

watershed management CITY OF ATLANTA Kasim Reed, Mayor Kishia L. Powell, Commissioner

The Department of Watershed Management & Atlanta Memorial Park Conservancy

Community Open House



AGENDA:

- Meet & Greet
- Opening Remarks & Introductions
 - District 8 Council Member Yolanda Adrean
 - Department of Watershed Management, Commissioner Kishia L. Powell
 - AMPC Executive Director, Catherine Spillman
 - Memorial Park Technical Advisory Group members, other Civic Leaders and Officials
- Department of Watershed Management Presentation
- ≻ Q&A
- Closing Remarks



AMPTAG-DWM COLLABORATIVE

The Atlanta Memorial Park Technical Advisory Group (AMPTAG) and the City of Atlanta's Department of Watershed Management (DWM) are engaged in ongoing discussions and scheduled workshops associated with the following goals:

- Eliminate wet weather overflows within and near Memorial Park and within the Peachtree Creek Sewer Basin; and
 - 2. Protect water quality in Peachtree Creek



EPA/EPD Consent Decrees

> 1995 lawsuit results in two (2) Consent Decrees

- CSO Consent Decree (Sep 1998) Project completion by 2008 (achieved)
 - o Reduce CSOs from 100/yr. at each of 6 facilities to 4/yr.
 - o Achieve water quality standards at point of discharge
- SSO Consent Decree (Dec 1999) Project completion by 2027 (per amendment approved 2012)
 - Stop 1000+ annual sewer spills
 - o Achieve a reliable sewer system
 - o Implement MOMS plan



Clean Water Atlanta: Overview

- Responsible for the overall management of the City's two Consent Decrees – CSO and SSO.
- Charge is to address operation of the City's wastewater facilities and address CSOs and SSOs within the city.
- Responsible for planning, design, and construction of improvements to the City's wastewater collection system, as well as environmental compliance and reporting to comply with the Consent Decrees.



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Clean Water Atlanta: Goal

- Clean Water Atlanta recognizes that Atlanta's economic growth, jobs, affordability and quality of life all depend on clean water.
- As such, the aim of Clean Water Atlanta is to develop and implement a long-term plan to ensure high quality drinking water for Atlanta, and clean streams and wastewater flows for Atlanta and its downstream neighbors.
- The ambition of Clean Water Atlanta is to continue efforts to create the cleanest urban streams and rivers in the country and operate a "Best In Class" utility.



Peachtree Creek Sewer Basin: Overview

- The Peachtree Creek Basin is one of (10) sewer basins and is located in the northern portion of the City's sewer system.
- Wastewater flows collected within the Peachtree Creek Basin are conveyed to the Peachtree Creek Trunk System and onward to RM Clayton WRC for treatment.
- Wastewater generated by Dekalb County is also conveyed through City trunk and relief sewers to the RM Clayton WRC and is covered by the terms of an interjurisdictional (I-J) agreement





Peachtree Creek Sewer Basin: Drainage Area





Peachtree Creek Sewer Basin – Sewer Network





December 24 - 25, 2015 - Rain Event

- Large repeated rainfall events; 5 inches over 2 days
- Flooding from Peachtree Creek
- Constraints at RM Clayton WRC
- 10:30am the creek rose beyond its banks spreading into the playground and into the sewer
- ~10:50am, the manhole began to overflow when the creek was ~ 1.5 ft over the manhole rim

Estimated flood stage on Dec 24, 2015











THE PATH FORWARD

The City Department of Watershed Management is committed to achieving the goal to eliminate wet weather-related sewer overflows within Memorial Park and the Peachtree Creek Basin. The City has developed a comprehensive list of completed, planned, and potential projects, as well as their expected beneficial impacts to continue efforts towards achieving this goal.



(12) COMPLETED PROJECTS								
PROJECT	BENEFICIAL IMPACT							
Historical Rehabilitation – Early – Mid 1990's (Various CIPP)	Eliminated structural defects found during SSES and reduce I/I							
North Fork Peachtree Creek Relief Sewer Improvements – 2001	Provided sewer system capacity per design storm eliminate wet weather sewer overflows							
Fairmont/Glidden Sewer Separation – 2001	Reduced CSOs and improved water quality							
Orme Street Trunk Relief Sewer Improvements - 2002	Provided sewer system capacity per design storm eliminate wet weather sewer overflows							
South Fork Peachtree Creek Trunk Relief Sewer Improvements- 2003	Provided sewer system capacity per design storm eliminate wet weather sewer overflows							
Indian Creek Relief Sewer Improvements - 2003	Provided sewer system capacity per design storm eliminate wet weather sewer overflows							
Sewer Group One (SG1) Small Diameter Rehabilitation – 2008	Eliminated structural defects found during SSES and reduce I/I							
West CSO Tunnel & WQCF – 2009	Provided combined system storage for peak wet weather flow awaiting additional treatment							
Old Fourth Ward Pond – 2011	Reduced peak wet weather flow to combined sewer system							
Sewer Group Two (SG2) Small Diameter Rehabilitation – 2011	Eliminated structural defects found during SSES and reduce I/I							
Peachtree Trunk Relief Sewer Rehabilitation (Bobby Jones Golf Course) - 2014	CIPP liner installed to alleviate sewer discharge to creek							
Liddell Peachtree Creek Storage Facility & Pump Station - 2014	Reduced peak wet weather flow to Peachtree Creek Trunk system.							



