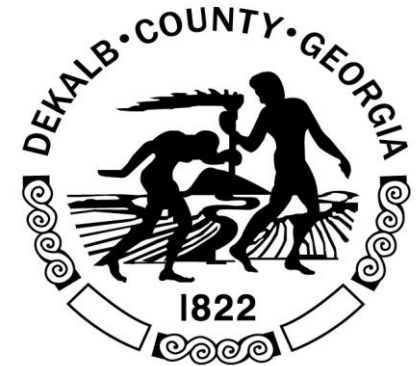


CIP 2021 DEFINITION & FUNDING REPORT

REVIEW OF CIP & OVERVIEW OF REVENUE OPTIMIZATION

January 19, 2021



AGENDA

- ▶ Review updates previously provided to PWI/BOC on proposed CIP 2021, including:
 1. CIP 2021 Definition
 2. Prioritization
 3. Consent Decree Town Hall
 4. CIP Program Management Tools
- ▶ Revenue optimization overview
- ▶ Sources of information and support
- ▶ Timeline overview.

CIP 2021 DEFINITION & FUNDING REPORT



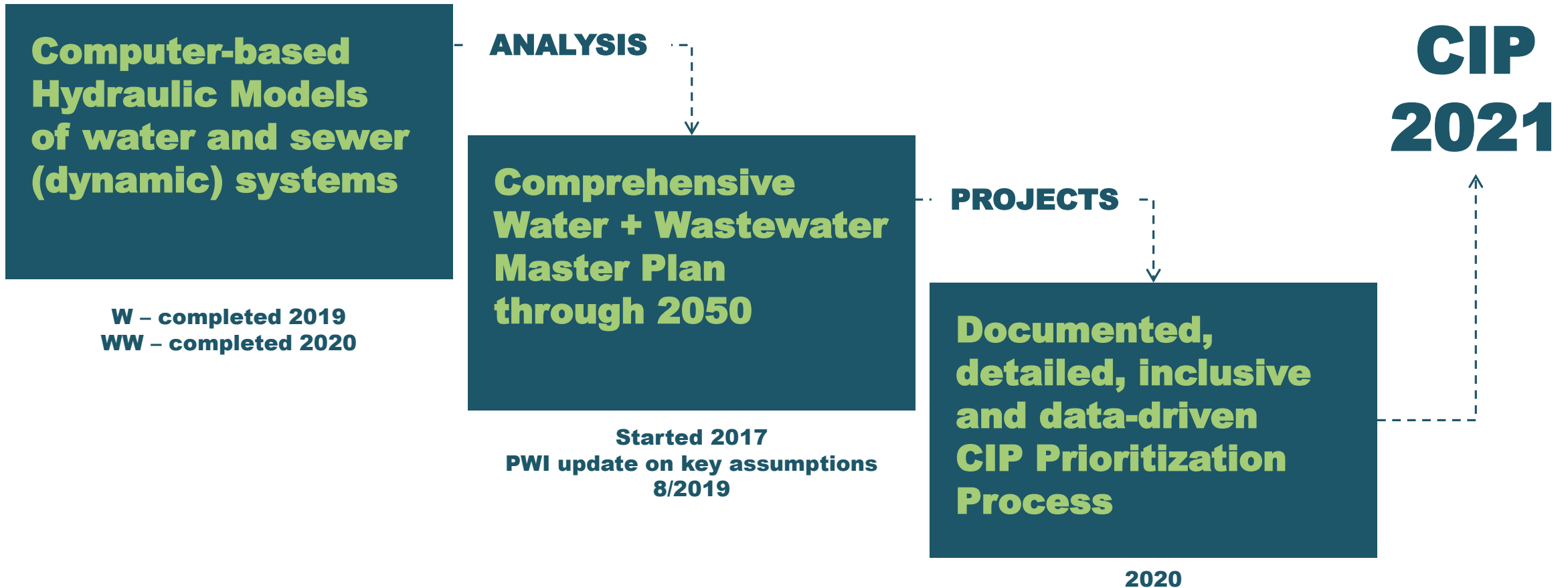
PART 2:

