

Update Period Overview

During the month of October 2016 the PMCM Team made progress in advancing a number of Consent Decree (CD) projects and associated sub/child projects. As of this recording period there are a total of 182 separate and unique projects (including original CD projects or sub/child projects) in the Consent Decree.

Some Highlights from this recording period include the following:

- Project 1.09 – Advertised for bid
- Project 2.02 (1b) – Award recommendation was completed
- Project 2.08/2.10 – 60% Design Documents were completed
- Project 2.11 – Basis of Design Report (BODR) was completed
- Project 2.12/2.13/2.16 – Completed Dewatering/Thickening Pilot Testing at CDWWTP
- Project 2.15 (1) – Contractor NTP was issued
- Project 2.24 – Construction was initiated
- Project 2.22 – Contractor bids were received
- Project 3.07 – Contractor NTP was issued for the Mechanical Scope
- Project 4.05 (1) – Contractor NTP was issued
- Project 4.09 (2) – Reached substantial completion
- Project 4.09 (22) – Contractor NTP was issued
- Project 4.09 (24) - Reached substantial completion
- Project 4.09 (25-26) – Contractor NTP was issued
- Project 4.10 (2) – Contractor NTP was issued
- Project 5.08 – Contractor NTP was issued
- Project 5.16(3) – Project was Completed
- Projects 5.17 (1) & 5.17 (2) – Initiated permitting process

Project Summary Status Table

There are currently a total of eighty-two (82) original CD projects (which includes the Supplemental Environmental Project) and one hundred and twenty-six (126) sub/child projects in the CD Program. The following table summarizes the number of projects in each project phase:

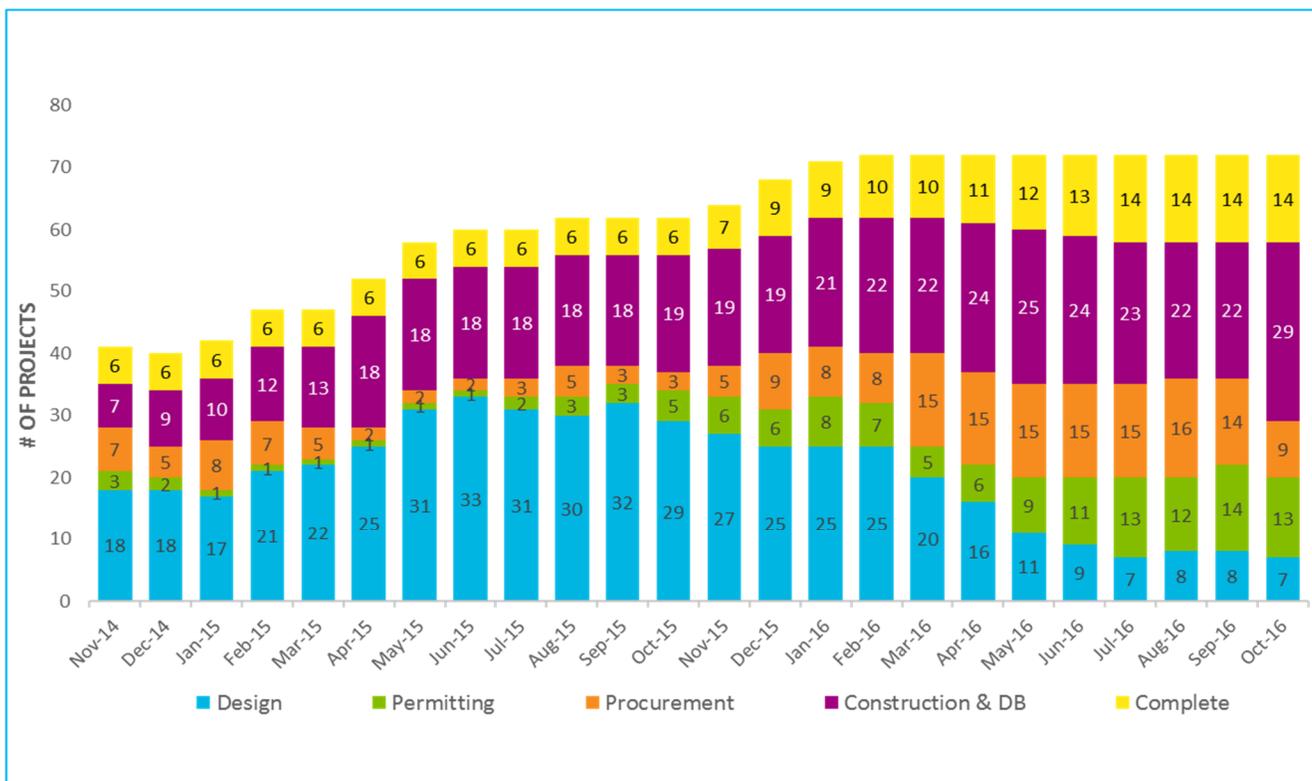
Project Phase	Consent Decree Projects (82)			Consent Decree Sub/Child Projects (126)		
	WWTP	WCTS	Total	WWTP	WCTS	Total
Validation / Planning	8	1	9	12	15	27
Pre-Design	1	0	1	7	1	8
Design	4	3	7	7	5	12
Permitting	6	7	13	6	10	16
Procurement	8	1	9	6	4	10
Construction	19	9	28	11	18	29
Design Build**	0	1	1	0	0	0
Complete	6	8	14	6	18	24
Total*	52	30	82	55	71	126

* For CD projects with multiple child projects, the most advanced status (i.e. design, construction, etc.) is used to determine the CD Project status. Where projects are broken down into child/sub projects, the project scope of work is maintained at the child/sub project level and not the parent project, which becomes solely a summary of its' sub/child projects. There are a total of 182 separate and unique projects including the sub/child projects.

This category is to differentiate design-build projects from design-bid-build projects. Projects in this phase have been awarded to a design-build contractor. **CM Office Projects are not included in the above totals.

Project Progress Chart

The following chart shows the number of CD projects in each phase per recording period.



Additions/Deletions of Sub-Child Projects

This recording period a total fourteen (18) child/sub projects were added to the Consent Decree Program Schedule. These include the following additions/changes:

- 1.03 (3) – Mixer upgrades were separated from 1.03 (1) so they can be tracked independently.
- 1.05 (3) – The Electrical work was separated from the previously completed wetwell rehab in 1.05 (1) so they can be tracked independently.
- 1.12 has been split into two child sub projects: 1.12 (2) - Actuator Replacement and 1.12 (2) – Structural Rehab and Sluice Gates Replacement
- 2.01 (7) – Future substations 7A, 8A, 9A and 10A were separated so they can be tracked independently.
- 2.01 (1) – was split into 2.01 (1a), 2.01 (1b) and 2.01 (1c) so that the individual component (asbestos abatement, Admin building interior improvements and Misc. Building Roof Improvements) can be tracked individually.
- 2.07 was split into three child/sub projects: 2.07 (1) – Secondary Clarifiers Main Project, 2.07 (2) – Train Mechanisms, and 2.07 (3) – Structural Rehab.
- 2.08 was split into three child/sub projects: 2.08 (1) – Secondary Clarifiers Main Project, 2.08 (2) – Train Mechanisms, and 2.08 (3) – Structural Rehab.
- 2.10 was split into two child/sub projects: 2.10 (1) - RAS Pump Station, and 2.10 (2) – Emergency RAS Line
- 3.05 (3) – Separated the second set of mechanisms from the first so that they can be tracked separately.
- 3.08 (4) – Separated future electrical feeders 9-14.
- 4.10 (4) – Opa-Locka Concessions Project was added to the schedule.

Areas of Concern

- Procurement Impacts – Moving the large number of CD projects through the County bid & award process continues to be a challenge. The PMCM Team continues to offer assistance with procurement through providing look ahead schedules, responding timely to County requests and appointing a procurement liaison as a single point of contact for the Consent Decree to help streamline the process
- Permitting Impacts – A number of pump station projects have been delayed during the dry run permit process due to modeling concerns raised by DERM. The PMCM continues to work with the agencies having jurisdiction to address comments and questions as they are raised.
- The following design-bid-build projects will require an expedited permitting and/or procurement process in order to maintain them within the CD compliance dates.

South District WWTP:

- 1.02 – Oxygen Production
- 1.09 – FOG Removal Facility

Central District WWTP:

- 2.19 (2) – Co-Gen Biogas Treatment Facilities
- 2.22 – Pump Station No. 2
- 2.27 – Oxygen Production

Sewer Pump Station (PS) System:

- 5.04 – Replacement of Switchgear PS#0414
- 5.06 – Replacement of Switchgear PS#0416
- 5.09 - Replacement of Pumping and Electrical Equipment at PS#0301
- 5.12 – Replacement of Switchgear at PS#0187

- The Dewatering/Thickening Project design-build is a combination of projects 1.06, 1.08, 2.12, 2.13, 2.16 and 2.18 (1). Based on the current schedule, projects 1.08 and 2.13 will be completed very close to their respective CD compliance dates. Currently this project is in procurement with qualification packages due next month. Completing the procurement process in a timely manner will be critical to completing this work on schedule.
- Delays to initiation of the Design Consultant's work has pushed out design development for Project 2.27. Due to the size and complexity of this project, any further delays could put the project completion date at risk. The PMCM Team is reviewing various options to mitigate the impact of these delays.