PLANNED PROJECTS: Underway

1. RM Clayton WRC Headworks:

Scope:

Construct new plant headworks

Beneficial Impact:

- Improve flow hydraulics and capacity entering the facility
- Improve grit removal and reduce the damaging effects of grit on subsequent unit processes
- Installation of new influent flow monitoring equipment to accurately monitor flows

Schedule:

Construction:

Start – Qtr. 1 2014; Complete – Qtr. 2 2018





PLANNED PROJECTS: Underway

2. Peachtree Creek Trunk Stabilization:

Scope:

- Clean: 700 LF of 96 " pipe, 1,300 LF of 90" pipe, and 1,800 LF of 66" pipe.
- Installation of approx. 11,000 LF of grouted PVC profile liner system
- Clean Woodward Way Siphon that is located within the vicinity of Bobby Jones Golf Course.

Beneficial Impact:

- Reduce I/I from entering sewer and robbing needed capacity
- Safeguard against future breaches and ensures public health and safety
- ensures long-term structural integrity of 90" diameter trunk sewer for 50+ years

Schedule:

- Procure Construction: Qtr. 4 2016
- Award: Qtr. 2 2017
- Construction: Start - Qtr. 2 2017; Complete – Qtr. 4 2018





PLANNED PROJECTS: Near Term

- 1) Howell Mill Outfall Replacement/Upsize/Realignment
 - Beneficial Impact : Eliminate aerial crossing, source of repeat overflows
- 2) Oldfield Outfall (Woodward Way Aerial) Replacement/Realignment
 - Beneficial Impact : Eliminate aerial crossing, source of repeat overflows
- 3) Proctor Creek Diversion Structure Rehabilitation and Automation
 - Beneficial Impact: Ability to divert up to 10 MGD from RM Clayton WRC to Utoy Creek WRC
- 4) Bolton Rd. Pump Station Rehabilitation
 - Beneficial Impact: New pumps to provide increased capacity to divert flow to Utoy Creek WRC
- 5) Clear Creek West Sewer Improvements Civic Center Storage Vault
 - **Beneficial Impact:** Reduces peak wet weather flow to combined sewer system
- 6) Advanced SG4 Rehabilitation Projects (within Peachtree Creek Basin and known repeat spill locations)
 - **Beneficial Impact:** Eliminate sources of repeat wet weather sewer overflows



PLANNED PROJECTS: Future

- 1) SG4 Small Diameter Rehabilitation (within Peachtree Creek Basin) FACD Deadline 2025
 - **Beneficial Impact:** Eliminate structural defects found during SSES and reduce I/I up to 20% (neighborhood sewers) and up to 60% (trunk sewers) within impacted sewersheds
- SG5 Small Diameter Rehabilitation (within Peachtree Creek Combined Sewer Areas) FACD Deadline
 2026
 - **Beneficial Impact:** Eliminate structural defects found during SSES and reduce infiltration up to 20% (neighborhood sewers) and up to 60% (trunk sewers) within impacted sewersheds
- 3) SG5 Capacity Relief Projects (within Peachtree Creek Basin)- FACD Deadline 2026
 - Beneficial Impact: Provide sewer system capacity per design storm -- eliminate wet weather sewer overflows
- SG6 Capacity Relief Projects (within Peachtree Creek Basin Combined Sewer Areas) FACD Deadline 2027
 - Beneficial Impact: Provide sewer system capacity per design storm -- eliminate wet weather sewer overflows



POTENTIAL PROJECTS Based on Results of Hydraulic Modeling and Analysis

- Evaluate Raising 5 Manholes within Memorial Park / Bobby Jones Golf Course
 - May offer temporary, short-term elimination of sewer overflows within Park, while awaiting completion of longer-term projects
- System-Wide Optimization of Operations
 - Analyze operation of Liddell Tank reduce conservative operational set-points
 - Upgrade Bolton Rd Pump Station Divert flow from RM Clayton to Utoy Creek WRC
 - Evaluate West WQCF treat more combined sewer flow from Tanyard / Clear Creek
 - Optimize storage of flow within Nancy Creek Tunnel
- Evaluation of Additional Wet Weather Storage Facilities
 - Additional Large Storage Tank on North Fork Peachtree Creek (similar to Liddell Tank)
 - Additional Storage Tank at Liddell Site
 - Storage/Conveyance Tunnel to RMC (similar to NC Tunnel)
 - Storage/Conveyance Tunnel to NCT Access Shaft
 - Storage/Conveyance Tunnel from South/North Fork Storage Tank(s) to NC Tunnel
 - Larger Peachtree Trunk Sewer
- Additional Storage Projects (within Peachtree Creek Combined Sewer Areas)
 - Further reduce peak wet weather flow within combined sewer system





SCHEDULE: Underway & Near Term

	1Q 2017	2Q 2017	3Q 2017	4Q 2017	1Q 2018	2Q 2018	3Q 2018	4Q 2018	1Q 2019	2Q 2019	3Q 2019	4Q 2019	1Q 2020	2Q 2020	3Q 2020	4Q 2020
RM Clayton WRC	2017	2017	2017	2017	2018	2016	2010	2010	2017	2017	2017	2017	2020	2020	2020	2020
Headworks																
Peachtree Creek																
Trunk Stabilization																
Howell Mill Rd.																
Outfall Realignment																
Woodward Way																
Realignment																
Proctor Creek																
Diversion Structure																
Rehabilitation																
Bolton Rd. Pump																
Station																
Rehabilitation																
Clear Creek West Sewer																
Improvements																
Advanced SG4																
Rehabilitation																
Projects																



Underway



Near Term





THANK YOU





Q&A