CIP 2021 Definition

(PWI 9/1/2020)

CREATION OF CIP 2021

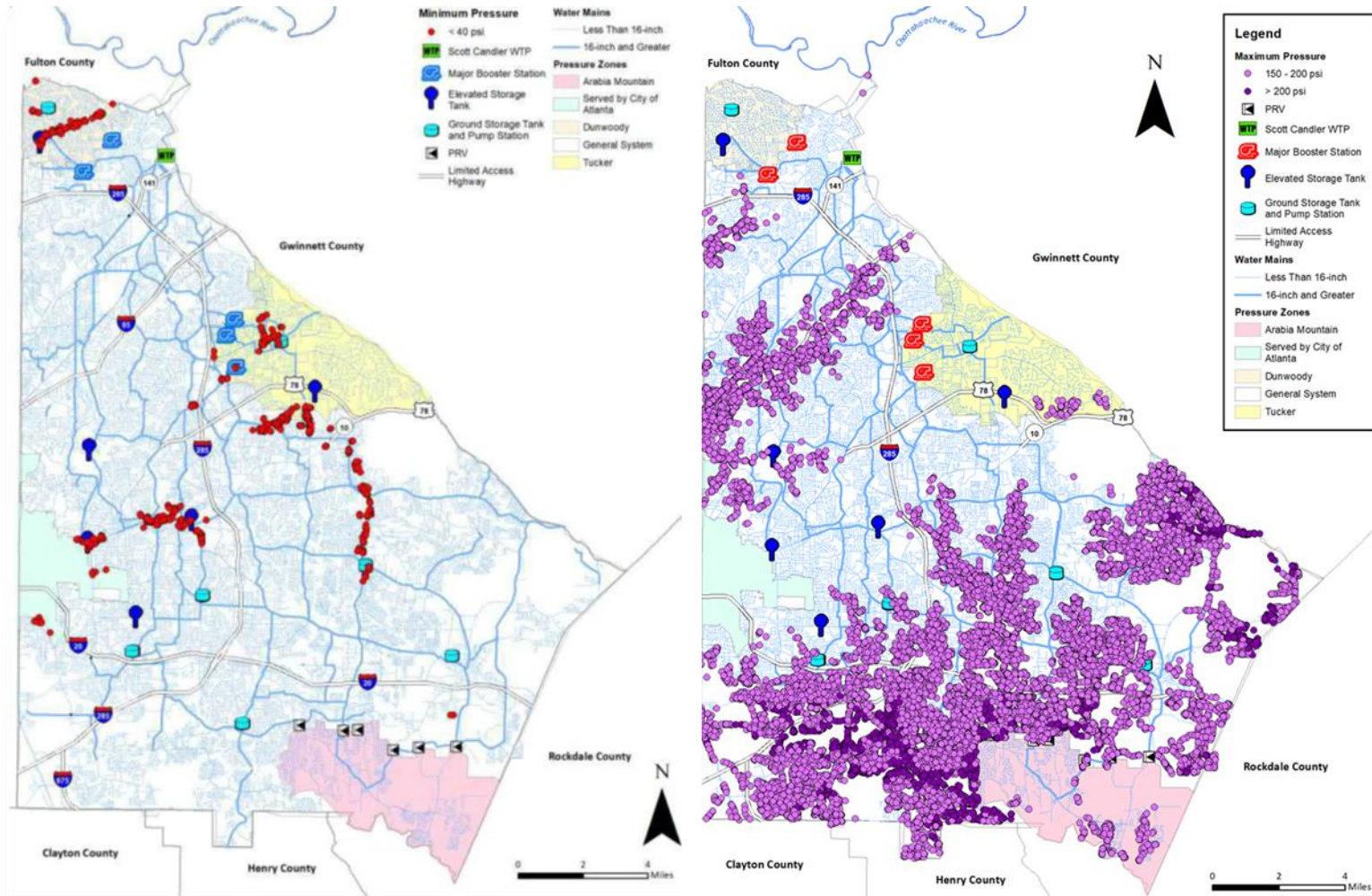
STATE-OF-THE-ART TOOLS ALLOW
BEST-PRACTICE PLANNING & PRIORITIZATION



COMPUTER-BASED HYDRAULIC MODELS

Allow new level of understanding of the performance of DWM's system

- ▶ Identify & troubleshoot system issues (e.g. Briarcliff 2019)
- ▶ Evaluate and compare alternative future scenarios
- ▶ Compare costs and benefits of different alternative servicing solutions



