



Miami-Dade Water and Sewer Department Capital Improvement Program

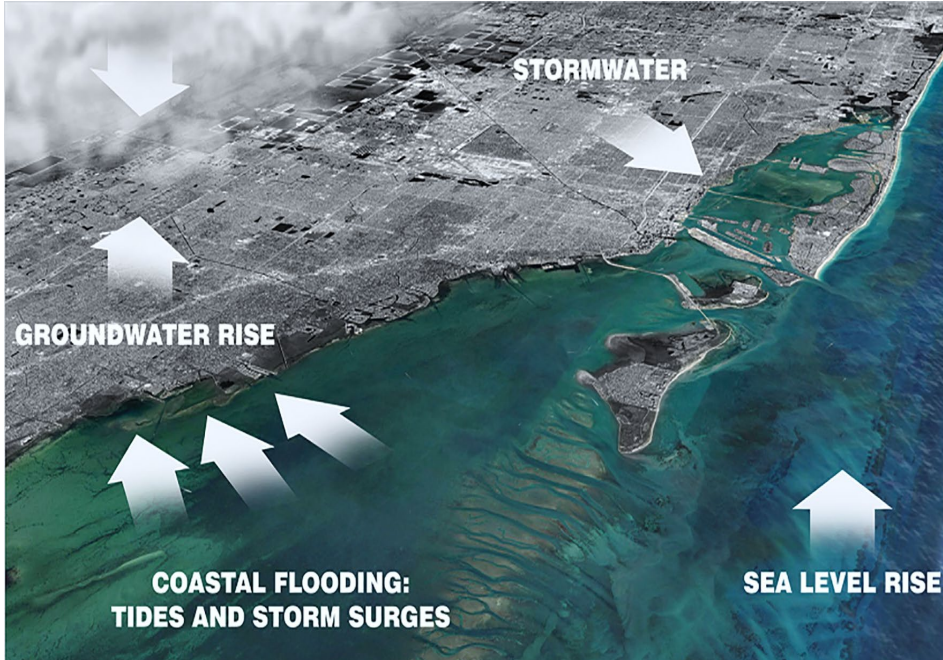
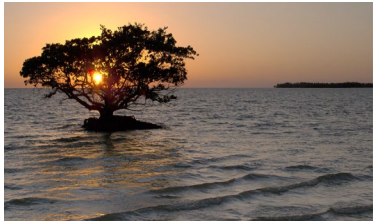
Industry Forum February 17, 2022

Miami-Dade County

CIP Investments in Our Community



Miami-Dade County is a coastal community with 5,830 people per square mile within its urban area. The WASD CIP is focused on the following projects to improve system resilience throughout our service area:



- Upgrading our aging infrastructure through replacement and renewal
- Addressing critical needs across our water treatment plants and distribution system
- Fast-tracking projects to connect more than 12,000 groundwater compromised septic tanks to our sanitary sewer system as part of our recently launched Connect 2 Protect program

The “One Water” Approach to Water Sector Resilience



The simple truth is that all water has value — drinking water, wastewater, stormwater, and everything in between — and should be managed in a sustainable, inclusive, integrated way.

We call this perspective **One Water**. And while our focus is water, our goals are thriving local economies, vibrant communities, and healthy ecosystems.

WASD Capital Improvement Program

BUILDING FOR OUR FUTURE



Through the **Capital Improvement Program**, the Miami-Dade Water & Sewer Department will continue to ensure the sustainable delivery of high-quality drinking water and wastewater services to the residents of Miami-Dade County.

WASD at a glance

The Miami-Dade Water & Sewer Department is the largest water utility in the Southeastern United States, providing high-quality, affordable water & wastewater services to the people of Miami-Dade County.



