





Juan Carlos Arteaga

Deputy Director, Miami-Dade Water and Sewer Department

PRESENTATION

Capital Improvement Plan - Overview

DATE November 12, 2014

EVENT MDWASD Industry Forum 2014

Existing Water Infrastructure

- Three (3) large regional water treatment plants
- Five (5) small water treatment plants
- 100 water supply wells
- 7,490 miles of pipes
- 39,000 fire hydrants
- 127,000 valves
- 455,000 water meters



Existing Water Infrastructure

- Three (3) wastewater treatment plants
- Two (2) ocean outfalls (N&C)
- Twenty-one (21) deep injection wells
- 6,277 miles of pipes
- 1,043 sewer pump stations
- Eleven (11) treated water storage tanks



Deteriorated Infrastructure

Approximately:

- 10% are older than 50 years old
- 42% are 25 to 50 years old
- 26% are less than 25 years old
- 22% are of unknown age

Infrastructure Deficiencies

February, 2012 – BCC Reso-170-12 directed the mayor to provide a report which addresses WASD's most critical infrastructure renewal needs



- WASD CIP Multi-Year Program was formulated and established

We need to prevent something like this



Current Regulatory Challenges

- Compliance with the Federal Clean Water Act (EPA Consent Decree)
- Compliance with the State 2008 Ocean Outfall Legislation
- Continued compliance with the requirements of the Safe Drinking Water Act
- Replacing undersized water mains in order to meet fire flow and water quality requirements
 - Failure to act in a timely manner will result in violations of law subject to fines and other enforcement actions

Miami-Dade commissioners approve spending \$1.6 billion to fix water, sewer pipes - Miami-Dade - - Windows Internet Explorer pro

http://www.miamiherald.com/2013/05/21/3407080/miami-dade-commissioners-to-take.html

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MIAMI-DADE COUNTY

Miami-Dade commissioners approve spending \$1.6 billion to fix water, sewer pipes

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BY PATRICIA MAZZEI
PMAZZEI@MIAMIHERALD.COM

Miami-Dade commissioners swallowed hard medicine Tuesday, approving an agreement with the federal and state governments to settle violations of environmental laws and committing \$1.6 billion over the next 15 years to fix the county's antiquated water and sewer pipes.

"Any world-class city has good infrastructure, and the most important infrastructure in any city is its water and sewer," Mayor Carlos Gimenez told the board. "Without water, we can't live. Without getting rid of wastewater, then we're susceptible to disease."

The agreement, called a consent decree, will force the county to upgrade its leaky sewage system following violations of laws such as the federal Clean Water Act

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Other Needs

Rehabilitation & Replacement Related Needs

- Capital projects that address the rehabilitation and replacement of identified infrastructure
- Failure to perform these projects could result in pipe failures and equipment breakdowns
- Consequently, service interruptions, sewage spills, and other permit violations could occur, subject to enforcement actions and fines

Growth & Development Related Needs

- Capital projects that address capacity limitations and other deficiencies in the system and/or limit construction and development projects

What does this mean to YOU and YOUR FIRM?

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OPPORTUNITY**

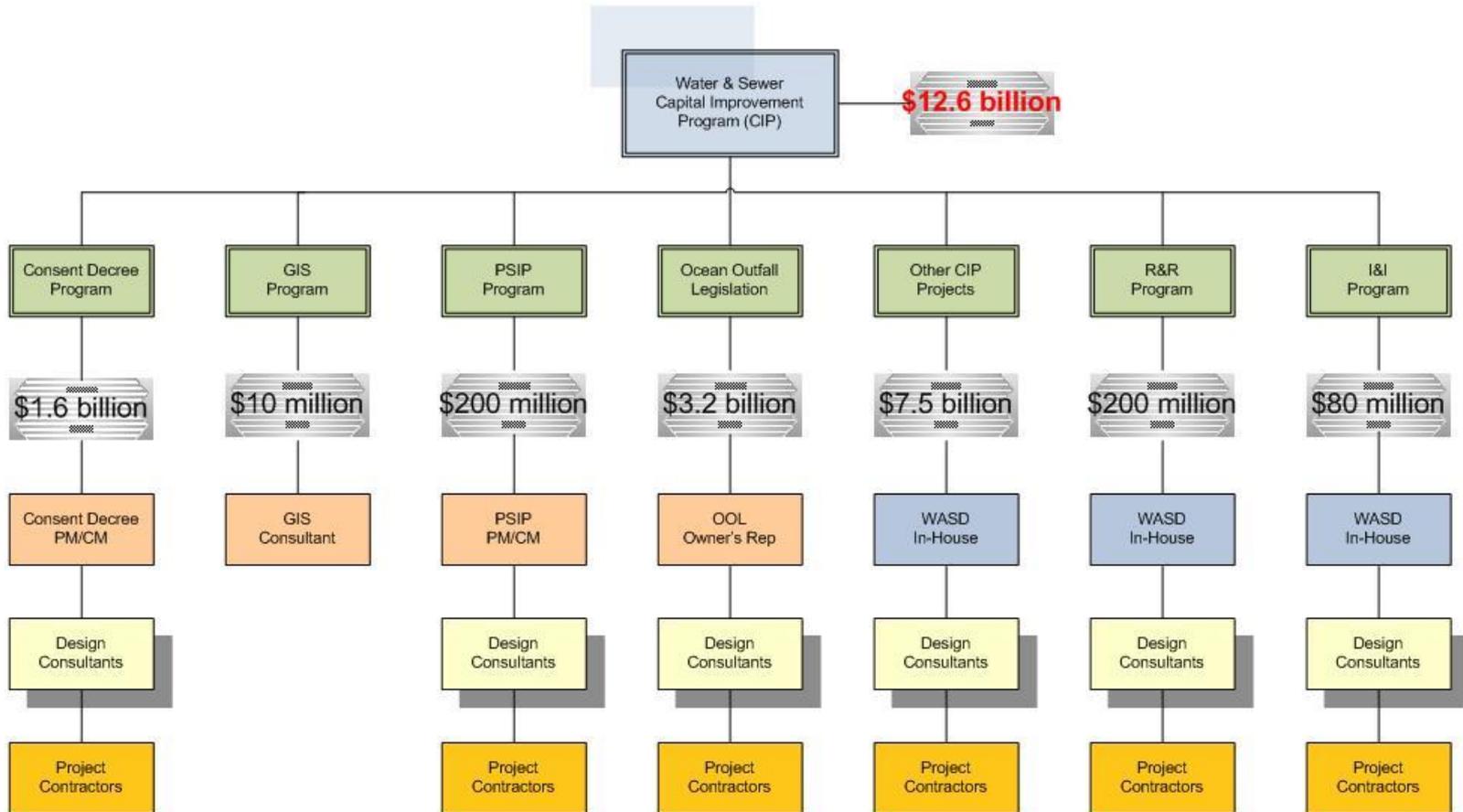
WASD Multiyear Capital Improvement Program