WATER MODEL SAMPLE OUTPUT

DWM's FIRST WATER & SEWER MASTER PLAN

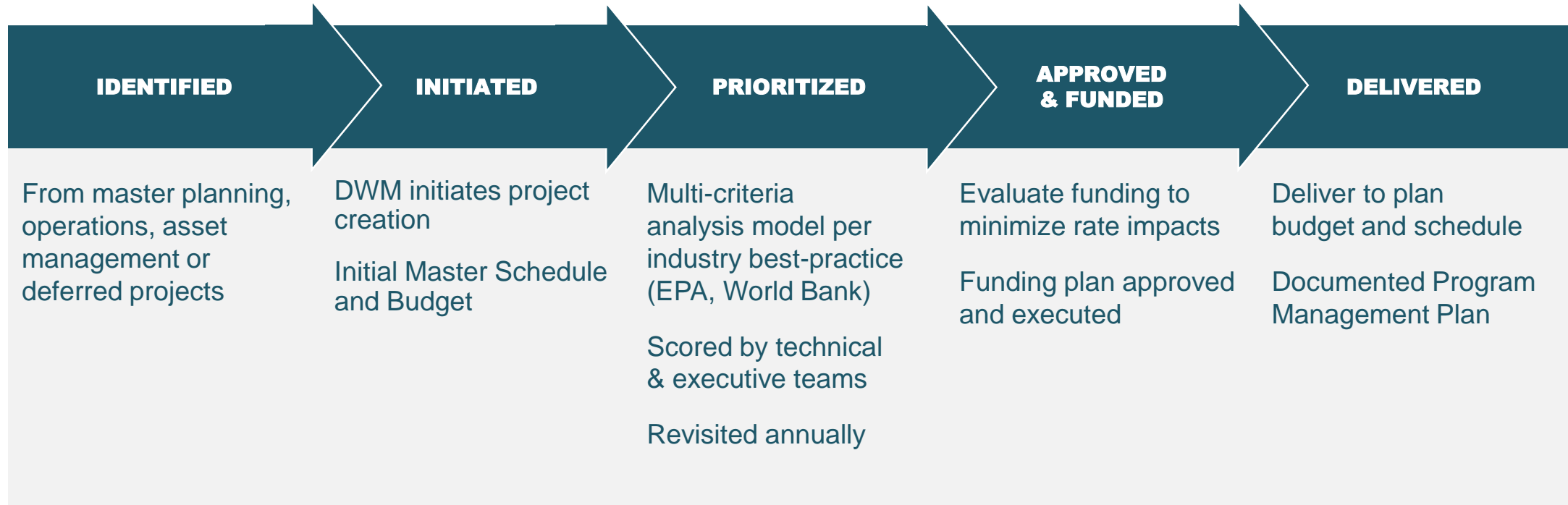
- ▶ Strategic planning for 2020-2050, with view to 2070
- ▶ Project future demand levels based on best-practice projections of future population and employment
- ▶ Develop and evaluate servicing alternatives to meet future demand
- ▶ CIP 2021 is the short-view, 10-year, action plan of the Master Plan.