Individual Project Statuses

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Capacity Management Maintenance and Operations (CMOM) Activities

Continuation of Existing CMOM Programs

Adequate Pumping, Transmission & Treatment Capacity

This program was undertaken to ensure that adequate transmission and treatment capacity exists within the County. Pursuant to Appendix A of the CD; monthly capacity certification reports are prepared by RER-DERM and kept on file by WASD. Upon request, these reports will be provided to EPA/FDEP.

Current Status: This program remains in compliance with the requirements of the CD and Section 24-42.3 of the Code of Miami-Dade County.

Pump Station Remote Monitoring Program

This program involves the installation and operation of remote monitoring equipment in all Wastewater Collection and Transmission System (WCTS) pump stations, within 6 months after the County becomes operationally responsible. The pump station monitoring system shall continuously monitor, report and transmit data.

Current Status: Pump station remote monitoring equipment is installed during the pump station construction phase, prior to placing the pump station into operation. The pump station monitoring system provides the ability to continuously monitor, report and transmit data. All of the existing pump stations were upgraded with the latest technology SCADA Remote Terminal Units (RTUs) and operational software as part of Project 5.19, which was completed in November 2015.

WCTS Model

The WCTS model may be used in the development and implementation of CMOM programs to optimize transmission capacity and to evaluate the impact of I/I rehabilitation projects; proposed modifications, upgrades and expansions to the WCTS; and performance of the WCTS. The WCTS model can also be used to simulate

the manifolded force mains and private pump stations which connect into the County's force main system.

Current Status: As part of the long term objectives of the Consent Decree related to Hydraulic Model Calibration, the CD Hydraulic Modeling Team has continued efforts to update WASD's model network based on information from projects that have achieved final construction completion. In addition, efforts to incorporate changes into the model based on information related to improvement projects and development projects are ongoing.

The CD PMCM Hydraulic Modeling team and WCTS team coordinated a meeting with representative of WASD Planning Division and Miami-Dade Regulatory and Economic Resources (RER) Department to discuss the implementation of Extended Time Simulation with WASD's WCTS Hydraulic Model for the development of hydraulic capacity evaluation and design conditions associated with CD Projects. These results are implemented for the development of Point of Connection (POC) letters for submittal to RER as part of the permit application process.

The CD Hydraulic Modeling team completed modeling scenarios for the capacity evaluation and definition of design conditions for the following CD Projects in addition to the development Draft POC Letters for submittal to RER:

- CD Project 5.17 (3) - PS0370
- CD Project 5.17 (4) - PS0403
- CD Project 5.18 (1) - PS0441
- CD Project 5.18 (3) - PS0710
- CD Project 5.18 (4) - PS0827

The CD PMCM team attended several meetings to provide assessment to WASD's IT Division in the development of the GIS to Hydraulic Model Interface which is intended to achieve integration of addition and improvements projects from GIS database to Hydraulic Model in a time period of 90 days. As part of these efforts the CD Hydraulic Modeling team provides insight on the

data and formatting requirements for WCTS Hydraulic Model operation.

Spare Parts Program

This program is a spare parts inventory management program for the WCTS and WWTPs.

Current Status: The existing Spare Parts Inventory Management Program will be enhanced as the following new CMOM Programs are implemented: Gravity Sewer System Operations and Maintenance Program; Pump Station Operations and Preventative Maintenance Program; Force Main Operations, Preventative Maintenance and Assessment/Rehabilitation Program; and the WWTP Operations and Maintenance Program.

Volume Sewer Customer Ordinance Program

The Purpose of this program is to eliminate or otherwise control SSOs from the WCTS and the collection and transmission systems of present and future VSCs. Revisions are to be made to the VSC Program and the VSC Ordinance and submitted to EPA/FDEP for approval prior to implementation.

Current Status: COMPLETE - On June 30, 2015, the proposed ordinance was read before the Board of County Commissioners (BCC). The proposed ordinance was adopted on first reading and scheduled for public hearing before the Metropolitan Services (MS) Committee on Wednesday, August 26, 2015. The MS committee forwarded the VSCO to BCC with a favorable recommendation. The VSCO was presented before the BCC for the second reading and adopted on September 1, 2015. RER-DERM has received Electronic GIS Sanitary Sewer Atlas and Plan of Compliance from all VSCs.

New CMOM Programs

Fats, Oils & Grease (FOG) Control Program

This program allows the County to regulate industrial and commercial sources of oil and grease. In addition, this program involves a review, evaluation and revision of the County's previous program. RER-DERM has organized the FOG Program into the following three projects; Project 1: FOG Characterization, Control Device Design, and Management, Operation and Maintenance Standards, Project 2: FOG Control Inspections, Enforcement, Compliance and Outreach, and Project 3: FOG Ordinance and Enforcement Management.

Current Status: A FOG Control Ordinance workshop was held on May 18, 2015. The deliverable was submitted to

EPA/FDEP on the June 8, 2015 compliance date. Program is pending EPA/FDEP approval.

Sewer Overflow Response Plan (SORP)

The SORP is a program for identifying and reporting SSOs. This Plan will establish timely and effective methods and means of responding to, cleaning up, and/or minimizing the impact of SSOs; timely reporting of the location, volume, cause, impact, and other pertinent SSO information to the appropriate regulatory agencies; and timely and effective notification of SSOs to potentially impacted public. In addition, the plan involves a re-evaluation of the County's previous program.

Current Status: The SORP deliverable was submitted to EPA/FDEP on July 2, 2015 ahead of the CD Compliance Date of July 6, 2015. Program is pending EPA/FDEP approval.

Information Management System (IMS) Program

This plan will aid County managers and field supervisors to adequately track scheduled operational and maintenance activities; evaluate operations, maintenance, customer service, and sewer system rehabilitation activities; and improve overall sewer system performance.

Current Status: The IMS deliverable was submitted to EPA/FDEP on December 4, 2015 ahead of the compliance date of December 7, 2015.

Sewer System Asset Management Program

This Asset Management Program will maintain a desired level of service for The County's Sewer System considering life cycle cost to ensure compliance with regulatory requirements and the CD.

Current Status: The Sewer System Asset Management program was submitted to EPA/FDEP on the CD Compliance date of October 6, 2015. Program is pending EPA/FDEP approval.

Gravity Sewer System Operations & Maintenance Program

The Gravity Sewer System Operations and Maintenance Program will address SSOs, particularly those caused by FOG, roots and/or debris obstructions. The program will facilitate proper operation and maintenance activities associated with gravity mains in the WCTS.

Current Status: The Gravity Sewer System Operations and Maintenance Program document was submitted to

EPA/FDEP on compliance date of February 6, 2015. EPA/FDEP sent out comments on the Program on June 21, 2016. Response to EPA/FDEP comments on GSSOMP were submitted on August 12, 2016. Program is pending EPA/FDEP approval.

Pump Station Operations & Preventative Maintenance Program

The Pump Station Operations and Preventive Maintenance Program will facilitate proper operation and maintenance activities associated with the Pump Stations within the WCTS.

Current Status: The Pump Station Operations and Preventative Maintenance Program document was submitted to EPA/FDEP on April 2, 2015 ahead of compliance date April 6, 2015. EPA/FDEP sent out comments on the Program on June 21, 2016. Response to EPA/FDEP comments on PSOPMP were submitted on July 29, 2016. Program is pending EPA/FDEP approval.

Force Main Operation, Preventative Maintenance & Assessment/Rehab Program

The Force Main Operations, Preventative Maintenance and Assessment/Rehabilitation program will facilitate proper operation and maintenance activities associated with force mains within the WCTS. A criticality assessment will also be performed of the structural integrity of the force mains and the risk of force main critical failure.

Current Status: WASD has conducted condition assessments of pre-stressed concrete cylinder pipe force mains. The Force Main Operations, Preventative Maintenance and Assessment/Rehabilitation Program document was submitted to EPA/FDEP on the compliance date of August 6, 2015. Program is pending EPA/FDEP approval.

Force Main Criticality Assessment and Prioritization Report

The Force Main Criticality Assessment and Prioritization Report sets forth the results of the criticality assessment of the structural integrity of its force mains and the risks of critical failure.

Current Status: This report will be submitted following EPA/FDEP's approval of the Force Main Operation, Preventative Maintenance & Assessment/Rehab Program.

Force Main Rehabilitation/Replacement Program

The Force Main Rehabilitation/Replacement Program includes standard procedures for repairing, rehabilitating and replacing force mains.

Current Status: The Force Main Rehabilitation / Replacement Program was submitted to EPA/FDEP on December 4, 2015 ahead of the December 7, 2015 compliance date. Program is pending EPA/FDEP approval.

