



## Department of Watershed Management

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VIA EMAIL AND U.S. MAIL

January 30, 2015

Chief, Clean Water Protection Branch  
ATTN: Ms. Sara Schiff Janovitz  
Water Protection Division  
United States Environmental Protection Agency,  
Region 4  
61 Forsyth Street  
Atlanta, Georgia 30303-8960

Re: Clean Water act Consent Decree 1:10cv 4039-WSD  
January 30, 2015 Semi-Annual Report 6 Submittal

Dear Ms. Janovitz:

As required by §IX. Reporting Requirements of the Consent Decree associated with the above referenced civil action, we are submitting the following document for your review and comment:

- January 30, 2015 Semi-Annual Report #6

I certify under penalty of law that these documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations pursuant to CWA Section 309(c)(4).

If you have questions or comments, please contact me at 770-621-7204.

Sincerely,

Dr. James M. Chansler, Director  
Department of Watershed Management

Ms. Sara Schiff Janovitz  
January 30, 2015  
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Attachments

Cc: Georgia EPD w/attachments  
Morris Williams w/attachments  
Charles Lambert w/attachments  
Rudy Chen w/attachments  
Matt Welch w/attachments  
O. V. Brantley, County Attorney  
E. Fitzgerald Veira, Troutman Sanders

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# Semi-Annual Report #6

July 1, 2014 to December 31, 2014

Civil Action No. 1:10cv4039 - WSD

## DeKalb County Department of Watershed Management



JANUARY 30, 2015

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## Acronyms

AWWTF	Advanced Wastewater Treatment Facility
ARV	Air/Vacuum Release Valve
BMP	Best Management Practice
CCTV	Closed Circuit Television
CDPMT	Consent Decree Program Management Team
CEO	Chief Executive Officer
CERP	Contingency and Emergency Response Plan
CIP	Capital Improvement Program
CMMS	Computerized Maintenance Management System
CMOM	Capacity, Management, Operations, and Maintenance
County	DeKalb County
DCTV	DeKalb County Television
DWM	DeKalb County, Department of Watershed Management
FOG	Fats, Oil, and Grease
FSE	Food Service Establishments
GAEPD	Georgia Environmental Protection Division
GIS	Geographic Information System
GPS	Global Positioning System
ITB	Invitation to Bid
KPI	Key Performance Indicator
LF	Linear Feet
MMS	Maintenance Management System
NTP	Notice to Proceed
O&M	Operation and Maintenance
ONE DeKalb	Office of Neighborhood Empowerment DeKalb County
OSARP	Ongoing Sewer Assessment and Rehabilitation Program
PASARP	Priority Areas Sewer Assessment and Rehabilitation Program

## Acronyms Continued

PTT	Push-to-Talk
QA/QC	Quality Assurance and Quality Control
RD I/I	Rainfall derived infiltration and inflow
SEP	Supplemental Environmental Project
SSO	Sanitary Sewer Overflow
SSOAP	USEPA Sanitary Sewer Overflow Analysis and Planning Tool
USEPA	U.S. Environmental Protection Agency
WAM	Work and Asset Management
WCTS	Wastewater Collection and Transmission System

## Introduction

The Department of Watershed Management (DWM) submits this sixth Semi-Annual Report in accordance with Section IX, Paragraph 57 of the Consent Decree (Civil Action 1:10cv4039-WSD) to provide:

- a) "A summary description of projects and significant activities completed and deadlines achieved during the previous applicable six (6) month period pursuant to the requirements of this Consent Decree, in Gantt chart or similar format, including a summary of any missed deadline required by this Consent Decree and, if applicable, the reasons for missing such deadline."
- b) "A summary of projects and significant activities anticipated to be performed, and deadlines anticipated to be achieved, in the successive applicable six (6) month period to comply with the requirements of this Consent Decree, in Gantt chart or similar format. The Parties agree that schedules, dates or deadlines reported pursuant to this subparagraph 57.(b) are not intended to be and shall not become enforceable under this Consent Decree, unless any such schedule, date or deadline is otherwise specifically enforceable pursuant to this Consent Decree."

## Executive Summary

This is the first Semi-Annual Report that includes full engagement of the Consent Decree Program Management Team (CDPMT). In overview, DWM developed, documented, and submitted the following Consent Decree deliverables for review, comment, and approval to the U.S. Environmental Protection Agency (USEPA)/Georgia Environmental Protection Division (GAEPD) during the second half of 2014 as follows.

07/30/2014	10 <sup>th</sup> Quarterly Report
07/30/2014	5 <sup>th</sup> Semi-Annual Report
12/31/2014	InfoMaster™ program updates include: 1) Sanitary Sewer Overflow, Contingency and Emergency Response Plan, and 2) Sewer Mapping
12/30/2014	Supplemental Environmental Project (SEP) Completion Report

Within the period from January 1, 2015 to June 30, 2015, the County will submit to USEPA/GAEPD the following:

01/15/2015	11 <sup>th</sup> Quarterly Report
01/30/2015	This 6 <sup>th</sup> Semi-Annual Report
02/28/2015	3 <sup>rd</sup> Annual Report
2015	Program updates that will be submitted in 2015 include: 1) System-wide Hydraulic Model, 2) System-wide Flow and Rainfall Monitoring Program, 3) Infrastructure Acquisitions, 4) Financial Analysis Program, 5) Priority Areas Sewer Assessment and Rehabilitation Program, 6) Ongoing Sewer Assessment and Rehabilitation Program, and 7) Maintenance Management System Program.
04/30/2015	12 <sup>th</sup> Quarterly Report

*Exceptions explanations for missed or revised deadlines are included where appropriate.*

## Capacity, Management, Operations and Maintenance (CMOM) Programs Update

### 1. Contingency and Emergency Response Plan (CERP) (CD VI.B.i)

#### a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014

- i) Responded to and investigated 136 spills, 35 building backups, and 64 Sanitary Sewer Overflows (SSOs) (surface spills).
- ii) Average response time from call to stopping spill was 1.54 hours for this reporting period.
- iii) Continued and added engineering studies and system improvement projects as a result of investigations. Projects may be identified as part of Priority Areas Sewer Assessment and Rehabilitation Program (PASARP) or Ongoing Sewer Assessment and Rehabilitation Program (OSARP) [and/or Capital Improvement Project (CIP)] as a result of studies and system improvement projects.
- iv) Updated and Reviewed CERP with the following changes:
  - (1) Confirmed that programs are up-to-date with current practices and activities (conducted by the DWM Assistant Director of Operations along with relevant DWM personnel and CDPMT)
  - (2) Updated Appendix B: Updated the Notification Contact List
  - (3) Updated Appendix D: Spill Report Instructions and Form - Edited Building Back-up Report and GAEPD Surface Overflow Report
  - (4) Updated Appendix E: Spill Volume Calculations - Edited the Overflow Calculation Sheet
- v) Conducted annual CERP training for 61 field staff to review current program and updates to the document.