STAKEHOLDER INVOLVEMENT

- DeKalb County Executive
- DeKalb County Board of Commissioners
- DWM Project Management Teams
- DWM Leadership
- Technical Committee (DWM technical, operational and CDPMT staff)
- Steering Committee (incorporated cities and local agencies in DeKalb County – MARTA, DMA)
- Other DeKalb County department leadership and support staff (Planning, Fire Rescue)
- Regional and state agencies (consultation regarding permit requirements)

DATA-DRIVEN, BEST-PRACTICE PRIORITIZATION PROCESS

Projects are:



CIP 2021 DEFINITION & FUNDING REPORT



PART 3:

Project Prioritization


(PWI 9/15/2020)

PROJECT PRIORITIZATION

- ▶ Multi-criteria tool allows competing priorities to be systematically evaluated by a broad group of stakeholders
- ▶ 44 water and 105 wastewater projects identified to meet level of service, prioritized and ranked - with ~80% in CIP 2021

FACTORS	FACTOR WEIGHT	CRITERIA	CRITERIA WEIGHT
COMPLIANCE	50%	Water Quality / Surface Water Quality	5%
		Tighten of System	5%
		Public Health & Safety	30%
		Regulatory Compliance	30%
		Resilience	30%
FINANCIAL	20%	Cost Recovery	25%
		Reduction of Operational Cost	25%
		Concurrence w/ Other CIP Projects	25%
		Life Extension of Asset	25%
SOCIAL & ENVIRONMENTAL STEWARDSHIP	30%	Employment (More Jobs)	10%
		Economic Growth / Development (Social Justice)	30%
		Quality of Life / Customer Satisfaction	30%
		Impacts to Natural Resources	10%
		Energy Efficiency Lower Carbon Footprint	20%

PROJECTS DEFINED & SCORED

DWM CIP Program - Project Information 

Project Manager: _____


Project Name	Project Number	Proposed Planning Budget	Date Created	Commissioner District	Project Manager
Dunwoody Ground Tank Replacement	W - DS GT01	\$6,733,000		XXXXX	
Design Schedule (anticipated)					
Duration		100% Design Submittal	Bid Document to P&C		
Procurement Schedule (anticipated)					
Advertisement	Pre-Proposal Conference	Proposal Opening	BOC Date	NTP	
Design Schedule (anticipated)					
Duration Days		Substantial Completion	Final Completion		


Description
 10 ft of 8-inch Water Main
 8-inch FCV and valve vault
 Dunwoody Existing Ground Tank Decommission
 Dunwoody Ground Storage Tank - 1 x 3 MG GST

Implementation Considerations
 implementation Considerations test

Details
 details test

Benefits
 benefits test



 **DWM Project Prioritization CIP Program**

Project Name **Overall Score**
Dunwoody Ground Tank Replacement **3.3/5**

Class	Criteria	Score	Justification
Environmental	Drinking Water Quality	Low	
	Leak Reduction	Medium	
	Energy Efficiency	Medium	
	Impact to Natural Resources	Medium	
	Permittability/ Regulatory Complexity	Medium	
Financial	Revenue Generation	Medium	
	Reduction of Operational Cost	Medium	
	Concurrence with Other CIP Projects	Medium	
Social	Employment (Job Creation)	Medium	
	Supporting Growth & Development	Medium	
	Quality of Life/Customer Satisfaction /Resilience	High	
	Public Health/Safety (Fire Protection)	High	