94 Production Wells



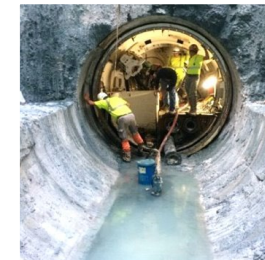
1,057 Pump Stations & 6,300 Miles of Collection System



3 Wastewater Plants Treating Almost 300 MGD



2.3 Million Residents Served

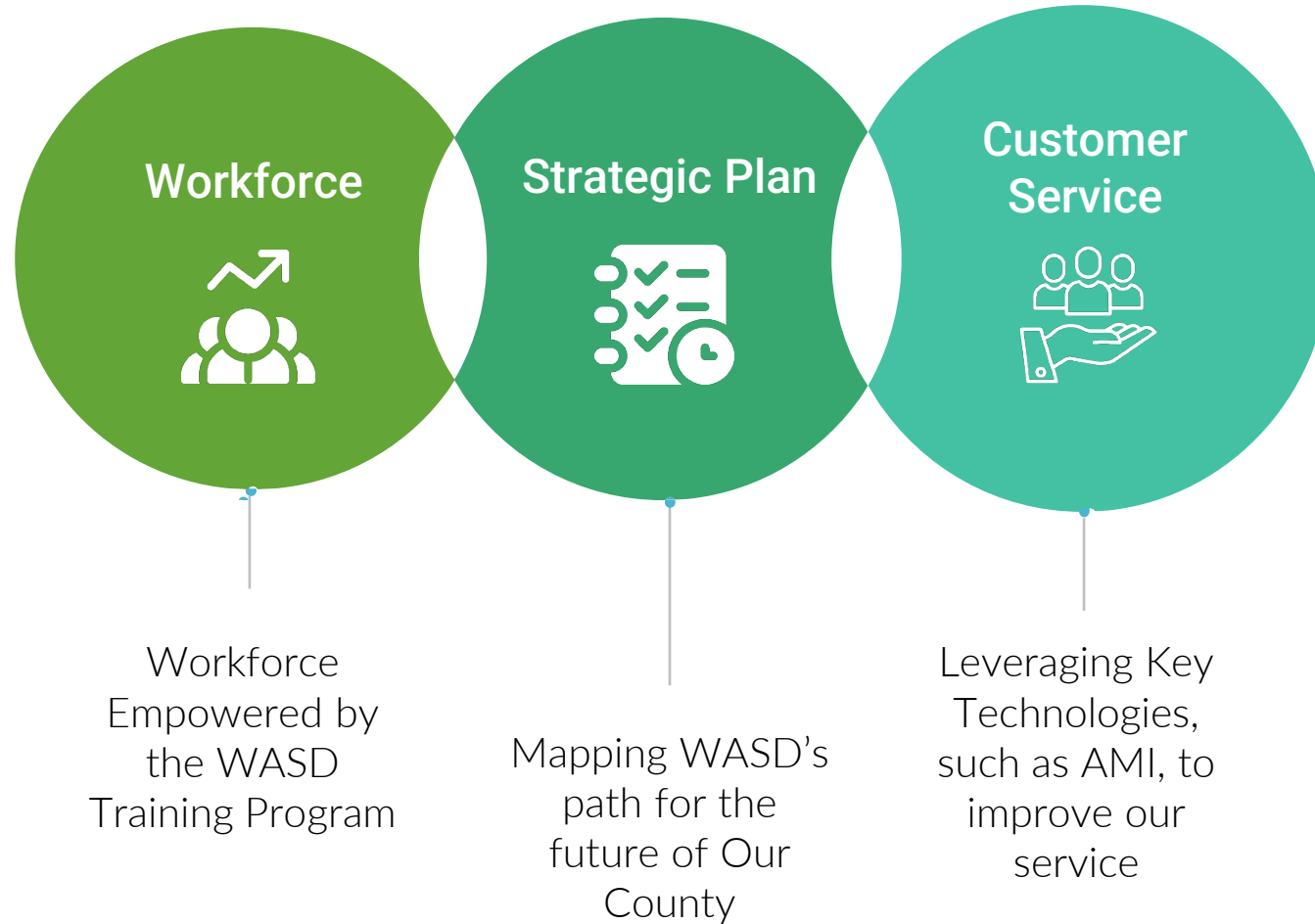


2,791 Positions



3 Regional Water Plants & 1 Shared Reverse Osmosis Plant Producing 300+ MGD

Strategic Initiatives



WASD Key Capital Improvement Programs

Consent Decree

To achieve full compliance with the US EPA Clean Water Act

Water Reset