#### b) Projects and Activities Anticipated for the Reporting Period 1/1/2015 – 6/30/2015

- i) Properly respond to and investigate spills, building backups, and overflows.
- ii) Continue to review data and integrate the CDPMT into the process.
- iii) Develop targeted cleaning program to reduce SSOs.
- iv) Conduct next round of CERP training for field staff.
- v) Review CERP in preparation for training
- vi) Update and edit CERP based on response reviews for improvement.

### 2. Fats, Oils, and Grease (FOG) Management Program (CD VI.B.ii)

#### a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014

- i) Reviewed 3,190 pump-out manifests as part of the Hauler Company Assessment program.
- ii) Continued improving the FOG permitting process to include all new and unpermitted Food Service Establishments (FSEs) from City incorporated establishments.
- iii) Delivered 524 Warning Notices and 5 Court Summons to non-compliant FSE customers.



- iv) The County achieved and exceeded the established performance measures:
  - (1) Total number of FOG inspections = 3,291
  - (2) Total number of FOG evaluations = 663
  - (3) Average inspections per day = 5.1
  - (4) Average permitted active FSEs = 2,444
- v) Mailed 914 Best Management Practices (BMPs) brochures to FSEs with renewed FOG permits under the public education program.
- vi) Continued to engage with other organizations that have similar water quality messages as part of the public education program (e.g. Metropolitan North Georgia Water Planning District).
- vii) Continued the FOG permit renewal payment incorporation into water billing.
- viii) Communicating with County customers on a consistent basis in the following ways:
  - 1) Education materials distributed at multi-family apartment complexes and residential neighborhoods that have been identified to be located near sewer spills.
  - 2) Community and School events participation
  - 3) Homeowners Association and other group meetings
  - 4) Utilizing the Office of Neighborhood Empowerment (ONE DeKalb) office
  - 5) DCTV (DeKalb County Television - Comcast Channel 23)
  - 6) Bill inserts distributed with FOG information
  - 7) FOG advertisements were placed in four local newspapers from October thru December: The *Champion*, *CrossRoads News*, *On Common Ground*, and *Mundo Hispanico*.
- ix) Coordinated meeting between the Atlanta Apartment Owners Association and a representative of Premier Grease to discuss FOG recycling and collection from apartment complexes using a public/private partnership.
- x) Implemented statistically relevant surveys to gauge the effectiveness of messaging and public participation. DWM implemented two ongoing internet surveys using the "Survey Monkey" website. One survey is in English and the other is in Spanish. The survey will allow DWM to determine the reception and effectiveness of the educational efforts and the amount of customers currently receiving information and practicing BMPs. This survey is open permanently online. Results will show cumulative data that will be analyzed semi-annually. The results shown below are those gathered during the time of survey commencement through the month of December 2014 from a group of 64 respondents.
 

Initial survey results based on 64 respondents through end of December 2014:

  - 98% of respondents that took the survey recognized the term FOG and its acronym definition.
  - More than 98% of respondents understand the BMPs related to disposal of cooking oil and 86% of respondents are currently performing this BMP.
  - 96% of respondents were aware of sewer spills induced by FOG.

- 67% of respondents said they adopted BMPs to dispose of their cooking oil after learning about FOG.
- xi) Generated a FOG educational brochure for residential and commercial establishments to minimize FOG discharges, highlighting the best management practices for garbage disposal and toilets.
- xii) The DeKalb County FOG Program won the “Outstanding FOG Program of the Year 2014” award by the FOG Alliance of Georgia.

**b) Projects and Activities Anticipated for the Reporting Period 1/1/2015 – 6/30/2015**

- i) Continue communicating with all 700,000 County residents and customers on a consistent basis as part of the public education program.
- ii) Continue internet statistical surveys to gauge the effectiveness of public messaging and its impacts on public participation as related to FOG education.
- iii) Continue improving the FOG permitting process by coordinating meetings with the larger incorporated city authorities. DWM will meet with development Directors from City of Decatur, City of Dunwoody and others as possible. The purpose of these meetings is to update the incorporated cities about the FOG permit requirements and enhance cooperation on FOG ordinance compliance. As an example, DWM will request cities to hold a City Building permit until a routed sheet with FOG approval from the FOG Manager or associated staff is submitted by the customer
- iv) Continue the FOG permit renewal payment incorporation into water billing.

**3. Sewer Mapping Program (CD VI.B.iii)**

**a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014**

- i) Substantially completed the survey collection of remaining sewersheds in Sewer Mapping contract for location of gravity mains and manholes. Locations of lift stations, treatment facilities, force mains, and air release valves (ARVs) have been verified and / or revised in the Geographic Information System (GIS). Additional data from sewersheds previously mapped (or surveyed) is expected to be delivered February 2015. These sewersheds experienced recent growth and additional sanitary sewers were installed since original surveying and needed revisiting.
- ii) Substantially completed the attribution for gravity mains, manholes, lift stations, and force mains against the designated Consent Decree data fields - size, material, estimated age or age range, slope, invert elevation, and rim elevation. Date and type of rehabilitation have been compiled from various sources and included as both a rehabilitation feature class (also known as shapefile) and the date brought over to the gravity main feature class.
- iii) Quality Analysis has been performed on the survey-collected data; any gaps identified, such as missing connectivity or attribution, have been flagged and are being addressed. Any duplicate or blank IDs have been addressed to prime the sewer network data for use with InfoMaster™ and InfoWorks®, modeling software that uses GIS, which require a unique ID for each asset.
- iv) DWM has completed implementation of the web-based mobile mapping solution. DWM has an online map accessible to field crews and managers, detailing the sewer network along

with streets, addresses, and water bodies. In addition to the online map, there is an internal map for use by dispatch and other administration, displaying current and historical computerized maintenance management system (CMMS) service requests against the GIS, such as service interruptions and stoppages.