CIP 2021 SUMMARY

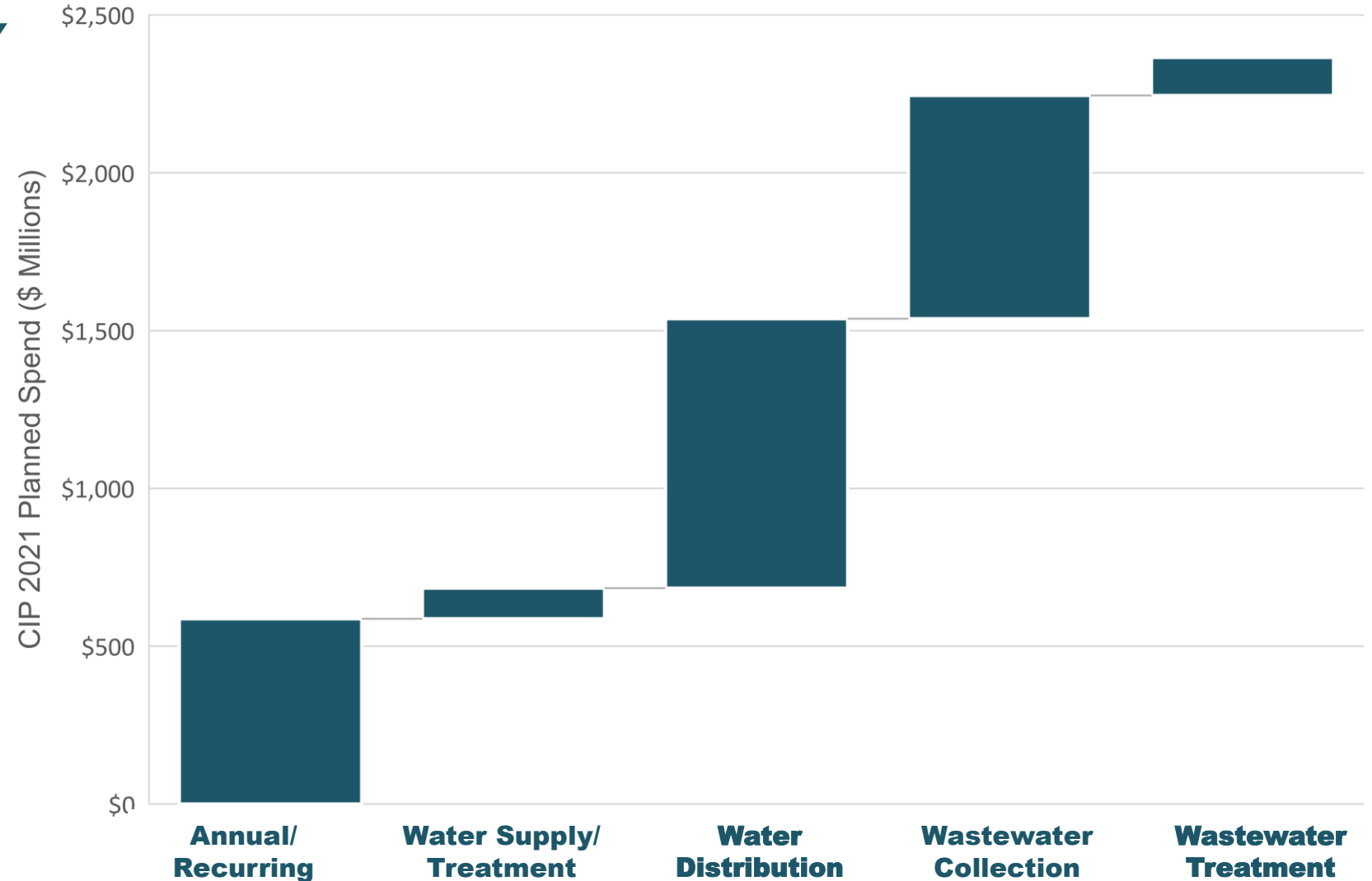
**PROPOSED
PLANNED SPEND
\$235 M/YR**

Average annual investment

**5 PROJECT
CATEGORIES**

*Annual/Recurring
Water Supply and Treatment
Water Distribution
Wastewater Collection
Wastewater Treatment*

CIP 2021 Planned 10-Year Spend by Category



WATER DISTRIBUTION



✓ Tuberculation: build-up of corrosion that restricts water flow

✓ Aging AC pipe is past its service life and prone to breaks.

