Gail Alexander-Reeves
 Director of Budget
 Date: 6/9/16


 Dan Bae
 Director of Procurement
 Date: 6/9/16


 Leonard R. Benson
 Chief Engineer
 Date: 6/9/16

 George S. Hawkins
 General Manager
 Date: / /