- v) Following the previous report, DWM replaced InfoNet™ with InfoMaster™ as a more robust product to track asset risks in conjunction with the GIS. InfoMaster™ has been installed on DWM computers, and a process has been decided on for maintaining the connection between the GIS and InfoMaster™ database.
- vi) Exceptions Explanation - the Sewer Mapping milestones bulleted below were not met as originally proposed in the Sewer Mapping Program submitted December 2012. Some of these missed milestones were previously reported to USEPA with a new completion date of 2014, now extended to 2015. A plan forward is in the updated Sewer Mapping Program document submitted in late 2014:
  - The County will complete the standardization process of assigning unique asset ID's in GIS. Second, the County's Information Systems Department will facilitate the integration between GIS and CMMS.
  - Complete the assignment of asset ID's for manholes at completion of inventory and mapping program as part of the integration of the CMMS and GIS systems.
  - Complete manhole asset ID import into CMMS as part of the integration of CMMS and GIS systems.
  - Import asset ID for force mains and air valves as part of the integration of the CMMS and GIS systems.
  - Integrate CMMS and GIS systems.

As a general explanation for the missed milestones, the County attempted multiple times to procure technical resources to conduct these activities as they exceeded capacity of internal staff. These tasks will be completed in 2015.

- vii) Exceptions Explanation - The following activity was proposed in the December 2012 Sewer Mapping Report:

- Add location of lift station alarms to GIS

This activity is not needed and has no program value. The County has a functioning Supervisory Control and Data Acquisition (SCADA) system with sufficient locational data regarding alarm locations.

**b) Projects and Activities Anticipated for the Reporting period 1/1/2015 – 6/30/2015**

- i) Begin competitive procurement for professional services needed to load assets from GIS into Oracle Work and Asset Management (WAM), develop, and deploy a script to keep GIS and Oracle WAM synchronized when changes are made in GIS.
- ii) Continue data updates and regular maintenance of GIS assets and attribution to keep GIS information current.

- iii) Continue regular maintenance of GIS spatial database engine (SDE) databases for connectivity with InfoMaster™, InfoWorks® CS, and Oracle WAM.
- iv) Review future deliverables from contractors and load into central GIS database.

#### 4. Maintenance Management System (MMS) Program (CD VI.B.iv)

##### a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014

- i) Completed a major upgrade to the landline telephone system for DWM dispatchers. The new system provides more situational awareness about the volume and nature of calls to DWM. It also helps reduce the number of dropped or missed calls. This helps increase the likelihood that callers reporting SSOs can successfully connect to DWM operators in a timely manner. This enhancement was completed a year and a half ahead of schedule.
- ii) Continued implementation of a system to track DWM vehicles in real-time via Global Positioning System (GPS) units installed on the trucks.
- iii) Completed barcoding functionality for spare parts management. Barcoding also can be used for equipment and component tracking. Barcoding functionality was successfully tested and confirmed via a Functional Acceptance Test in November 2014. The features required by DWM to efficiently operate their Central Warehouse and Snapfinger Advanced Wastewater Treatment Facility (AWWTF) are in place and functioning. DWM will continue to refine the use of these capabilities as needed. An upgraded wireless network was completed in December 2014 to improve communication of the wireless barcode scanners throughout the warehouses. Similar improvements will be completed for the warehouse at Pole Bridge AWWTF.
- iv) Completed implementation of component tracking for selected components including lift station pump motors, mobile bypass pumps, and ARVs.
- v) Continued renovating the Central Warehouse to increase the amount of space available for parts storage, improve organization of parts, and automate the issuance of personal protective equipment.
- vi) Initiated the process of tasking a contractor to perform inspections of approximately 1,200 creek crossings. These inspections will be used to assess, prioritize, and establish a baseline condition in order to develop a comprehensive Creek Crossing Inspection and Clearing Program.
- vii) Working to inventory easements to set up easement clearing program.
- viii) Completed reconnaissance of all force main easements to locate and assess ARVs. Those ARVs found to be deficient were repaired or replaced. Each ARV was located with GPS and uploaded to GIS. Re-inspections and maintenance activities are scheduled to occur on a three-year rotating cycle. ARVs on large and high-risk force mains will be inspected and cleaned annually.
- ix) Initiated development of a force main capacity testing approach and protocol (using pressure and flow and integrate recommended loggers and meters). The protocol will be used when force main testing begins in 2015.

- x) Began assessment of business intelligence marketplace to begin identifying software that is potentially viable for deployment at DWM.
- xi) MMS activity is ongoing to refine, improve and report KPI's. 2014 annual report will use all KPI's proposed that are feasible at this time.
- xii) Refer to Appendix A Table for status of missed or revised milestones for Lift Station projects.

**b) Projects and Activities Anticipated for the Reporting period 1/1/2015 – 6/30/2015**

- i) Continue and complete evaluation and selection of business intelligence software.
- ii) Begin work to improve the accuracy of addresses used for address-based work.
- iii) Begin the process to procure professional services for implementation of the Oracle WAM work order module for gravity system maintenance work.
- iv) Initiate efforts to improve the efficiency of the re-order process for spare parts. This is an MMS enhancement scheduled to begin in 2015. DWM identified some inefficiency in the current re-order process and they wish to improve this process.
- v) Modify benchmark work orders for lift stations to include generators.
- vi) Review and, if needed, begin revising the procedures for gravity system maintenance. In addition, determine if additional procedures are needed for gravity system maintenance and develop as needed.
- vii) Initiate assessment of the condition of gravity system assets in coordination with the PASARP and the OSARP and use this information to establish maintenance prioritization scores and the overall target for activities and frequencies of preventive maintenance.
- viii) Continue and expand inputting maintenance and repair data into Oracle WAM.
- ix) Evaluate assessment data from creek crossing inspections and develop a comprehensive development and inspection program with a prioritized schedule for creek crossings, which will be implemented in 2015.
- x) Review and, if needed, begin revising the procedures for lift station maintenance. In addition, determine if additional procedures are needed for lift station maintenance and develop as needed.
- xi) Evaluate the status of the implementation of lift station bypass connections.
- xii) Begin development of an electrical grounding test procedure for lift stations.
- xiii) Continue to implement KPI reporting.