WWTP Operations and Maintenance Program

The WWTP Operations and Maintenance Program is being developed in accordance with Paragraph 19(h) in the CD. This program will facilitate proper operation, maintenance and equipment replacement activities associated with the WWTPs.

Current Status: The Wastewater Treatment Plant Operations and Maintenance Program document was submitted to EPA/FDEP on May 5, 2015 ahead of compliance date May 6, 2015. EPA/FDEP sent out comments on WWTP OMP on August 18, 2016. A time extension was requested and approved by EPA for the submittal of the response to their comments. The response to EPA/FDEP comments are due on November 21, 2016.

Financial Analysis Program

The Financial Analysis Program is to be developed in accordance with Paragraph 19(j) of the CD. The purpose of this program is to effectively establish and track the sufficiency of funds for operations and maintenance, capital projects financing, and debt service coverage associated with the sewer system, including, without limitation, the continued work pursuant to the CD.

Current Status: The Financial Analysis Program was completed and submitted to EPA/FDEP on December 4, 2014, ahead of the December 8, 2014 compliance date. WASD received comments from EPA and FDEP on November 25, 2015. WASD responded to EPA and FDEP comments on the Financial Analysis Program on January 29, 2016. Program is pending EPA/FDEP approval.

Wastewater Treatment Plants Projects

1.0 South District

1.01 Headworks

This project involves routine repairs on existing bar screen mechanisms in the headwork's structures prior to aerated grit chambers. Failure of bar screen mechanism could result in the blinding of the bar screen and cause an overflow of raw sewage from the plant headworks structure towards nearby surface waters, especially during peak wet weather.

Current Status: Construction on this project has commenced. The next scheduled work is grit Chamber #1, Screen #1 and Grit Chamber #2, Screen #4; both of which are expected to start in November 2016.

1.02 Oxygen Production

The purpose of this project is to replace and retrofit existing air compression units.

Current Status: This project is currently in permitting. Ongoing delays to the permitting process have put completion of this project by the compliance date at risk.

1.03 Oxygenation Trains

The purpose of this project is to retrofit aeration mixers and rehabilitate and apply surface coating to the structure.

Current Status: This project has been split into three separate child/sub projects.

Project 1.03 (1) is for the Oxygenation Trains Structural Rehab. Plant staff initiated rehabilitation of Train 1 ahead of schedule due to deteriorating conditions, and completed the work in January 2016. The balance of the trains will be rehabbed one train per year, starting February 2017.

Project 1.03 (2) includes the Electrical Building Expansion and is scheduled to start design in October 2016.

Project 1.03 (3) is for the Oxygenation Trains Mixer Upgrades. Plant Staff initiated the mixer upgrades of Train

7 in February 2016 and plans on finishing this work by late 2016.

1.04 Chlorine Building

This project involves replacement of motor control centers, relocation of electrical panels and roof repairs of the old chlorine building where flushing water pumps are to remain.

Current Status: This project is scheduled to start in mid-2017.

1.05 Effluent Pump Station

This project involves an upgrade of the existing obsolete pump control systems, upgrade of the pumps drives and motors, and structural rehabilitation of pump station wet well, i.e. chambers 2 through 4.

Current Status: This project has been split into three separate child/sub projects.

Project 1.05 (1) is for the structural rehabilitation for the effluent pump wetwells. Structural rehab on wetwell #3 was completed in September 2015, with the remaining three wetwells scheduled to be completed in the next three dry seasons.

Project 1.05 (2), is for the required building improvements as well as the equipment for the remaining pumps (1-6), which will be designed and built separately. Work on the Technical Memo was completed. The balance of the design will be completed after negotiation and issuance of a task authorization to the Design Professional has concluded.

Project 1.05 (3) includes electrical equipment associated with pumps 7, 8 and 9 and was completed in January 2016.

1.06 Gravity Sludge Thickeners

The objective of this project is to provide a combined Thickening and Dewatering facility under one common building. The existing sludge concentrators will be

abandoned and a centrifuge thickening system will be utilized.

Current Status: This project has been combined with the dewatering project (Project 1.08) and will move forward under a design-build delivery method. Pilot testing of the thickening process started in August 2015 and was completed April 29, 2016. The initial Design Criteria Package was reviewed and the final Design Criteria Package is expected to be submitted November 2016. The RFQ was advertised in July 2016 with qualification packages submitted in September 2016. Procurement of the design-builder is ongoing.

1.07 Digesters and Control Building

The project involves the rehabilitation or replacement of digester roofs; digester tank cleaning, structural rehabilitation and coating, sludge mixers improvement. This will prevent the loss of digestion capacity and the decline in biogas/methane production for power generation. In addition, it will decrease the amount of unstabilized sludge that will require landfill disposal.

Current Status: 100% design documents have been submitted and reviewed. The FDEP permit was submitted and review is ongoing. The remaining design for substations 7 & 8 is pending a task authorization to the design consultant. The drawings for the Digesters and Control Building will be combined with the substation documents into one bid package.

1.08 Dewatering Facility

The purpose of this project is to replace the existing interim dewatering building with a new permanent thickening and dewatering combined facility. This will improve sludge dewatering and decrease solids accumulation in the secondary treatment process and prevent effluent limit violations.

Current Status: This project has been combined with the sludge thickening project (Project 1.06) and will move forward under a design-build delivery method. Pilot testing of the thickening process started in August 2015 and was completed April 29, 2016. The initial Design Criteria Package was reviewed and the final Design Criteria Package is expected to be submitted November 2016. The RFQ was advertised in July 2016 with qualification packages submitted in September 2016. Procurement of the design-builder is ongoing.

1.09 FOG Removal Facility

The current FOG separation tank is not capable of adequately handling solids load, resulting in excess odors

and unanticipated manual labor to remove large amounts of grit, settled soils and hardened grease. The purpose of this project is to improve separation operations to the recently constructed FOG removal facility. This will result in the conveyance of oils and floating grease to a beneficial use option process and the removal of excess grit and settled solids.

Current Status: This project is currently in procurement.

1.10 Odor Control

The purpose of this project is to upgrade the odor control facilities.

Current Status: This project is scheduled to start in June 2018.

1.11 General Electric

This project involves the rehabilitation and replacement of electrical equipment, controls and wiring as needed throughout the plant.

Current Status: This project schedule has been broken down into multiple child/sub projects to better reflect the way the work is being executed. This month the child projects were reorganized to reflect the current implementation plan. A summary status of each scope element is as follows:

1.11 (1) – SDWWTP General Electrical Misc. Construction

- Generator enclosures and remote radiators – In design.
- Replacement of substations 9, 10, 11 and 12 - scheduled to start late 2016.

1.11 (2) – Replacement of primary feeders from Main Switchgear A & B to Effluent Pump Station Pumps 1 through 6 (Part of Project 1.05 (2))

- Replacement of primary feeders from Main Switchgear “A” in Electrical Building 1 to Effluent Pump Station Pumps 1 through 3 – currently in pre-design.
- Replacement of primary feeders from Main Switchgear “B” in Electrical Building 1 to Effluent Pump Station Pumps 4 through 6) – currently in pre-design.

1.11 (3) – Replace Primary Feeders from Elect. Bldg. 1 to Substation 8 (Part of Project 1.07)

- Replacement of primary feeders from Main Switchgear “B” in Electrical Building 1 to Digester Building 2 – Currently in design/permitting.

- Replacement of primary feeders from Main Switchgear "A" in Electrical Building 1 to Substation 7 feeding Digester Building 1 – Currently in design/permitting.

1.12 Chlorine Contact Chamber Structural Rehab

This project involves the structural rehabilitation and coating of chlorine contact chambers 1 through 4.

Current Status: This project has been split into two separate child/sub projects.

Project 1.12 (1) – Actuator Replacement - Construction is ongoing (electrical work).

Project 1.12 (2) – Structural Rehab – Currently in pre-design.

2.0 Central District WWTP

2.01 Miscellaneous Electrical Improvements

This project involves the rehabilitation and replacement of electrical controls and wiring as needed throughout the plant.

Current Status: This project schedule has been broken down into multiple components more accurately reflect the way the work is being executed. A summary status of each scope element is as follows:

- 2.01 (1) CDWWTP General Electric In-house Construction - Substations 1 & 2 were completed on May 5, 2016.
- 2.01 (2) – Substations 3, 4A, 4B, 5 & 6 – This work is part of Project 2.27, which is currently in design.
- 2.01 (3) - Substations 9 & 10 - This work is part of Project 2.10, which is currently in design and permitting.
- 2.01 (4) - Substations 11 & 12 – This work is part of project 2.11, which is currently in pre-design.
- 2.01 (5) - Substations 15 & 16 – This work is part of Project 2.15, which is currently in procurement.
- 2.01 (6) - Substations 17 & 18 – This work is part of Project 2.19 (2a), which is currently in permitting.
- 2.01 (7) - Substations 7A, 8A, 9A & 10A - Scheduled to start in early 2017.

2.02 Repairs to Various Buildings

The project involves the repair of maintenance, operations control and administration buildings at the plant. It includes the repair of the roofs and the staff facility.