To address critical needs across water treatment plants & the distribution system

Pump Station Resilience

To manage the improvement to pump stations, force mains, and gravity lines



Ocean Outfall Legislation

To comply with State of Florida legislation requiring elimination of ocean outfalls to dispose of treated wastewater

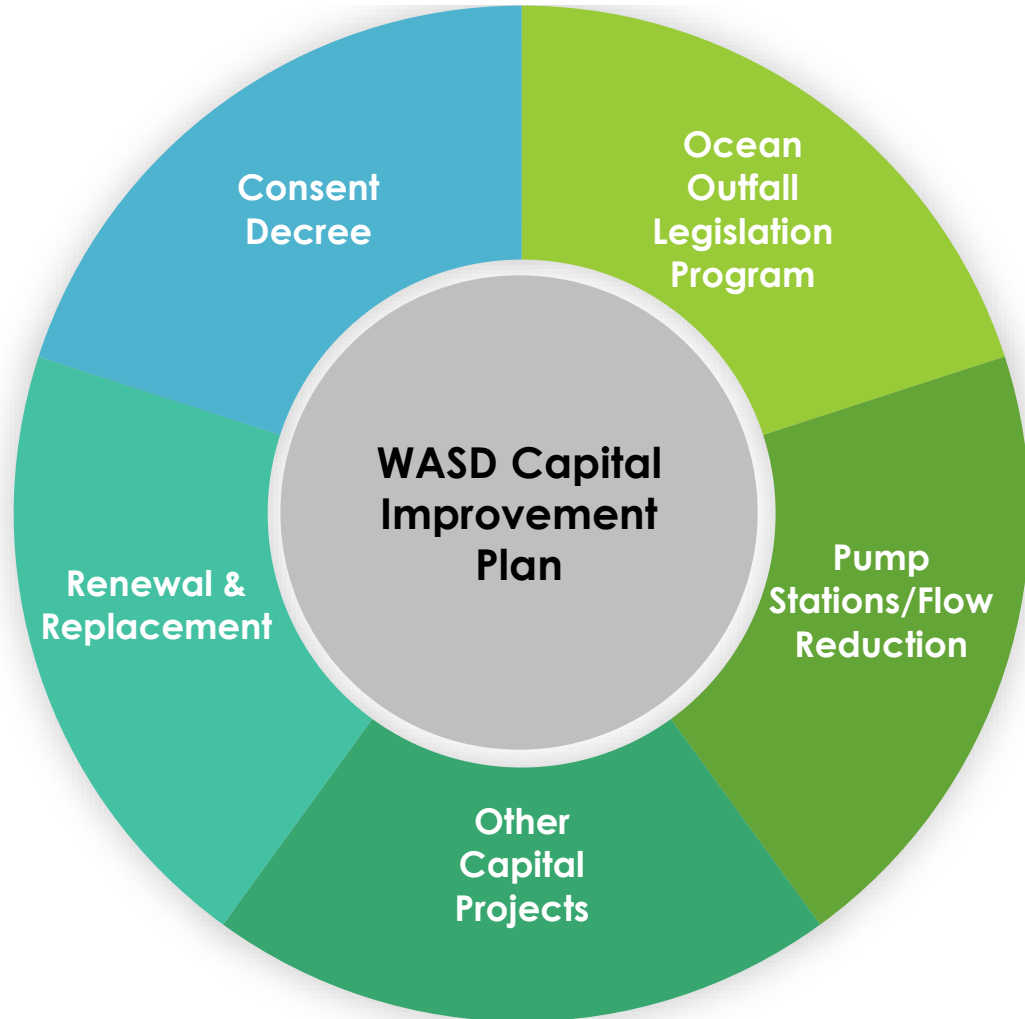
Connect 2 Protect

To protect Biscayne Bay and the environment by implementing septic to sewer conversions