**5. Collection and Transmission Systems Training Program (CD VI.B.v)**

**a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014**

- i) Established a phased approach for implementation of a comprehensive CMOM Training Program through analysis of data integrity, leveraging of the existing data in Compliance Suite software, and leveraging reporting software to document current training accomplishments.

- ii) Completed 1,405 hours of training.
- iii) Exceptions Explanation - The following activity is not currently being done:
  - Generate quarterly reports for management and trainers from the Compliance Suite that provides the status of training for each employee, including training refresher due dates.

The County has not yet hired the knowledge retention officer as planned. Ongoing training has been provided as noted. A three phase plan to fully implement the training program has been developed.

**b) Projects and Activities Anticipated for the Reporting Period 1/1/2015 – 6/30/2015**

- i) Implement a comprehensive program through the Phased Approach:
  - (1) Complete Phase I – Evaluate data and data management system to determine if data is robust and if reporting capability fulfills the needs of the Consent Decree and associated Training Program. In addition, determine if Compliance Suite software has additional modules that can be procured to enhance its capability and/or review other software for their capabilities.
  - (2) Initiate Phase 2 – Interviews, Data Collection, and Survey - Once software is determined, the program will be enhanced through interviews, data collection, and surveys. This data will be input into Compliance Suite to enhance the Training Program.
  - (3) Phase 3 - Career Development Plans to be initiated in the future upon completion of the first two phases.
- ii) County working to hire Knowledge Retention Officer and as staffing resources become available, the program will evolve to the next step.

**6. System-Wide Flow and Rainfall Monitoring Program (CD VI.B.vi)**

**a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014**

- i) Completed field verifications and inventory for 106 existing flow meters, 24 rain gauges, and 15 inter-jurisdictional flow meters. Completed Site Investigation Reports, Including location maps, photos, field verified coordinates, pipe size, pipe material, manhole diameter, depth, and plan view, surcharge condition, flow characteristics, site conditions, and site comments.
- ii) Determined the sufficient number and locations of permanent flow meter and rain gauge in each sewer basin to meet the Hydraulic Modeling Program and other programs' needs. Completed field verifications for 94 new flow meters and 17 rain gauges. Substantially completed Site Investigation Reports, Including location maps, photos, pole camera recordings, field verified coordinates, pipe size, pipe material, manhole diameter, depth, and plan view, surcharge condition, flow characteristics, site conditions, and site comments.
- iii) Completed Installation of 94 new flow meters and 17 new rain gauges throughout the County. The newly installed flow meters and rain gauges, in addition to the existing flow monitoring networks provide full coverage for the DeKalb County's wastewater collection and transmission system (WCTS) system.

- iv) Converted portion of the temporary flow meters to permanent meters and equipped with wireless connections, as part of the new flow meter installations.
- v) Relocated seven (7) existing rain gauges to newly identified locations to avoid the impact from trees and other obstacles for accurate rainfall data recording.
- vi) Additional five (5) U.S. Geological Survey (USGS) rain gauge locations were selected and verified by coordinating with USGS. These rain gauges were installed.
- vii) Revised CMOM program procedures for flow meter and rain gauge site inspection, installation, site test and acceptance, maintenance, data analysis and reports.
- viii) Downloaded monthly flow meter and rain gauge data periodically and observed hydrographs and scattergraphs for noticeable anomalies.
- ix) Established flow meter relational schematic diagrams for existing and new flow meters.
- x) New Invitation to Bid (ITB) for Flow Monitoring Program was issued and new Flow Monitoring Contract is in the awarding process.
- xi) Executed Communication Plans for Flow Meters and Rain Gauges - Phase I and II (Flow meter and rain gauge site investigation and installation)
- xii) Exceptions Explanation - Modeling team evaluated Weather Bug data and determined it was not useful for this program.
- xiii) Exceptions Explanation - The following activity has changed in scope but intent is fully addressed in revised program approach and no milestone was missed:
  - Add wireless connection to a portion of temporary flow meters and rain gauges for real time data and QA/QC.

**b) Projects and Activities Anticipated for the Reporting Period 1/1/2015 – 6/30/2015**

- i) Update CMOM document to include a shortened flow monitoring period to capture up to five storm events during the first half of the year to expedite modeling activities. Refer to the CMOM System-Wide Hydraulic Model Program for additional discussion.
- ii) Collect, compile, and QA/QC December flow meter and rain gauge data, initial 30-day site assessment and testing report, site inspection reports, and other required documentations.
- iii) Update the flow meter basin delineation and flow meter relational schematic diagrams based on the latest sewer mapping data and final newly installed flow meter locations. Check flow balance among flow meter basins.
- iv) All flow monitor and rain gauge sites will be completely equipped with wireless connections. Flow monitoring database will be configured and grouped by sewersheds and basins and support the data QA/QC process.
- v) Observe the hydrographs and scattergraphs periodically on flow meter and rain gauge data. Anomalies found will be investigated further to improve the data quality.
- vi) Establish the correlation between rain gauges and flow meters for future rainfall-derived infiltration and inflow (RDII) study and peaking factor determination.

- vii) Working on consolidating data storage and backup solutions for all existing, newly installed, and future flow meter and rain gauge data.
- viii) Install additional flow meters and rain gauges to obtain more accurate data if issues discovered during data QA/QC and analysis process occur. Install new modems for sites that were vandalized, or not communicating with the data server.
- ix) Perform regular flow meter data download and backup on DWM's server.
- x) Execute Communication Plans for Flow Meters and Rain Gauges - Phase III (Monthly Maintenance)