Current Status: This project is split into four child/sub projects.

- Project 2.02 (1a) - Administration Building & asbestos abatement - Complete.
- Project 2.02 (1b) – Administration Building Interior Renovations – An award recommendation was made in October 2016 with contractor NTP scheduled for November 2016.
- Project 2.02 (1c) – Misc. Roof Repairs – Currently in construction.
- Project 2.02 (2) – Remodel bathrooms, locker rooms and showers - Currently in procurement.

2.03 Headworks/Grit Basin Plant 1

The existing screening facilities at the CDWWTP influent pump station are inefficient. This results in the accumulation of rags and plastics in plant processes which sometimes leads to pump, mixer and clarifier

collection mechanism failure. This project involves the addition of influent screens and an electrical room with upgraded electrical instrumentation.

Current Status: In construction. Contractor NTP was issued August 30, 2016.

2.04 Headworks/Grit Basin Plant 2

The existing screening facilities at the CDWWTP influent pump station are inefficient. This results in the accumulation of rags and plastics in plant processes which sometimes leads to pump, mixer and clarifier collection mechanism failure. This project involves the addition of influent screens and an electrical room with upgraded electrical instrumentation.

Current Status: In construction. Contractor NTP was issued August 30, 2016.

2.05 Oxygenation Trains Plant 1

The project involves the retrofitting of the aeration mixers, structural rehabilitation and surface coating application.

Current Status: Mixer retrofits were completed in early 2014. Structural rehab work for Train #2 and Train #3 are scheduled to be performed over the next two dry seasons.

2.06 Oxygenation Trains Plant 2

The project involves the retrofitting of the aeration mixers, structural rehabilitation and surface coating application.

Current Status: Installation of mixers for all trains was completed with in-house resources in February 2016. Electrical work, including expanding the existing substation/MCC structure was started in February 2015 and is ongoing. The structural rehab for Train #3 was completed in February 2016 and work on Train #1 is ongoing by WASD in-house forces.

2.07 Secondary Clarifiers Plant 1

The purpose of this project is to rehabilitate the structure and replace the sludge collection mechanisms in the plant.

Current Status: This project has been split into three separate child/sub projects.

Project 2.07 (1) is for the main scope of work. Start and finish of this project has been moved forward. Work on this project will be performed in conjunction with Project 2.09, both of which are currently scheduled to start design in October 2017.

Project 2.07 (2) is for the upgrades of the Trains Mechanisms and is scheduled to start in November 2017.

Project 2.07 (3) includes the structural rehab of the Trains. Design is scheduled to start in June 2017.

2.08 Secondary Clarifiers Plant 2

The purpose of this project is to rehabilitate the structure, replace the sludge collection mechanisms in the plant and provide electrical equipment for new annex building.

Current Status: This project has been split into three separate child/sub projects.

Project 2.08 (1) is for the main scope of work. This project is currently in the 100% design phase.

Project 2.08 (2) is for the upgrades of the Trains Mechanisms and is scheduled to start in November 2017.

Project 2.08 (3) includes the structural rehab of the Trains. Design is scheduled to start in June 2017.

2.09 Return Sludge PS Plant 1

This project involves the replacement of return sludge pump, piping, motor control centers and structural repairs to the pump stations.

Current Status: Start and finish of this project has been moved forward. Work on this project will be performed in conjunction with Project 2.07, both of which are currently scheduled to start design in October 2017.

2.10 Return Sludge PS Plant 2

This project involves the replacement of return sludge pump, piping, motor control centers and structural repairs to the pump stations.

Current Status: This project has been split into two separate child/sub projects.

Project 2.10 (1) is for the RAS Pump. This project is currently in the 100% design phase.

Project 2.10 (2) is for the RAS Pipe. Due to deteriorating conditions, the replacement of the RAS Header pipe was advanced ahead of the remaining scope of this project. This portion of the work was procured as an emergency contract and a notice to proceed was provided to the contractor on April 21, 2016. Currently the contractor has mobilized and is procuring materials.

2.11 Effluent Pump Station

The purpose of this project is to replace the pump in the effluent pump station.

Current Status: This project is currently in the BODR phase.

2.12 Gravity Sludge Thickeners Plant 1

The objective of this project is to provide a combined Thickening and Dewatering facility under one common building. The existing sludge concentrators will be abandoned and a centrifuge thickening system will be utilized.

Current Status: The initial Design Criteria Package was reviewed and the final Design Criteria Package is expected to be submitted October 2016. The dewatering/thickening pilot study was initiated in January 2016 and is ongoing. The RFQ was advertised in July 2016 and procurement of the design-builder is ongoing. This project will be performed in conjunction with projects 2.13 and 2.16 under a design-build delivery method.

2.13 Gravity Sludge Thickeners Plant 2

The objective of this project is to provide a combined Thickening and Dewatering facility under one common building. The existing sludge concentrators will be abandoned and a centrifuge thickening system will be utilized.

Current Status: The initial Design Criteria Package was reviewed and the final Design Criteria Package is expected to be submitted October 2016. The dewatering/thickening pilot study was initiated in January 2016 and is ongoing. The RFQ was advertised in July 2016 and procurement of the design-builder is ongoing. This project will be performed in conjunction with projects 2.12 and 2.16 under a design-build delivery method.

2.14 Digesters Plant 1

This project involves the complete rehabilitation of sludge digester clusters, i.e. roofs, concrete structures, recirculation and transfer pumps, mixers, and electrical pumps. This will prevent the loss of digestion capacity and the decline in biogas/methane production for power generation. In addition, it will decrease the amount of unstabilized sludge that will require landfill disposal.

Current Status: This project is currently under evaluation in conjunction with overall plant digestion capacity requirements.

2.15 Digesters Plant 2

This project involves the complete rehabilitation of sludge digester clusters, i.e. roofs, concrete structures, recirculation and transfer pumps, mixers, and electrical pumps. This will prevent the loss of digestion capacity and the decline in biogas/methane production for power generation. In addition, it will decrease the amount of unstabilized sludge that will require landfill disposal.

Current Status: The order of the digester cluster work has been changed back to the original order of 1-2-3. The status of each cluster is as follows:

- 2.15 (1) Cluster 1 – Contractor NTP was issued October 31, 2016.
- 2.15 (2) Cluster 2 – currently in permitting
- 2.15 (3) Cluster 3 – currently in pre-design
- 2.15 (4) Cluster 4 is currently on hold. The scope of work for this cluster is under evaluation.

2.16 Dewatering Building

The purpose of this project is to construct a new combined thickening and dewatering facility and sludge cake conveyance system to the sludge storage buildings.

Current Status: The initial Design Criteria Package was reviewed and the final Design Criteria Package is expected to be submitted October 2016. The dewatering/thickening pilot study was initiated in January 2016 and is ongoing. The RFQ was advertised in July 2016 and procurement of the design-builder is ongoing. This project will be performed in conjunction with projects 2.12 and 2.13 under a design-build delivery method.

2.17 Chlorination Facilities

This project involves the design and construction of a new bulk sodium hypochlorite storage and dosing system in separate outdoor structures to replace the existing chlorine gas system.

Current Status: Project is currently in construction.

2.18 Odor Control Systems

This involves the replacement of the motor control center of the odor control buildings including air-conditioned electrical rooms. It also involves replacement of odor control chemical pumps, piping, valves and gas stripping tower media.

Current Status: This project will be completed in conjunction with other related projects. A portion of this project is being performed in coordination with the Headworks projects (2.03/2.04), which is currently in construction. The balance will be performed in

coordination with the Dewatering project (2.16), which is currently in procurement.

2.19 Co-Gen Improvements

The project involves the installation of two new cogeneration engines, cogeneration building improvements, replacement of biogas pipeline and installation of biogas conditioning system.

Current Status: 2.19 (1) includes the generator replacement, which was completed in January 2016.

2.19 (2a) includes the co-gen biogas treatment facility, and is currently in permitting and procurement.

2.19 (2b) includes the co-gen restrooms and building rehab, and is currently in 100% design stage.

2.20 Septage Unloading Station

This project involves the construction of a new septage handling station to remove FOG from the main wastewater treatment stream and treat either through digestion or an off-site third part facility.

Current Status: In lieu of constructing improvements to the CDWWTP Septage Unloading facilities, WASD discontinued the process of receiving septage at the CDWWTP and has shut down the septage unloading facilities. Septage has been diverted to the SDWWTP as of January 2013 ahead of the compliance date of June 3, 2022.

2.21 Pump Station No. 1

The purpose of this project is to rehabilitate the pump station for the odor control system and rehabilitate the bar screen mechanisms.

Current Status: This project is currently in the BODR stage.

2.22 Pump Station No. 2

This project involves the rehabilitation of the pump station odor control system, rehabilitation of bar screen mechanism, and replacement pump stations flow metering to improve maintenance accessibility.

Current Status: This project is currently in procurement. Pre-purchasing of the long lead items (plug valves and flow meters) is ongoing.