Asset Management

To address aging infrastructure through systemic renewal & replacement

Capital Plan



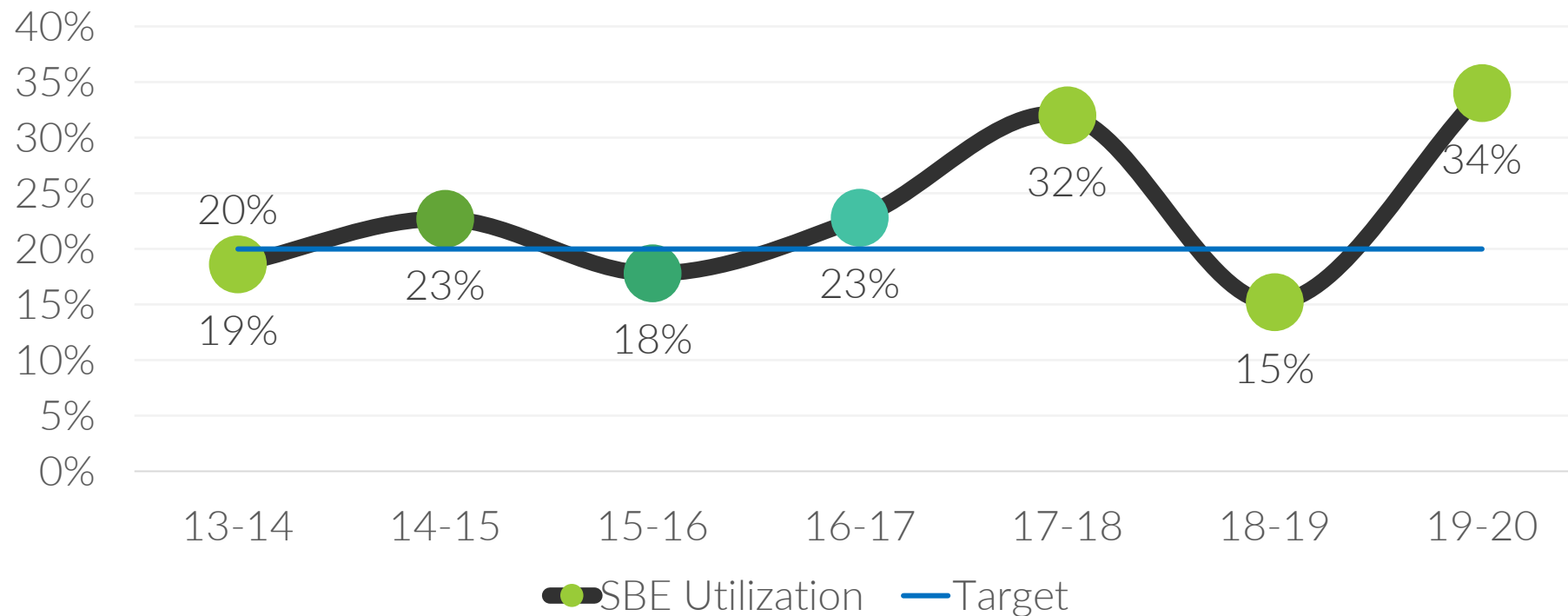
| Investment Drivers | ADOPTED BUDGET FY 20 |
|--------------------------------|-------------------------|
| Consent Decree Program | \$1,817 |
| Ocean Outfall Legislation | \$2,177 |
| Pump Stations & Flow Reduction | \$389 |
| WASD Capital Projects | \$3,141 |
| Totals | \$7,524 M |