## 7. System-Wide Hydraulic Model (CD VI.B.vii)

### a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014

- i) Historical flow monitoring at current existing flow meters was reviewed and the data collected in recent year was analyzed using USEPA Sanitary Sewer Overflow Analysis and Planning (SSOAP) tool including:
  - (1) Dry weather flow data analysis
  - (2) Flow volume balance check
- ii) The existing models for the Pole Bridge, Shoal Creek, and Cobb Fowler sewersheds were updated to enhance the model accuracy. Major updates include:
  - (1) Improved model network based on the sewer mapping data provided and verified the flow meter locations, refined data interpolation, updated ID naming to be consistent with GIS, and identified questionable areas for additional field survey;
  - (2) Updated dry weather flow loading in the models with the USEPA SSOAP dry weather flow data analysis results from recent year; and
  - (3) Validated the models for dry weather flow and compared the observed versus modeled flows at each flow monitoring sites for the three existing sewersheds.
- iii) Modeling approach for both PASARP and OSARP sewers was enhanced to more quickly perform an initial capacity assessment in 2015 in order to delineate sewer segments with potential capacity limitations and integrate with the separately performed condition assessment structural inspections. The approach included routing a wet weather peaking factor applied to the calibrated dry weather flow. Calibrated wet weather capacity assessment and assurance would be performed after rainfall events are collected and analyzed in 2015.
- iv) Exceptions Explanation - System-Wide Hydraulic Model CMOM document (2012) Section 3 of System-wide Hydraulic Model is being updated to reflect latest modeling approach and schedule. Modeling scope and new milestone metrics will be submitted early in 2015 in the revised Hydraulic Model Program document.
- v) The modeling protocols are being continuously updated based on the findings from the existing model update and validation.



- vi) Data are being collected for model inputs including lift station attributes, historical flow monitoring data, historical flow, and operation records at lift stations and treatment plants, and water billing data etc.
- vii) The DWM existing InfoWorks® CS software being used to model the system was upgraded to v15 from v11.5.

**b) Projects and Activities Anticipated for the Reporting Period 1/1/2015 – 6/30/2015**

- i) Continue data collection required for building the basin-wide models including any minor remaining sewer mapping data, lift stations and treatment plants flow and operation data, flow monitoring data, as well as other data needed for ongoing model development.
- ii) Start building the basin-wide hydraulic models per the availability of Sewer Mapping Data.
- iii) Continuously update and refine the modeling protocols used to build and calibrate the basin-wide hydraulic model.
- iv) Run the wet weather peaking factor through the Snapfinger basin to identify potential capacity limited sewer segments.

**8. Financial Analysis Program (CD VI.B.viii)**

**a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014**

- i) Commenced the separation of drinking water and wastewater operating and maintenance budget and costs. The review and analysis of 32 active operations cost centers for personnel costs is 75% complete and on target. So far, approximately 200 active and vacant positions (29% of 685 employees) have been identified to be transferred into their appropriate cost centers.
- ii) DWM is on track to meet its revenue target and is expected to fall within its expenditure budget. Debt service ratio continues to exceed the Department’s internal target of 1.50 or better (the bond covenant requirement is 1.20).
- iii) The 2015 Operating and Capital budgets were submitted to Finance on October 6<sup>th</sup>, 2014 the required submission date.
- iv) Pending the automated implementation and integration of the systems to track preventive, corrective, and emergency maintenance costs, DWM will continue to use an alternative methodology to approximate these costs. The chart below provides cost estimates through the 3<sup>rd</sup> quarter of 2014 (2014 year end and 4<sup>th</sup> quarter financial data closes January 31, 2015):

Cost Category	Total Q3
Corrective	\$146,821
Preventive	\$164,534
Emergency	\$2,232,831
<b>Total</b>	<b>\$2,544,187</b>

- v) A notice to proceed was issued on November 30<sup>th</sup>, 2014 engaging a consulting firm to conduct a water and sewer rate sufficiency study and update.

vi) Exceptions Explanation- The following task was not completed and is explained in the Sewer Mapping section:

- Complete system inventory contract the results of which will be used to determine separate water and sewer budgets. Work will be completed in 2015.

**b) Projects and Activities Anticipated for the Reporting Period 1/1/2015 – 6/30/2015**

- i) Complete the assignments and transfer of personnel to the appropriate division/ cost center.
- ii) Complete the assignments and transfer of vehicle and other equipment to the appropriate division/ cost centers.
- iii) Develop and test key financial reports showing the separation of maintenance costs between drinking water and wastewater budgets.
- iv) Establish procedures and conduct training to minimize the improper classification of personnel and equipment costs.
- v) Continue to monitor, analyze, and report on the DWM's overall financial performance.
- vi) Continue to collaborate with the team to automate the tracking of maintenance cost as corrective, preventive, and emergency. Until fully implemented, continue to use the alternative methodology to approximate costs for these categories.
- vii) Complete the water and wastewater rate sufficiency study by the end of the 2nd quarter of 2015.

**9. Infrastructure Acquisitions Program (CD VI.B.ix)**

**a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014**

- i) Evaluated and acquired 19,179 feet of pipe under the new Infrastructure Acquisition program.
- ii) No lift stations acquired this period/ (1) one private lift station retrofit review conducted.
- iii) Sketch Plat reviews: 19
- iv) City Land Disturbance Permit Reviews: 41
- v) Unincorporated Land Disturbance Permit Reviews: 77
- vi) Peer Reviews: 14
- vii) City Reviews: 291
- viii) Final Plat Reviews: 21
- ix) Updated Checklist requirements for review
- x) Meet daily with DWM inspectors to avoid/address any field issues, to streamline the process for review/approval/acceptance of new infrastructure.

xi) Exceptions Explanation - The following task is not being done according to the original Infrastructure Acquisition Program submission. A revised Infrastructure Acquisition Program will be submitted in early 2015 that addresses this activity:

- Conduct Capacity Analysis

**b) Projects and Activities Anticipated for the Reporting Period 1/1/2015 – 6/30/2015**

- Continue to review new and ongoing development projects for sewer line connectivity as submitted during the permitting process.
- Continue to review projects converting from septic to sewer.
- Continue to review final plats, as-builts, and sewer easements for acceptance.
- Continue to offer customer service to all applicants/citizens requesting assistance.
- Review lift-station acquisitions, as required.
- Complete and submit revised Infrastructure Acquisition Program in early 2015.

**10. Priority Areas Sewer Assessment and Rehabilitation Program (CD VI.B.x)**

**a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014**

- Verified the spatial boundaries of Priority Areas, which is 95% complete with field verification and quality analysis.
- Continued to implement, track, and verify status of ongoing PASARP assessment and rehabilitation projects:
  - The PASARP and OSARP Project Status Table (in Attachment A) outlines status on the following:
    - Defined assessment projects related to PASARP implementation during the reporting period.
    - Rehabilitation design and contract document preparation projects related to PASARP implementation during the reporting period.
    - Rehabilitation construction projects related to PASARP implementation during the reporting period.
  - The following summarizes approximate completed sewer cleaning and assessments related to PASARP implementation during the reporting period:
    - 207,500 linear feet (LF) of CCTV
    - 110 manhole condition assessments followed by manhole lining rehabilitation
    - 187,000 LF of cleaning sewer main
- Developed and executed Communication Plans for CCTV Inspection and Cleaning Projects.
- Developed notification letter, door hanger, newsletter story, press release, website/social media post, community meeting flyer, contractor protocol, and Right-of-Entry form for projects.