2.23 O2 Process Controls Phase 2

Existing oxygen production systems are either failing or obsolete. The purpose of this project is to replace existing oxygen production systems.

Current Status: COMPLETE – This project was substantially completed on April 25, 2016.

2.24 Gas Monitoring and Alarms

The purpose of this project is to monitor gas levels and place alarms in hazardous areas.

Current Status: This project is currently in construction.

2.25 Ventilation Improvements

The purpose of this project is to improve ventilation in hazardous areas.

Current Status: This project schedule has been broken down into multiple components to more accurately reflect the way the work is being executed. A summary status of each scope element is as follows:

- 2.25 (1) – HVAC Improvements for Air Scrubber Building – This work is not scheduled to start until 2019.
- 2.25 (2) – Headworks HVAC Improvements (Project 2.03/2.04) – In construction
- 2.25 (3) – Digester Control Building HVAC Improvements (Project 2.15) – In construction
- 2.25 (4) – Pump Station 1 HVAC Improvements (Project 2.21) – In design
- 2.25 (5) – Pumps Station 2 HVAC Improvements (Project 2.22) – In procurement

2.26 Rehabilitation of Walkways and Stairways

This project involves the replacement of corroded walkways, stairways, railings, grating throughout the plant.

Current Status: Construction started in September 2013 and is ongoing. Work is being performed by in-house WASD resources.

2.27 Oxygen Production

The purpose of this project is to construct a new 80 ton/day oxygen production cryogenic tower and air compression unit to provide full redundancy.

Current Status: This project has been split into two separate child/sub projects.

Project 2.27 (1) is for the initial site preparation and utility relocation work and is currently in 30% design phase.

Project 2.27 (2) is for the balance of the work that will be completed under a design-build delivery method. The BODR was completed in 2015 and work on the design criteria package is ongoing.

Delays to initiation of the Design Consultant's work has pushed out design development for Project 2.27. The PMCM is reviewing options to bring this work back within the compliance date.

2.28 SCADA RTU Upgrades

The old radio communication system was obsolete and it was difficult to procure parts. The purpose of the project was to upgrade the SCADA remote telemetry units to maintain operational sustainability.

Current Status: COMPLETE - Work started in October 2013 and was completed on February 10, 2014.

2.29 High Strength High Strength Influent Impact Study

The CDWWTP was experiencing an increase in TSS and BOD loading. This study investigated the sources and conceptualized solutions to eliminate or mitigate the change in plant influent characteristics.

Current Status: COMPLETE – Work started February 2013 and was completed June 5, 2014.

2.CM CDWWTP Construction Management Office

This project is to construct the permanent offices to house construction management staff from the Consent Decree and Ocean Outfall Legislation Programs at the Central District Plant.

Current Status: This project is in pre-design.

2.SM CDWWTP Storm Water Master Plan

This project is to develop the overall storm water master plan for the Central District Plant.

Current Status: Development of the Stormwater Master Plan is ongoing with a scheduled completion date in February 2017.

3.0 North District WWTP

3.01 Headworks and Sludge Degritting & Transfer

This project is a two phase approach to improve the existing screening facilities at the NDWWTP. In Phase 1, bar screens are replaced with perforated plate screens and Phase 2 involves the upgrade of the pretreatment buildings for fire code compliance and replacement of primary sludge grit separation equipment.

Current Status: Contractor NTP was issued in November, 2015. The pre-purchase screens have all been delivered and construction work is ongoing.

3.02 Primary Clarifiers and Odor Control

This project involves the rehabilitation of the structures of the primary clarifiers, replacement of the mechanisms, installation of new flat type covers at each clarifier and rehabilitation of the mechanical and odor control systems at the plant.

Current Status: This project is currently in the 100% not for construction design stage.

3.03 Oxygenation Trains

The purpose of this project is to rehabilitate the structures of the aeration tanks and its mechanical and electrical systems.

Current Status: Work on this project is scheduled to start in July 2018.

3.04 Oxygen Production

This project involves the rehabilitation of the structure of the oxygen plant and its mechanical and electrical systems.

Current Status: This project is currently in pre-design.

3.05 Secondary Clarifiers

This project involves the rehabilitation of the structure of the secondary clarifiers and its mechanical and electrical systems.

Current Status: This project has been split into three child projects.

Project 3.05 (1) – Replace mechanisms #3, 6 & 8 – Complete.

Project 3.05 (2) – Secondary Clarifiers Main Design Package – Currently in 60% design.

Project 3.05 (3) – Replace Mechanisms #1, 2, 4, 5, 7, 9 & 10 – Currently in construction.

3.06 Disinfection

This project involves the replacement of the chlorine gas storage, liquid chlorination and dosing system with bulk sodium hypochlorite storage and dosing system in the existing chlorine building.

Current Status: This project is currently in permitting.

3.07 Effluent Disposal

This project involves the installation of standby pumps to ensure effluent disposal capacity and the structural rehabilitation of the ocean outfall pump station wet well.

Current Status: All of the 3.07 work has been combined into a single project. The Deep Injection Well (DIW) mechanical and electrical equipment is being managed by WAsD Plant Staff. The CD scope is limited to pumps 5-6, where pumps 1-4 will be funded through the overall WAsD CIP. Construction of the electrical equipment scope of work was previously completed. Structural assessment and rehab of the Ocean Outfall Pump Station and associated piping and electrical work was completed during the 2015 dry season.

The final scope of work to be completed is the mechanical portion of pumps 5 and 6, which started construction in October 2016.

3.08 Plant Wide Electrical

This project involves the rehabilitation and replacement of electrical controls and wiring as needed at the NDWWTP.

Current Status: This project schedule has been broken down into multiple child/sub projects to better reflect the way the work is being executed. A summary status of each scope element is as follows:

Project 3.08 (1) – NDWWTP General Electrical In House Construction.

- Complete - Feeders 1 and 2 have been replaced.

Project 3.08 (2) – Electrical Feeders 3-6

- Feeders 3-6 will be replaced in conjunction with Project 3.01, which is currently under construction.

Project 3.08 (3) – Electrical Feeders 7-8

- Feeders 7 and 8 will be replaced along with Project 3.04 (Construction start is December 2019).

Project 3.08 (4) – Electrical Feeders 9-14

- Feeders 9-14 are related to a new future electrical building which is pending WASD's decision to construct this new building.

3.09 Flood Mitigation

The purpose of this project is to mitigate the flood potential in the generator and electrical building at the NDWWTP.

Current Status: COMPLETE – Work was substantially completed by WASD in-house forces in June 2016.

3.10 Yard Piping Replacement

The purpose of this project is to replace the wastewater piping that interconnects unit processes throughout the plant.

Current Status: COMPLETE - Rehabilitation on the first of two 84" pipes was completed by WASD plant staff in September 2015, and the second was completed in May 2016.

3.11 SCADA RTU Upgrades

The current radio communication system is obsolete and it is difficult to procure parts. The purpose of the project is to upgrade the SCADA remote telemetry units to maintain operational sustainability.

Current Status: COMPLETE - Installation started in September 2013 and was completed on November 26, 2014.

3. CM NDWWTP Construction Management Office

This project is to construct the permanent offices to house construction management staff from the Consent Decree and Ocean Outfall Legislation Programs at the North District Plant.

Current Status: A design NTP was previously issued, however the design work is currently on hold.

Wastewater Collection and Transmission Lines

4.01 Collection System I/II Repair

The project targets defective gravity sewers with excessive inflow/infiltration. It involves evaluation and rehabilitation of the Gravity Collection System, i.e. dig & replace mainlines and laterals, manhole replacement, cured-in-place liners and sectional liners and will be performed concurrently with other work.

Current Status: Work on I/I repairs commenced in 2013 utilizing current WASD contracts, to compliment these efforts the CD PMCM team have 5 projects in various stages to both evaluate and repair sections of the sewer collection system.

The SSES contract (CCTV), NTP was March 14th 2016 and work continues in the field and the review technicians to identify defects, A total of 615,450 LF of CCTV and 3013 MH images have been completed to the end of October 2016.

The CIPP contract NTP was provided on December 7, 2015. Construction work nearing the end with only minor punch list items to complete, and the Contractor has successfully completed 262 repairs comprising lining of sewer main and laterals. In total, 62,156 LF of mains and 560 LF of lateral repairs have been completed.

All three Dig and Replace Contracts (A & B) have reached the end of their contract duration and are in close out stage Dig and Replace C has depleted its funding and is also in close out. Overall progress has been being made on various types of repairs, including: main line replacements, point repairs and lateral replacements, with 305 repairs completed as of this recording period, this equates to 13,927 LF of mains and laterals repaired or replaced as well as all the follow on restoration works that follow the repairs.

Specifications for the FY2017 contracts are in varying stages of procurement: the 25,000LF Dig and Replace contract bids were received and the apparent low bidder has been forwarded to ISD for approval/review, the 60,000LF CIPP contract has a bids due date on 11/22/16 and the 1.5m LF SSES contract is out for procurement with bids due on 12/01/16.