💧 7.5 Billion in Infrastructure Investments

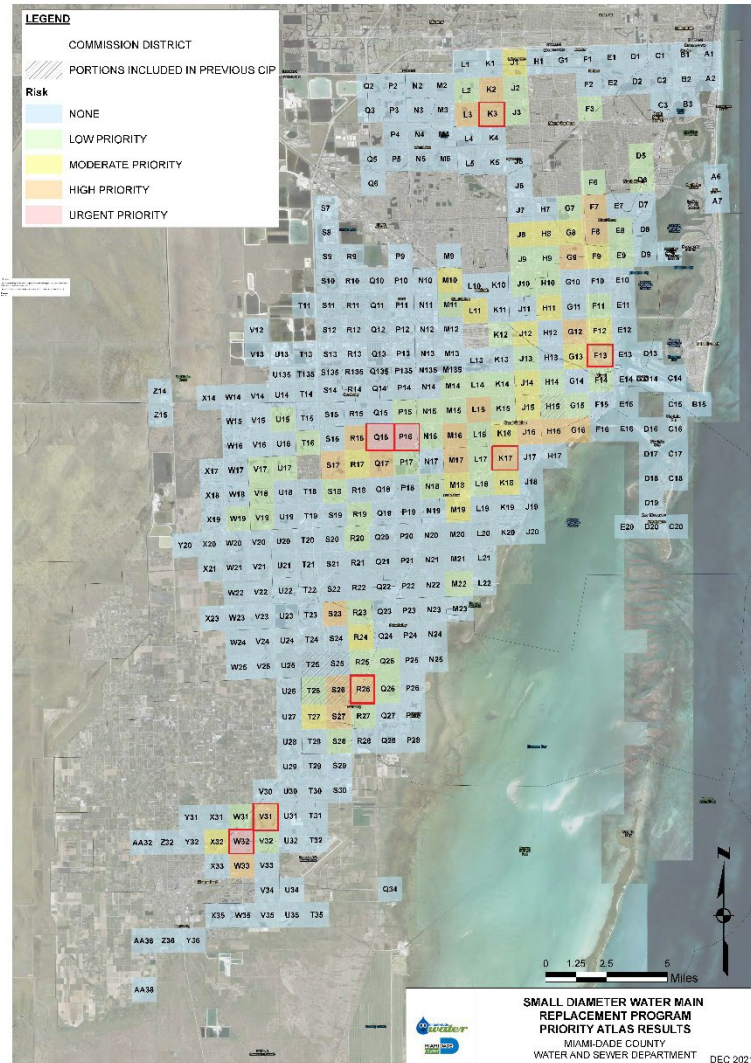


Small Business Commitment

Historical SBE Participation
(% of WASD Contract Value)