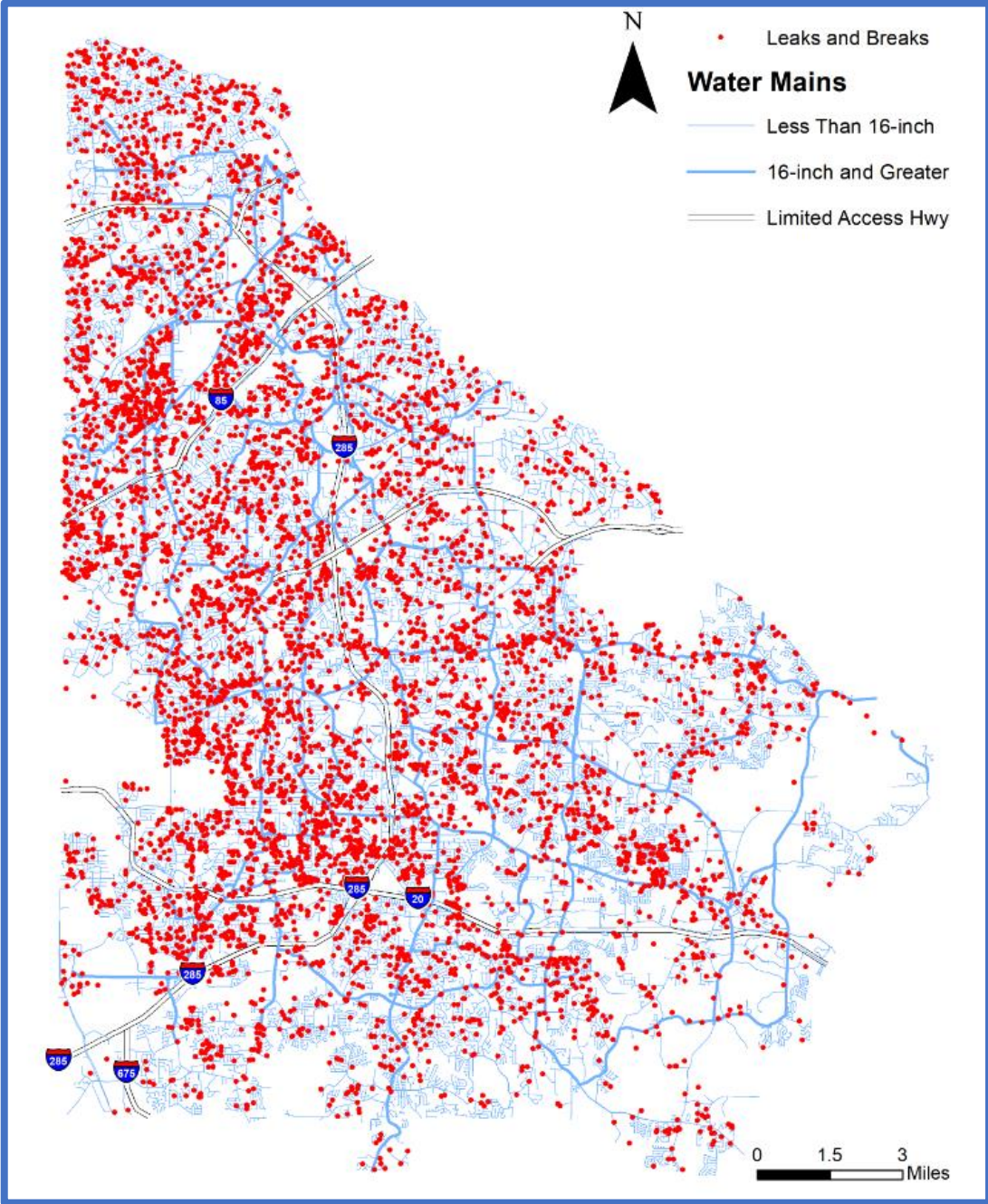


- ▶ By 2030 ~600 miles of water pipe needs replacement due to age, size and/or material type
- ▶ Age of pipes can cause risk of breaks or tuberculation
- ▶ Using a new risk-based approach and hydraulic modeling to prioritize projects
- ▶ **Non-revenue water (NRW) at unacceptable levels - ~29% compared to best practice of ~10%.**

A County-wide Investment



Red dots are breaks that occurred between 2009 and 2019



CIP 2021 DEFINITION & FUNDING REPORT



PART 5:

Consent Decree Town Hall

(CEO On-line event - 10/15/2020)

What is a trunk sewer?