4.02 Government Cut FM – Phase 1 & 2

The purpose of this two phase project is to replace critically damaged sections of 54-inch force main to avert catastrophic failures in Government Cut. This project involved the replacement of 54 inch FM with 60 inch FM from the water shaft in Government Cut to mainland Miami Beach.

Current Status: COMPLETE – Construction started in October 2011 and was substantially completed September 30, 2013.

4.03 Government Cut FM – Phase 3

The Government Cut FM Phase 3 (Norris Cut Utility Relocation Project) is comprised of the following; the existing 54" force main underneath Norris Cut between Fisher Island and the Central District Wastewater Treatment Plant (CDWWTP), on Virginia Key, will be replaced with a new 60" force main lowered to elevation minus (-) 67.50 feet mean sea level. A new 8" force main will be constructed from Pump Station 170, on Fisher Island, connecting to the new 60" force main near the tunnel receiving shaft. The 60" pipeline alignment will be constructed via segmental tunnel trenchless technology, and open cut trenching method. The 8" pipeline alignment will be constructed via horizontal directional drilling (HDD) trenchless methodology.

Current Status: This project is currently in construction.

4.04 North Dade 72" PCCP Force Main Rehabilitation

The project replaces a damaged section of 72-inch force main that has experienced catastrophic failure. The rehabilitation involves 3.5 miles of 72 inch PCCP FM located between NW 17 Avenue and NE 10 Avenue in North Dade.

Current Status: COMPLETE- Construction started in September 2015 and was substantially completed May 05, 2016.

4.05 South Dade 54" PCCP Force Main Rehabilitation

The project involves the rehabilitation of 2.5 miles of 54 inch PCCP FM from SW 112 Avenue and SW 280 Street to SW 107 Avenue and SW 248 Street in South Dade. It replaces sections of the 54" force main that has critically damaged pipe segments.

Current Status: This project has been split into two (2) separate child projects; one which includes approximately four (4) miles of a new 54" pipe and another for the rehabilitation of the existing line, which will be completed after the new line is in service and will be used for future redundancy.

Project 4.05 (1) – NTP was issued October 19, 2016 and the project is currently in construction.

4.06 Replacement of Tamiami Canal Aerial Crossing Force Mains at NW 37 Ave.

This project replaces corroded twin 24 inch FM's crossing the Tamiami Canal at NW 37 Avenue, just south of NW 21 Street in the Tamiami area. The twin 24-inch force mains have experienced failures and are in need of replacement.

Current Status: COMPLETE – This project was substantially completed on May 27, 2014.

4.07 Replacement of 18" DIP Force Main in Miami Lakes

The purpose of this project is to replace severely corroded 18-inch pipe that has had multiple failures. It replaces one mile of 18 inch DIP FM located at NW 60 Avenue and NW 138 Street.

Current Status: COMPLETE – This project was substantially completed on December 7, 2015.

4.08 Rehabilitation of 54" PCCP FM in the City of Miami

A section of 54-inch force main in the City of Miami is deteriorated and has experienced failures. The project involves the rehabilitation or replacement of approximately 2 miles of 54" PCCP FM by cured-in-place liner located within the four mile segment of pipe between NW 2 Street and NW 67 Avenue to NW 37 Avenue and NW 11 Street in the City of Miami.

Current Status: This project has been split into two separate child projects. The first (4.8.1) includes the two miles of PCCP pipe rehabilitation as stipulated in the Consent Decree scope. The second child project (4.8.2)

includes the remaining two miles of pipe rehab or replacement necessary to ensure the long term integrity of this force main segment. Both sections are included under one single contract, which was issued NTP September 27, 2016 and is currently in construction.

4.09 Replace Approximately 30 Miles of Asbestos Concrete Pipe (ACP) FM Transmission System

The purpose of this project is to replace asbestos cement force mains that have experienced failures and are difficult to locate in the field. It will replace approximately 30 miles of ACP FM transmission system.

Current Status: This project has been divided into multiple separate sub/child projects. See individual statuses below:

4.09 (1) - Replacement of 2673 lf of 10"ACPFM on SW 112th Ave, from 112th St to 104th St

Current Status: Validation of this project indicates that some or all of the ACPs required to be replaced have been previously completed. Investigations and confirmation of actual work in place is ongoing.

4.09 (2) - RFQ T2145 Replacement of approx. 671 lf of 8" and 1618 lf of 10" ACP FMs with 2403 lf of 12" DIP FM from pump station (PS) #0455 along NE 14 Ave. to existing 12" FM at Miami Gardens Dr.

Current Status: COMPLETE – This project was substantially complete on 10/25/16.

4.09 (3, 4, 5, 8) - RPQ T1811 replacement of force main from pump station no. 0356 to NW 183rd St and 52nd Ave.

Current Status: COMPLETE – This project was substantially complete on 8/11/14.

4.09 (6, 7) - Replacement of existing 325 lf 6" ACP FM w/ 340 lf 6" DIP FM from PS#0362 to NW 52 Ave.

Current Status: A purchase order was issued in September 2016 with Contractor NTP and start of construction anticipated in November 2016.

4.09 (9, 10, 11, 12, 13) - Replacement of 6, 8, and 12" ACP force mains between PS#0385, PS#0374, and the juncture of NW 199th St and 37th Ave

Current Status: COMPLETE – This project was substantially complete on August 7, 2015.

4.09 (14, 15, 16, 17, 18, 19) - Replacement of 10, 8 & 6" FM in NW 29 place from PS#0376 and PS#0427 to NW 194 St (PS# 0375) and NW 34 St (PS# 0377) and NW 194 Terr. to PS#368

Current Status: COMPLETE – This project was substantially complete on June 3, 2015.

4.09 (20, 21) - Replace 467 lf of 8", 1,945 lf of 10" and 262 lf of 12" ACP FMs with 161 lf of 8" DIP FM and 2,753 lf of 12" DIP from PS# 0366 to NW 199 St/39 Ave. replace 557 lf of 4"ACP FM with 6-inch DIP from 39 Ave to PS# 0369

Current Status: This project is currently in construction. NTP was provided August 22, 2016.

4.09 (22) - Replace approx. 1770 lf of 6"ACP FM, 97 lf of 6" CI FM and 146 lf of 6" ACP FM with approx. 2119 lf of 8" DIP FM from PS#0352 to PS#0358.

Current Status: This project is currently in construction. NTP was provided October 3, 2016.

4.9 (23) - Replace existing 8"ACP FM with approx. 1857 lf of 8" DIP FM from PS#1022 at SW 348 St and SW 189 Ave to existing 12" DIPFM along SW 352 St and 286 lf of 8" DIPFM along 187 Ave

Current Status: This project is currently in permitting.

4.09 (24) - Replace approx. 840 lf of existing 8"ACP FM w/ 8" DIP FM along NW 49 Ct from PS#0353 to NW 177 St.

Current Status: COMPLETE – This project was substantially complete on October 27, 2016.

4.09 (25, 26) - Replace 1,040 lf of 10"ACP FM with 1,040 lf of 12" DIP FM from NW 173 Dr. and NW 52 Ave to NW 177 St and NW 52 Ave

Current Status: This project is currently in construction. NTP was provided October 7, 2016.

4.09 (27) - Replace exist. 4"ACP FM with 263 lf of 4" DIP FM from exist plug valve west from right of way line, along SW 149 Terr to exist 8" DIPFM at intersection of SW 149 Terr and SW 89 Ave.

Current Status: COMPLETE – This project was substantially complete on November 20, 2015.

4.09 (28) - Replace 8"ACP FM from PS#0786 to MH 5, 8" DIPFM from SW 19 St and SW 102 Ave to SW 16 St and 6"ACP FM from PS#0784 to SW 102 Ave and SW 20 St

Current Status: Validation of this project indicates that some or all of the ACPs required to be replaced have been previously completed. Investigations and confirmation of actual work in place is ongoing.

4.09 (29, 30, 31) - Replace existing 6"PVC FM, 6" and 12"ACP FM from SW 107 Ave and SW 76 St and 6"PVC FM, 10"ACP FM and 10" steel pipe from PS#0812 to SW 102 Ave and 84 St

Current Status: This project is currently in permitting.

4.09 (32) - Replacement of existing 684 LF of 12" ACP FM with 684 LF OF 12" DIP FM in SW 107TH Ave, from 104TH St to Kendale Blvd

Current Status: This project is currently in procurement. Contractor NTP is scheduled for October, 2016.

4.09 (33) - Replacement of 1,701 lf of 4" ACP FM with 8" DIP from PVT PS at SW 104th Ave and 169th St to MH 42 at theoretical SW 103rd Ave

Current Status: COMPLETE – This project was substantially complete on August 12, 2016.

4.09 (34-43) - PCTS 13182, 13184, 13189 replace 4", 6", 8", 10" and 12"ACP FMs

Current Status: This project is currently in pre-design.

4.09 (44, 45) - Replace 1240 lf of 8"ACP FM with 8" DIP FM from PS#0810 to SW 72 St

Current Status: Validation of this project indicates that some or all of the ACPs required to be replaced have been previously completed. Investigations and confirmation of actual work in place is ongoing.