- iv) Continued effort related to collection and assessment of existing SSO rehabilitation, historical SSO event tracking, and GIS data entry required for PASARP.
- v) Performed desktop delineation of Priority Area boundaries.
  - (1) Established hydrologic boundaries to confirm sewershed relationships between Priority Areas and flow monitoring locations.
  - (2) Refined Priority Area boundaries related to inventory connectivity, physical landmarks, hydraulic, and hydrologic conditions.
- vi) Worked with System-wide Flow and Rainfall Monitoring program to optimize location of existing and additional flow monitors to be installed.
- vii) Field delineated the physical boundaries of the Priority Areas.
  - a. Developed protocols and standard operating procedures related to physical Priority Area delineation verification and data collection.
  - b. Determined expedited method for procurement of field verification data collection activities.
  - c. Performed field data collection and verification of desktop delineated boundaries through contracted firm.
  - d. Reviewed data collection from field activities and made GIS Priority Area boundary adjustments.
  - e. Finalized Priority Area boundaries. Total initial Priority Area public sewer length included approximately 29.6 percent of County's system and finalized delineated Priority Area sewer length included approximately 33 percent of system.
- viii) Confirmed and enhanced decision logic for assessment prioritization.
- ix) Prioritized assessment activities within initial and additional Priority Areas.
- x) Assessed status of completed, ongoing, and scheduled PASARP assessment and rehabilitation measures (Appendix L of PASARP CMOM document) within initial and additional Priority Areas.
- xi) Continued field assessments defined for specific Priority Areas while developing tools and procedures for full program implementation as prescribed in the PASARP CMOM document. Specific tasks performed as related to defining, enhancing and/or developing the necessary tools and procedures for PASARP assessment implementation include:
  - a. Developed field assessment data documentation and Priority Area grouping.
  - b. Reviewed and enhanced technical specifications in PASARP CMOM document to improve efficiency and effectiveness of assessment and rehabilitation implementation.
  - c. Continued to develop data work and decision flow charts for assessment program implementation.
  - d. Prepared assessment tool quality control procedures.

- e. Based on field assessment prioritization logic, grouped Priority Areas to allow for efficient and effective implementation. Determined contracting requirements and expected sequencing and resources required.
- xii) Initiated vegetation clearing activities by reviewing status of scheduled and completed easement access/clearing.
- xiii) Continued reviewing and editing master technical specifications for sanitary sewer and assessment and rehabilitation-related project contracts.
- xiv) Established the PASARP contracting strategy for future program implementation and commenced development of associated assessment and rehabilitation contract document sections required for procurement.
- xv) Refer to Appendix A Table for status of missed or revised milestones for projects. Also, revised schedules will be provided in the updated program document.

**b) Projects and Activities Anticipated for the Reporting Period 1/1/2015 – 6/30/2015**

- i) Continue to implement, track, and verify status of ongoing PASARP assessment and rehabilitation projects.

The attached PASARP and OSARP Project Status Table (in Attachment A) outlines status related to planned activity on:

- 1) The ongoing assessment projects related to PASARP implementation during the upcoming reporting period.
- 2) The ongoing rehabilitation design projects related to PASARP implementation during the upcoming reporting period.
- 3) The various rehabilitation construction projects related to PASARP implementation during the upcoming reporting period.

- ii) Continue to develop and finalize contract development and procurement of the following PASARP assessment and rehabilitation contract documents:

- a. PASARP Assessment Contract, Sewer Group 1, 2, and 3
- b. PASARP/OSARP General Area Manhole Assessment Contract-SSO Driven
- c. PASARP/OSARP General Area CCTV Contract-SSO Driven
- d. PASARP/OSARP SSO Driven Cleaning

- iii) Commence planned program driven assessment and rehabilitation activities as contracts are awarded and assignments generated.

- iv) Continue execution of project communications for ongoing projects.

**11. Ongoing Sewer Assessment and Rehabilitation Program (CD VI.B.x)**

**a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014**

- i) Continued to implement, track and verify status of ongoing OSARP assessment and rehabilitation projects:

- a. The PASARP and OSARP Project Status Table (in Attachment A) outlines status on the following:
  - 1) Defined assessment projects related to OSARP implementation during the reporting period.
  - 2) Rehabilitation design and contract document preparation projects related to OSARP implementation during the reporting period.
  - 3) Rehabilitation construction projects related to OSARP implementation during the reporting period.
- b. The following summarizes approximate completed sewer cleaning and assessments related to OSARP implementation during the reporting period:
  - 1) 120,100 LF of CCTV
  - 2) 131 manhole condition assessments followed by manhole lining rehabilitation
  - 3) 99,000 LF of cleaning sewer main
- ii) Continued effort to define data work and decision flow for assessment inspection data expected to be received. Coordinated with MMS program the data storage and access requirements.
  - a. Began work on assessment tool quality control procedures.
- iii) Continued reviewing and editing master technical specifications for sanitary sewer and assessment and rehabilitation-related project contracts.
- iv) Established the OSARP implementation and contracting strategy. Commenced development of annual assessment and rehabilitation contract document sections.

**b) Projects and Activities Anticipated for the Reporting Period 1/1/2015 – 6/30/2015**

- i) Continue to implement, track and verify status of ongoing OSARP assessment and rehabilitation projects:
  - a. The PASARP and OSARP Project Status Table (in Attachment A) outlines status related to planned activity on:
    - 1) The ongoing assessment projects related to OSARP implementation during the upcoming reporting period.
    - 2) The ongoing rehabilitation design projects related to OSARP implementation during the upcoming reporting period.
    - 3) The rehabilitation construction projects related to OSARP implementation during the upcoming reporting period.
- ii) Initiate contract development and procurement of the following OSARP assessment and rehabilitation contract documents.
  - a. PASARP/OSARP General Area Manhole Assessment Contract historic SSO location driven
  - b. PASARP/OSARP General Area CCTV Contract-historic SSO location driven
  - c. PASARP/OSARP historic SSO location driven cleaning

- iii) Commence SSO driven assessment and rehabilitation activities as contracts are awarded and assignments generated.