Small Water Main Replacement



□ Square Miles Under Design - 8

● Urgent Priorities - 3

● High Priorities - 24

● Moderate Priorities - 21

● Low Priorities - 55



CONNECT² PROTECT

- Countywide Program
- Conversion of 9,000 Septic Tanks
- Protects Biscayne Bay



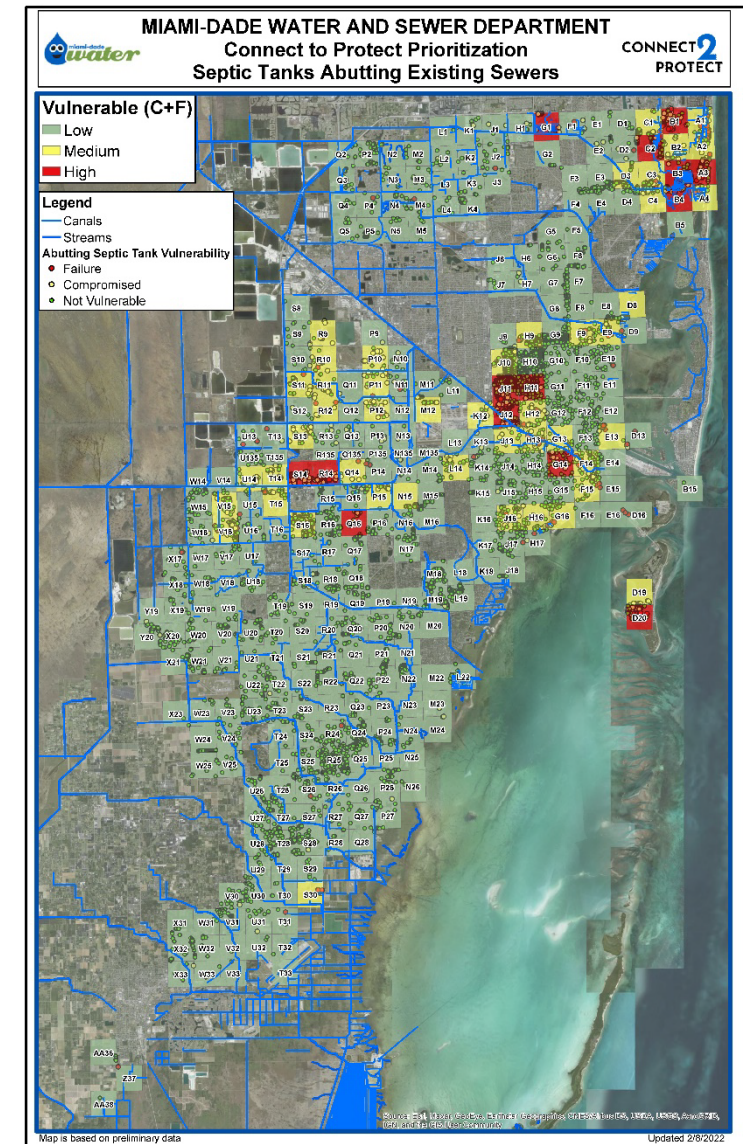
Protect your home
from damage, reduce maintenance, and get
more use from your yard



Protect your health
from exposure to overflows
and flood water



Protect our natural resources,
including our drinking water
and Biscayne Bay



Water Infrastructure Reset

Estimated Investment



\$300 Million Investment

- Increases sustainability & resilience
- Prioritized through asset management
- 33 Projects



Consent Decree

Federally Mandated Consent Decree to address **Clean Water Act Violations**. Lodged by U.S. Department of Justice and Authorized by Miami-Dade BCC

Required to complete 100% of Consent Decree Projects

2013

2021

2028

Miami-Dade County meets its regulatory, legal, and environmental obligations

65% of projects completed

- Expenditures to Date: \$1.3 Billion
- Remaining to Complete: \$0.6 Billion



Ocean Outfall Legislation

Florida Legislature passes law (403.086(9)(f)), requiring to:

- eliminate normal use of the outfalls
- reduce nutrient discharges
- implement feasible reuse systems

Required to complete 100% of Ocean Outfall and South District Expansion Projects

2008

2021

2025

**Miami-Dade County
meets its
regulatory and
environmental
obligations to the
Florida Legislature**

12.5% completed

- Expenditure to Date: \$0.3 Billion
- Remaining to Complete: \$2.1 Billion



Ensuring Capacity for Growth



Increasing Wastewater Treatment Capacity

Increasing SDWWTP AADF from 112.5 MGD → 131 MGD

Increasing SDWWTP PHF from 285 MGD → 305 MGD



Increasing Water Supply

Increasing water supply by optimizing Biscayne Aquifer wellfield operations and the C-51 reservoir project.