4.09 (46) - Replace of approx. 157 lf of 6" ACP FM with 179 lf of 8" DIP FM from 147 ft. south of SW 155 St center line on SW 107 Ct west to utility easement

Current Status: This project is currently in pre-design.

4.09 (47) - Replacement of approx. 1023 lf of 8" ACP FM w/ 8" DIPFM from PS#0869 along SW 122 Ave to 88th St centerline

Current Status: This project is currently in construction. NTP was provided September 26, 2016.

4.09 (48-53, 63) - Replace 8" and 10" ACP FM with approx. 11,735 LF of 16", 12" and 8"DIP FM from SW 142 Ave and SW 288 St to SW 123 Ct and SW 258 St.

Current Status: This project is currently in 90% design review.

4.09 (54, 55, 56) - Replace 5285 lf of 12" ACP FM with 36" DIP FM from SW 137 Ave to SW 147 Ave and replace 2468 lf of 8" ACP FM with 24" DIPFM from PS#0864 along SW 147 Ave to SW 72 St

Current Status: Validation of this project indicates that some or all of the ACPs required to be replaced have been previously completed. Investigations and confirmation of actual work in place is ongoing.

4.09 (57, 58, 59) - Replace 1183 lf of 8" ACP FM with 12" DIP FM, 2129 lf of 10" ACP FM with 16" DIPFM, 1750 lf of 12" ACP FM with 24" DIP FM, 986 lf of 6" ACP FM with 12" DIPFM and 1760 lf of 8" ACP FM with 12" DIPFM by Kendale Lakes Blvd from SW 142 Ave to SW 137 Ave

Current Status: Validation of this project indicates that some or all of the ACPs required to be replaced have been previously completed. Investigations and confirmation of actual work in place is ongoing.

4.09 (60, 61, 62) - Replace 1,500 lf of 8" ACP FM with 8" DIPFM from PS#1013 to PS#1012 and then 2,550 lf of 10" ACP FM with 12" FM from PS#1012 to SW 144 Ave and SW 280 St

Current Status: Design work on this project is anticipated to start in the first quarter of 2017.

4.09 (64) - Replace 1236 lf of 6" ACP FM along SW 296 St from PS#1009 East of SW 144 Ct to SW 147 Ave redirecting flow to existing 48" DIPFM and installing 50 lf of 6" DIPFM and 40 lf of 8" DIPFM

Current Status: Validation of this project indicates that some or all of the ACPs required to be replaced have been previously completed. Investigations and confirmation of actual work in place is ongoing.

4.09 (65) - Replacement of approx. 2250 lf of existing 6" ACP FM with 8" DIP FM from PS#1005 to PS#1006

Current Status: Design work on this project is anticipated to start in the first quarter of 2017.

4.09 (66) - Replace approx. 120 lf of 8" ACP FM with 8" DIPFM from PS#1002 to SW 152 Ave and 304 St

Current Status: Design work on this project is anticipated to start in the first quarter of 2017.

NOTE – The original Consent Decree documents included only Project 4.9 (1-66). The following child projects (67-73) were identified and added later and therefore are not considered part of the compliance date for Project 4.9.

4.09 (67) - Abandon existing 8" ACP FM from PS#1132 to MH 11 and install 2,700 lf of 8" DIP FM from PS#1132 along Bikini Blvd to MH 5 at the intersection Bouganville Rd and Flight Line Rd

Current Status: This project is currently in permitting.

4.09 (68) - Abandon existing 3400 lf of 6" and 8" ACP FM from PS#0364 to NW 199 St and install 1271 lf of 8" DIP FM from PS#0364 to NW 203 Terr., then 2154 lf of 12" DIPFM from NW 203 Terr. to NW 199 St

Current Status: This project is currently in construction. Contractor NTP was issued September 19, 2016.

4.09 (69) - Replacement of approx. 2,425 lf of 12" ACP FM with 12" DIPFM from PS# 0333 South to Miami Lakes Dr.

Current Status: This project is currently in construction. Contractor NTP was issued July 18, 2016.

4.09 (70) - Swage lining approx. 8000 lf of 10" ACP FM at US-1 from SW 184 St to North of Caribbean Blvd.

Current Status: This project has been cancelled as it is no longer required to be performed. A memorandum is being prepared to formally close.

4.09 (71) - Replace 8" ACP and 8" CI FM with 8" DIPFM from PS#0445 along NW 17 Ave to NW 207 St, then 12" DIPFM along NW 207 St with aerial canal crossing to exist 16" DIPFM, then replace 4" ACP FM with 6" DIPFM from PS#0444 to NW 207 St

Current Status: This project received final permit approval at the end of July 2016 and will go to procurement in November 2016.

4.09 (72) - Replace 5,200 lf of 16", 1,375 lf of 12", 1,390 lf of 8" ACP FMs and 187 lf of 8" PVC FM from SW 104 St to SW 108 St, from PS#0875 to SW 127 Ave and from PS#0866 to SW 127 Ave with 6,575 lf of 16" DIP, 1,577 lf of 8" from PS#0875 then east to 127th Ave and North to 88th St

Current Status: This project has been incorporated into the design-build criteria package for Project PCTS#12837 - Installation of 36/48-Inch WM along SW 117th Ave to 127 Ave - Area N, which is located in the same vicinity (This is not a Consent Decree Project). Since this scope will not be managed by the CD Team is not a part of the original CD project scope, this work is being removed from the Consent Decree Program and will be tracked as part of the overall CIP.

4.09 (73) - Replace 4,156 lf of 10" ACP FM from PS#0728 running south along SW 92 Ave to near SW 152 St and 3,955 of 10" ACP from south of SW 152 St to PS#0735 and 1,020 lf of 8" CIFM along SW 150 St SW 90 Ave with 4,156 lf of 12" DIP from PS#0728 to near SW 152 St and 1,020 lf of 8" DIP along SW 150 St to SW 90 Ave and 3,955 lf of 12" DIP FM from south of SW 152 St to near PS#0735 along SW 95 Ave.

Current Status: This project is currently in procurement.

4.10 Opa-Locka Airport 48" PCCP Force Main Replacement

This project involves the rehabilitation of 2.5 miles of 48" PCCP force main running along the Biscayne Canal between NW 57th Avenue & NW 32nd Avenue. The length has been determined to have approximately one quarter of its line segments distressed based on in-situ condition assessments.

Current Status: This project has been split into four (4) child/sub projects.

4.10 (1) Includes rehab of an existing 48" FM east of the Opa-Locka Airport. This project is in procurement.

4.10 (2) Includes two (2) miles of open cut 54" DIP FM pipe along airport property and is currently in the construction. Contractor NTP was issued October 12, 2016.

4.10 (3) Includes 1,550 LF of 16" DIP FM along NW 159th Street between NW 57th Ave and NW 54th Ave and is currently in design.

4.10 (4) Includes the Opa-Locka Airport Concessions Project and is currently in Pre-Design.

Sewer Pump Station System

5.01 Upgrade Pump Station No. 0418

The station has reached the end of its useful life and a booster station is needed to relieve pressures in the Doral area. The purpose of this project is to convert PS 0418 into a booster type station.

Current Status: NTP was issued on May 28, 2016 and construction is ongoing.

5.02 Upgrade Pump Station No. 0691

The existing equipment of the pump station (PS) is beyond its useful life and capacity increase is required to handle increased Homestead flows. This project involves the replacement of pumping and electrical equipment in PS 0691.

Current Status: A request for modification was sent to the EPA to modify the scope of work to include completion of Homestead Pump Station #1 and Decommissioning of Pumps Station 0691 in lieu of upgrading PS#0691. Approval was granted on 4/19/16 contingent on the actual work being completed. Currently construction of Homestead Pump Station #1 is ongoing.

5.03 Upgrade Pump Station No. 0692

The existing equipment of the pump station is beyond its useful life and capacity increase is required to handle increased Homestead flows. This project involves the replacement of pumping and electrical equipment in PS 0692.

Current Status: This project is currently in 100% the design phase.

5.04 Replacement of Switchgear at Pump Station No. 0414

The existing pump station equipment has reached the end of its useful life and a booster station is needed to relieve the pressures and reroute flow away from PS 1310 and PS 0300. The purpose of this project is to convert PS 0414 into a booster type station and rehabilitate and replace the entire facility equipment (pumps, motors, electrical equipment, HVAC, valves, and piping).

Current Status: This project is currently in permitting. Delays to the permitting process have put completion of this project by the compliance date at risk.

5.05 Replacement of Switchgear and Rehabilitation of Wetwell at Pump Station No. 0415

The existing pump station equipment has reached the end of its useful life and the wet well structure is badly deteriorated due to H₂S. This project involves the rehabilitation and replacement of the entire facility equipment (pumps, motors, electrical equipment, HVAC, odor control, valves, piping and wet well) in PS 0415.

Current Status: This project is currently in permitting.