Or....

Current and Future Opportunities

WASD CIP Table of Organization

Wednesday, August 27, 2014



Prepare to Participate

- All Disciplines
- All Trades
- All Specialties

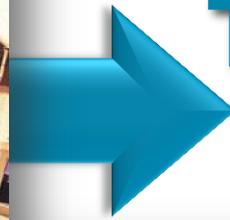
GET READY!!!

WASD Ongoing & Future Projects

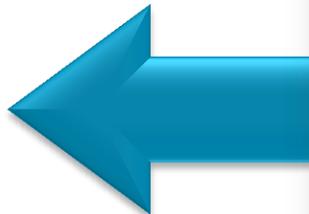
Design Consultants Estimated Needs

"DRAFT" CIP PROGRAM, FY 2014-2019					
Consultant Groupings	ESTIMATED FEE AMOUNT	PSA AGREEMENTS	PSA VALUE	SUBTOTAL	TOTAL
Hydrogeological Design (Injection Wells)	\$787,921	1	\$1,000,000	\$1,000,000	\$1,000,000
Instrumentation and Control, SCADA	\$2,914,565	1	\$3,000,000	\$3,000,000	\$3,000,000
Service Facilities	\$4,342,319	2			\$5,000,000
1st Tier - CBE Set-Aside		1	\$2,000,000	\$2,000,000	
2nd Tier - CBE Set-Aside		1	\$3,000,000	\$3,000,000	
Wastewater Pipelines-Large Diameter	\$23,721,641	4	\$6,000,000	\$24,000,000	\$24,000,000
Wastewater Pipelines-Small Diameter	\$33,127,777	12			\$34,000,000
1st Tier - CBE Set-Aside		5	\$2,000,000	\$10,000,000	
2nd Tier - CBE Set-Aside		4	\$3,000,000	\$12,000,000	
PSA with - CBE Measure		3	\$4,000,000	\$12,000,000	
Wastewater Pump Stations-Local	\$28,887,203	10			\$24,000,000
1st Tier - CBE Set-Aside		6	\$2,000,000	\$12,000,000	
2nd Tier - CBE Set-Aside		4	\$3,000,000	\$12,000,000	
Wastewater Pump Stations-Regional	\$8,579,510	1	\$8,000,000	\$8,000,000	\$8,000,000
Wastewater Treatment Plants	\$18,948,246	1	\$20,000,000	\$20,000,000	\$20,000,000
Water Treatment Plants and Related Facilities	\$9,477,419	1	\$10,000,000	\$10,000,000	\$10,000,000
GRAND TOTAL	\$130,786,601	33			\$129,000,000

Project Delivery Methods



**Traditional
DBB**



DB

DBO
DBFO
DBFOM
DBFOOM

How Will Projects be Contracted?

All modes of Procurement

- MCC 7040 Plan
- MCC 7360 Plan
- EDP Program
- Traditional Design – Bid – Build
- Design – Build
- CM – At Risk
- P3 – Private Public Partnerships

Expression of Interest

Thirty-two (32) respondents

Areas of Interest:

- WWTP
- WTP
- PS
- Bio-Solids
- AMR/AMI
- Energy Optimization

Expression of Interest (EOI)
Public-Private Partnerships (P3s) for Water and Sewer Capital Projects



Miami Dade County



Water and Sewer
Department (WASD)



November 2013

Summary

- Significant investment is required over the next few years (\$13.5B)
- The investment is needed in both Facility and Operations
- Accommodating future growth and development is essential for the economic vitality of the County
- Meeting deadlines for regulatory mandates is critical
- All project delivery alternatives are fully explored and evaluated
- Rates remain competitive when compared to other utilities

How Do I Prepare and Get Involved?

- Stay informed; seek and request information
- Partner with MDWASD to meet aggressive CIP schedules
- Bring new ideas for expediting project delivery
- Help MDWASD exceed small business initiative goals
- Be an advocate for MDWASD
- Network with your colleagues (designers and constructors)
- Training (WASD is going to implement programs)

Questions?

JC Arteaga AIA, NCARB, APA, CGC, CBO, LEED® AP
Deputy Director

Email: jcarteaga@miamidade.gov

Office: (786)-552-8571

Mobile: (305)-218-8976

www.miamidade.gov/water