## Supplemental Environmental Project (CD VIII.) Update

### a) Projects and Activities Accomplished for the Reporting Period 7/1/2014 – 12/31/2014

- i) The contractor successfully completed cleanup operations at South River, the final stream on the cleanup schedule, on 9/05/14. A project finale was held on 9/18/14 at one of the South River sites, hosted by the County Chief Executive Officer (CEO).
- ii) DWM finalized the Supplemental Environmental Project (SEP) Completion Report and submitted to USEPA/GAEPD on December 30, 2014.

### b) Projects and Activities Anticipated for the Reporting Period 1/1/2015 – 6/30/2015

- i) Respond to any comments on the SEP Completion Report from USEPA/GAEPD.
- ii) Continue Community Outreach efforts by periodically broadcasting SEP public service announcements.

**Attachment A**  
**PASARP/OSARP/MMS Project Status Table**  
**and Sample PASARP/OSARP Gantt Chart**

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**PASARP/OSARP/MMS Project Status Table**

<b>Item No.</b>	<b>CMOM Program Document</b>	<b>Description</b>	<b>Priority Area(s)</b>	<b>Status</b>	<b>Notes</b>
1	PASARP/OSARP	SSES Northfork Peachtree Creek Basin	A-IG5, I-IG6, I-IG10, I-IG11, I-IG14	Assessment	Ongoing CCTV for Northfork Peachtree Creek Basin.
2	PASARP	Lower Crooked Creek Lift Station Improvements	A-PB4	Complete	Completed construction with Lower Crooked Creek project (pump station and pipeline improvements)
3	PASARP/OSARP	Manhole Rehabilitation Services (Lining)	A-IG3, I-IG17, A-PB1, A-PB2, A-PB6, A-SF2, A-SF7, A-SF10	Construction	Manhole rehabilitation currently ongoing
4	PASARP/OSARP	South Fork Peachtree Creek Sanitary Sewer Replacement	I-IG17, A-IG6, A-IG7	Design	
5	PASARP	BAR 5 Ranking Area CCTV	A-SF2	Assessment	
6	PASARP	TNANCY 5 Ranking Area CCTV	A-IG4	Assessment	
7	PASARP	Johnson Ferry CCTV & Cleaning	A-IG3	Complete	
8	PASARP	Frazier Road CCTV & Cleaning	I-IG13	Complete	
9	PASARP/MMS	Columbia Drive Lift Station Rehabilitation	I-SF2	Design	Awaiting advertisement. All design /easement acquisition complete. Milestone in compliance with Addendum to Annual Report No. 2.
10	PASARP/MMS	Fairington Lift Station Rehabilitation	A-PB6	Construction	Design complete. Easement acquisition process ongoing. To be eliminated through installation of a connection to gravity sanitary sewer. Milestone in compliance with Addendum to Annual Report No. 2.

### PASARP/OSARP/MMS Project Status Table

Item No.	CMOM Program Document	Description	Priority Area(s)	Status	Notes
11	PASARP	I-85/Oakcliff Road Sanitary Sewer Improvements	I-IG5	Design	Design complete. Easement acquisition process ongoing.
12	PASARP	Kensington Road Sewer Relocation	A-SF3	Design	Currently in design phase.
13	PASARP	Scottdale Mill Sanitary Sewer Upgrade	I-IG19	Design	
14	PASARP/MMS	Lithonia 2 Lift Stations (Lithonia I and II) (associated w/ Stonecrest Sanitary Sewer/Lift Station)	A-PB4	Future	Demolish existing Lithonia I & II lift stations. The construction duration is expected to be two years. Milestone in compliance with Addendum to Annual Report No. 2.
15	PASARP/MMS	Johnson Creek Lift Station	A-PB3	Future	
16	PASARP	Stonecrest Sanitary Sewer and Force Main Replacement (associated with Lithonia 2)	A-PB4	Construction	
17	OSARP	Buford Highway CCTV & Cleaning		Complete	
18	OSARP	Holly Lane CCTV & Cleaning		Complete	
19	OSARP	TAZTEC 3 Ranking Area CCTV		Complete	
20	OSARP	BAR 6 Ranking Area CCTV		Complete	
21	OSARP	Superior Avenue Phase 2		Construction	Milestone missed - Bid opening held in 2014; awaiting contract award.

**PASARP/OSARP/MMS Project Status Table**

<b>Item No.</b>	<b>CMOM Program Document</b>	<b>Description</b>	<b>Priority Area(s)</b>	<b>Status</b>	<b>Notes</b>
22	OSARP/MMS	Scarborough Lift Station – rehabilitation and update.		Design complete	Milestone missed - Construction management services contract approved in 2014. In purchasing and contracting awaiting advertising.
23	OSARP/MMS	Pepperwood Lift Station		Construction	Milestone missed - Currently under construction.
24	OSARP/MMS	Hammer Mill 1 Lift Station		Design and construction	Milestone missed - Under design and construction to be initiated once easements in place.
25	OSARP/MMS	Hammer Mill 3 Lift Station		Design	Milestone missed - Under re-design and to be re-bid. . In purchasing and contracting awaiting advertising.
26	OSARP/MMS	Royal Atlanta 1 Lift Station – rehabilitate and upgrade.		Construction	Milestone missed - Awaiting Notice to Proceed for new contract to complete the work remaining.
27	OSARP/MMS	Camp Creek Lift Station Rehabilitation		Design	Milestone missed - Design complete and construction to commence once easement and stream buffer issues resolved.
28	OSARP/MMS	Mountain Industrial Lift Station and Force Main		Construction	Milestone partially missed – Station rehabilitated in 2012. Force main portion status: Notice of Award and Notice to Proceed issued. Pre-construction meeting scheduled.