5.06 Replacement of Switchgear at Pump Station No. 0416

The existing pump station equipment has reached the end of its useful life. This project involves the rehabilitation and replacement of the entire facility equipment (pumps, motors, electrical equipment, HVAC, valves and piping) in PS No. 0416.

Current Status: This project is currently in permitting. Delays to the permitting process have put completion of this project by the compliance date at risk.

5.07 Replacement of Switchgear and Rehabilitation of Wetwell at Pump Station No. 0417

The existing pump station equipment has reached the end of its useful life and the wet well structure is badly deteriorated due to H₂S. This project involves the rehabilitation and replacement of the entire facility equipment (pumps, motors, electrical equipment, HVAC, odor control, valves, piping and wet well) in PS 0417.

Current Status: This project is currently in permitting.

5.08 Replacement of Electrical and Mechanical Equipment in Pump Station No. 0107

The existing equipment of the pump station is beyond its useful life and parts are not readily available for the load cell type controllers. This project involves the replacement of pumping and electrical equipment of PS No. 0107.

Current Status: This project is currently in construction. Contractor NTP was issued on October 20, 2016.

5.09 Replacement of Pumping and Electrical Equipment at Pump Station #0301

The existing pump station equipment has reached the end of its useful life and a new pump station is needed to address future capacity needs, sea level rise and storm surge. Phase 1 of the project involves the replacement of the pumps, electrical equipment and generators, in addition to rehabilitation of the HVAC equipment of PS 0301. Phase 2 will include the construction of a new submersible pump station.

Current Status: The design for this pump station is split into two phases of work. Phase 1 is for the rehab of the existing pump station and is part of the Consent Decree work. Phase 2 is for a replacement pump station, is not part of the Consent Decree work and will be performed subsequent to Phase 1.

This project is currently in permitting. Delays to the permitting process have put completion of this project by the compliance date at risk.

5.10 Upgrade Pump Station #0488

The existing equipment is beyond its useful life. This project involves the conversion of the pump station to a submersible type station.

Current Status: This project is currently in construction.

5.11 Installation of 60" Force Main from Kendall Drive to Pump Station #0536

Currently, there is a pressure differential and increase flow transfer between PS #0559 and PS #0536. The purpose of this project was originally to install a 60" FM from Kendall Dr. to PS #0536 to eliminate the 42" reduction in the 60" FM. System reviews and analysis has determined that the installation of a 48-inch cross connection between the existing 72-inch effluent FM to an existing 48-inch force main will accomplish the desired reduction in pressure differential.

Current Status: This project is currently in permitting.

5.12 Replacement of Switchgear at Pump Station #0187

The existing PS equipment is beyond its useful life and parts are not readily available. This project involves the demolition of the four (4) existing 450 hp pumps (3 two-speed, and 1 with Anvic Drive) and the installation of four (4) new 450 hp pumps and motors, with new VFDs, replacement of electrical switchgear, HVAC and lighting

upgrades, expansion of Electrical Room, generator upgrades, and replacement of plug valves and control valves.

Current Status: This project is currently in contractor procurement. The pre-purchase equipment package is also currently in procurement.

5.13 Refurbish Emergency Generators and Controls at Regional Pump Stations

The emergency backup generators are unreliable due to the age of the controllers and the condition of the wiring on the engines. The purpose of this project is to refurbish emergency generators and controls at regional pump stations.

Current Status: COMPLETE – This project was substantially completed in February 2016.

5.14 Upgrade Pumps Stations #0086, #0492

The project was designed to increase reliability and extend the service life of the pump station. The pump stations exceed the Adequate Transmission Capacity Criteria with a NAPOT of greater than 10 hours. PS #0086 was converted to a submersible type pump station with an existing wet well and the electrical controls and instrumentation were upgraded. The electrical controls and instrumentation for PS #0492 were upgraded. It was also rehabilitated to a new submersible type pump station.

Current Status: COMPLETE - This project was substantially completed in July 2013.

5.15 Upgrade Pumps Stations #0065, #0201, #0334, #0374, #0607

These pump stations exceed the Adequate Transmission Capacity Criteria with a NAPOT of greater than 10 hours. The PS # 0065 is being upgraded to include new submersible pumps in the existing dry well, installation of larger suction and discharge piping, and an electrical upgrade. The PS #0201 is being upgraded to include new submersible pumps, installation of a new valve box, an electrical upgrade and 48 I/I repairs for a flow of 176 gpm. The PS #0334 project involves the conversion to a new submersible type pump station, an electrical upgrade and the installation of 2,200 L.F. of new 8 inch FM. The PS #0374 is being upgraded to include new submersible pumps, installation of a new valve box, an electrical upgrade and the installation of 320 L.F. of new 8 inch FM. The PS #0607 project involves the conversion to a new submersible type pump station and an electrical upgrade.

Current Status: COMPLETE – This project was substantially completed on December 30, 2015. The individual child project completion dates were as follows:

- PS#0065 – Completed December 22, 2015
- FM for PS#0065 (Phase 1) – Completed in October 2015
- PS#0201 – Completed in September 2015
- PS#0334 – Completed December 30, 2015
- FM for PS#0334 – Completed in April 2015
- PS#0374 – Completed in 2014 by in-house forces
- FM for PS#0374 – Completed in 2014 by in-house forces
- PS#0607 – Completed in October 2015

5.16 Upgrade Pump Stations #0198, #0437, #0466, #0680

These pump stations exceed the Adequate Transmission Capacity Criteria with a NAPOT of greater than 10 hours. The PS #0198 is being upgraded to include new submersible pumps in a new triplex wet well, an electrical upgrade and flow isolation. PS #0437 is being upgraded to include new dry pit submersible pumps, replacement of roughly 100 linear feet of 10" forcemain to the street connection, and electrical upgrades. PS#0466 is being upgraded to include refurbishment of the existing wet well and repairs to pipes and valves. PS #0680 is being upgraded to include new submersible pumps, new valve box, electrical upgrades and a new generator with sub-base tank.

Current Status: This project has been divided into four (4) child projects. With the following current statuses:

- PS#0198 – Contractor NTP was issued April 18, 2016 and construction is ongoing.
- PS#0437 – Contractor NTP was issued May 2, 2016 and construction is ongoing.
- PS#0466 – Completed in October 2016.
- PS#0680 — Contractor NTP was issued on April 18, 2016 and construction is ongoing.

5.17 Upgrade Pump Stations #0037, #0351, #0370, #0403

These pump stations exceed the Adequate Transmission Capacity Criteria with a NAPOT of greater than 10 hours. The PS #0037 project involves the relocation of PS site, new submersible PS, 1,000 LF of new gravity main and 430 LF of 6" force main. The PS #0351 is being upgraded to include new submersible pumps, installation of a new valve box, an electrical upgrade, the replacement of 360 L.F. of 4", and 2,700 LF extension of existing 8" FM to discharge into existing 36" gravity system. The PS #0370 project involves the conversion to a new submersible type pump station, an electrical upgrade and the installation of

830 LF of new 8" FM. The PS #0403 project involves the conversion to a new submersible type pump station, an electrical upgrade and the installation of an on-site generator.

Current Status: This project is split into four (4) different sub/child projects (one per pump station).

- PS#0037 – Currently in permitting.
- PS#0351 – Currently in permitting.
- PS#0370 – Currently in permitting.
- PS#0403 – Currently in permitting.

5.18 Pump Stations #0441, #0491, #0710, #0827, #0852, #1236

These pump stations exceed the Adequate Transmission Capacity Criteria with a NAPOT of greater than 10 hours. The PS #0441 project involves the conversion to a new submersible type pump station and an electrical upgrade. PS #0491 is undergoing flow isolation and I/I repairs if necessary. The PS #710 project involves the conversion to a new submersible type pump station, an electrical upgrade and the installation of 1,800 LF of new 8" FM. The PS # 0827 is being upgraded to include larger submersible pumps, installation of a new valve vault, an electrical upgrade and the replacement of 1,600 LF of 4" FM with 8" FM. The PS #0852 project involves the conversion to a new submersible type pump station and an electrical upgrade. PS #1236 is undergoing 300 I/I repairs to achieve a flow of 130 gpm.

Current Status: Work is scheduled to start in late 2016.

5.19 SCADA RTU Upgrades

The current radio communication system is obsolete and it is difficult to procure parts. The purpose of the project is to upgrade the SCADA remote telemetry units for 635 pump stations to maintain operational sustainability.

Current Status: COMPLETE – Project was substantially completed in November 2015.

Supplemental Environmental Project (SEP)

6.0 SEP

Includes the installation of approximately 7,660 linear feet of gravity sanitary sewers within a corridor designated as the “Miami-Dade Green Technology Corridor”, which will facilitate the connection to the sewer system of approximately seventy-four (74) business entities currently using septic tanks.

Current Status: This project is currently in 100% design.

Project 6.1: The project was issued as an early phase of the overall SEP, and involves furnishing and installing approximately 600 LF of new gravity sanitary sewer.

Current Status: COMPLETE – Project was substantially completed on August 16, 2015.