A&E Contracts

2022

1. Engineering Services for Grant funded projects
2. Standards / Specs
3. South Dade Maintenance Facility

2023

1. Water/WW Collection & Distribution System
2. Wastewater Treatment Plant Consultants
3. Water Treatment Plant Consultants

2024

1. General Planning for Water & Sewer

2025+

1. Hydrogeology
2. Geotechnical & Material Testing
3. Land Surveying



FEMA & Grant Consulting

\$42.7M

FDEP Grants

1. Drinking Water
Resilience Hardening
2. Schenley Park
Connect 2 Protect



Treatment Plants PSA

All treatment process and facilities



Collection & Distribution System PSA





All pipelines, pumpstations, and sewer conversions



Standards & Specifications



South Dade Maintenance Facility

| | | |
|--|---------------------|---|
|  | Engineering | Update & Finalize Plans |
|  | Permitting | Concurrent with Final Plans |
|  | Bidding | Mitigate Bid Risk with Industry Reviews |
|  | Construction | Limited Services to Certify Project |



Construction Contracts

Emergency Pool

- Small Diameter Pool
- Large Diameter Pool

Trenchless

- Pool for New Installation of Trenchless Pipeline
- Pool for Rehabilitation of Trenchless Pipeline

Miscellaneous Construction Contract 7040

- Small Businesses
- Local office
- Local Business Tax Receipt
- Qualifier – Minimum 10% Ownership

Miscellaneous Construction Contract 7360

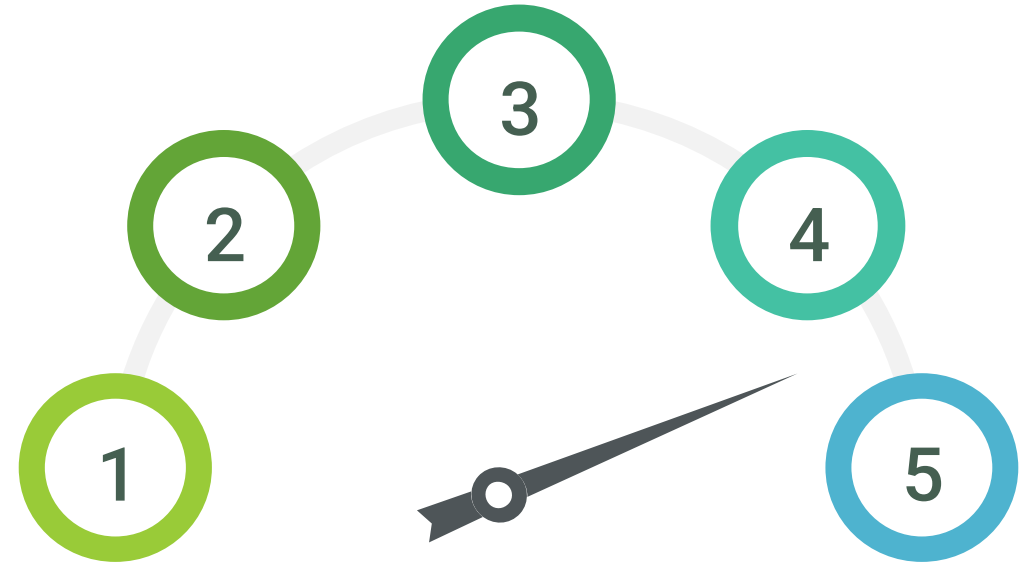
- Open to all contractors
- To be considered must respond to RTQ
- Must be registered as a vendor before award



Executing Together

Increased collaboration

- Industry Reviews prior to NTPC's
- Industry Reviews for large projects prior to Bids
- Evaluations & Feedback from Project Managers
- Enhance Our Website with CIP



- Keeping projects on track.
- Minimizing changes.
- Engaging the community.

SCHEDULE

BUDGET

STAKEHOLDERS



Quarterly Industry Forum Meetings

Late May

Second Quarter 2022

Late August

Third Quarter 2022

Mid-to-Late
November

Fourth Quarter 2022



Thank You