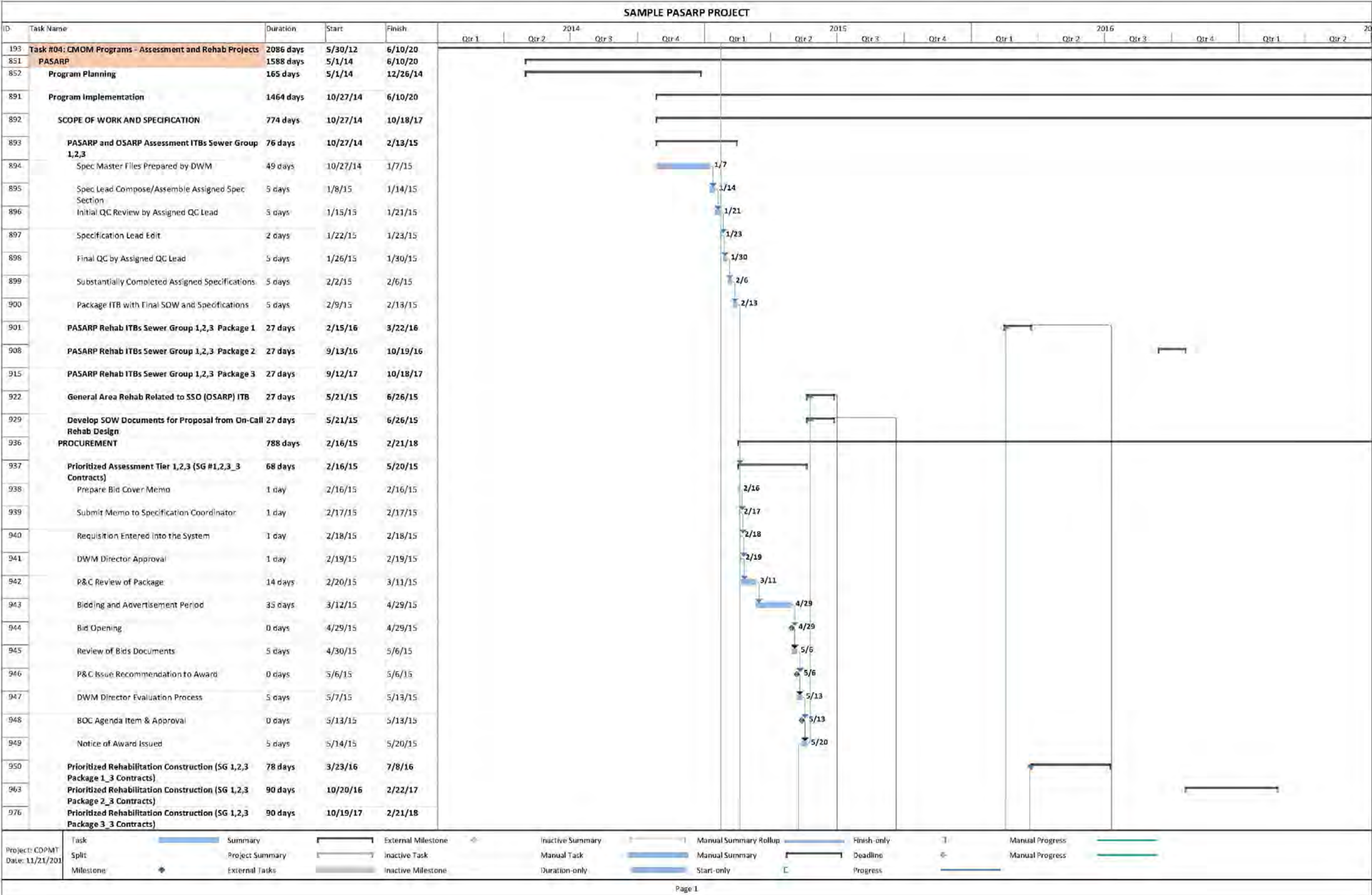
**PASARP/OSARP/MMS Project Status Table**

<b>Item No.</b>	<b>CMOM Program Document</b>	<b>Description</b>	<b>Priority Area(s)</b>	<b>Status</b>	<b>Notes</b>
29	OSARP/MMS	Perimeter Park Lift Station		Construction	Milestone missed - Awaiting Notice to Proceed to complete construction work.
30	OSARP/MMS	Lewis Way Lift Station		Design	
31	OSARP/MMS	Stone Mill 1 Lift Station Rehab		Design	
32	OSARP/MMS	Stone Mill 2 Lift Station Rehab		Design	
33	OSARP/MMS	Penny Brook Lift Station Rehab		Design	
34	OSARP/MMS	Fourth St Lift Station Rehabilitation		Design	
35	OSARP	Heritage Heights Sewer Crossing		Design	Start design phase for gravity sewer installation.
36	OSARP	Valley View Road Sewer Replacement		Design	Continue design phase. Easement and permit issues in progress
37	OSARP	Snapfinger Woods Drive		Design	
38	OSARP/MMS	Royal Atlanta 3 Lift Station and Force Main Improvements		Design	
39	OSARP	Forest Spring Court		Future	Relining of sewer to occur in future.
40	OSARP	2860 Buford Highway		Future	Relining of sewer to occur in future.
41	OSARP	2650 Mill Court		Future	Relining sewer to occur in future.
42	OSARP	2112 Glenwood Avenue		Future	Relining sewer to occur in future.
43	OSARP	4367 Buford Highway		Future	Relining sewer to occur in future.
44	OSARP	410 W. Ponce de Leon		Future	Relining sewer to occur in future.

**PASARP/OSARP/MMS Project Status Table**

<b>Item No.</b>	<b>CMOM Program Document</b>	<b>Description</b>	<b>Priority Area(s)</b>	<b>Status</b>	<b>Notes</b>
45	OSARP	108 E. Ponce de Leon		Future	Relining sewer to occur in future.
46	OSARP	1736 Jericho Court		Future	
47	OSARP/MMS	New Gibraltar Lift Station		Future	
48	OSARP/MMS	Leeshire Lift Station		Future	
49	OSARP/MMS	Kings Way Lift Station		Future	
50	OSARP/MMS	Honey Creek Lift Station Rehabilitation		Future	
51	OSARP/MMS	American Fare Lift Station		Future	
52	OSARP/MMS	Hearn Road Lift Station		Future	
53	OSARP	Propose cleaning and CCTV at 3261 Buford Highway due to spill		Completed	

### Sample PASARP/OSARP Gantt Chart



### Sample PASARP/OSARP Gantt Chart