- ▶ Trunk sewers receive wastewater from many tributary feeder branch sewer lines.
- ▶ They convey the combined flows to the treatment plants.
- ▶ The County's trunk sewers range from 30 inch to 72 inch in diameter.

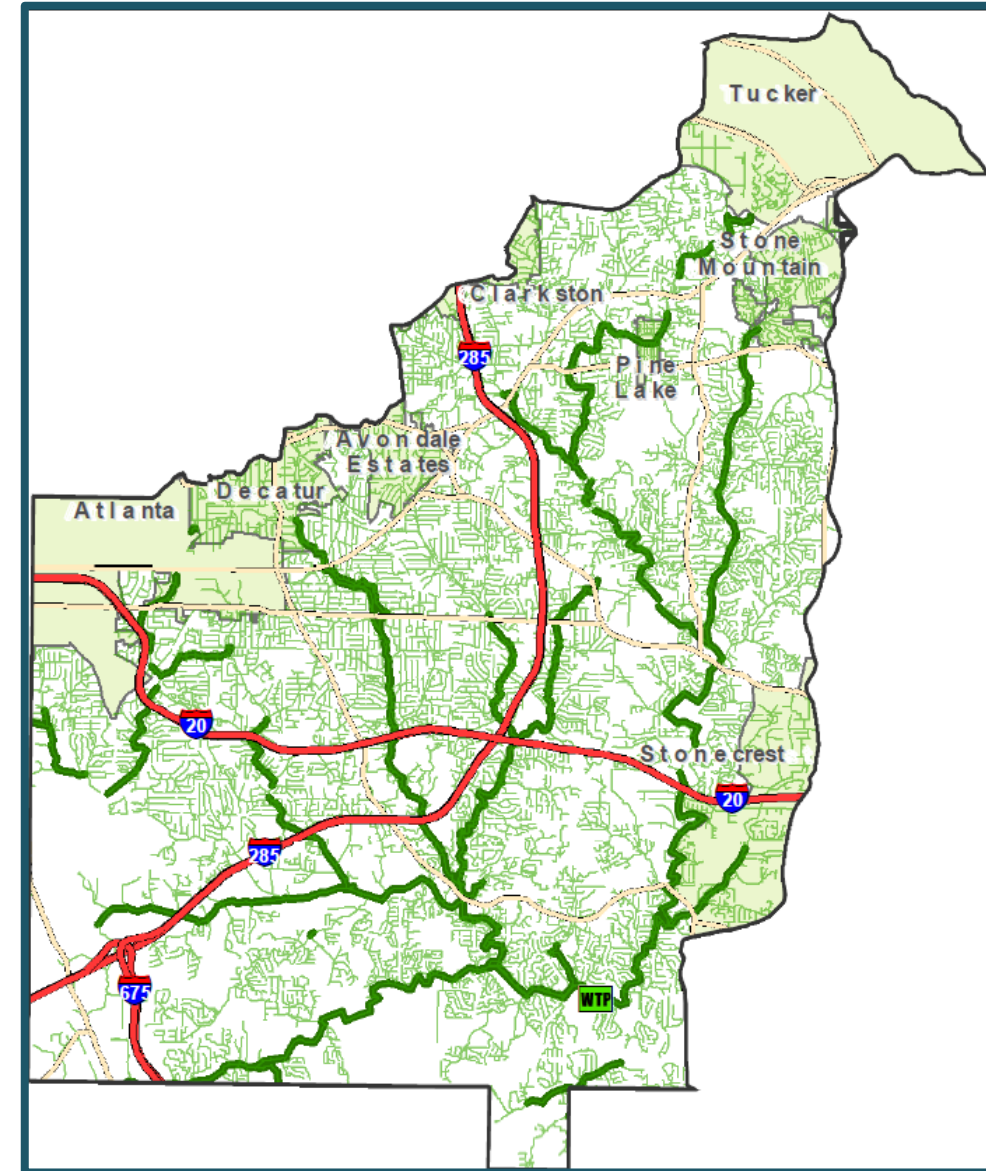
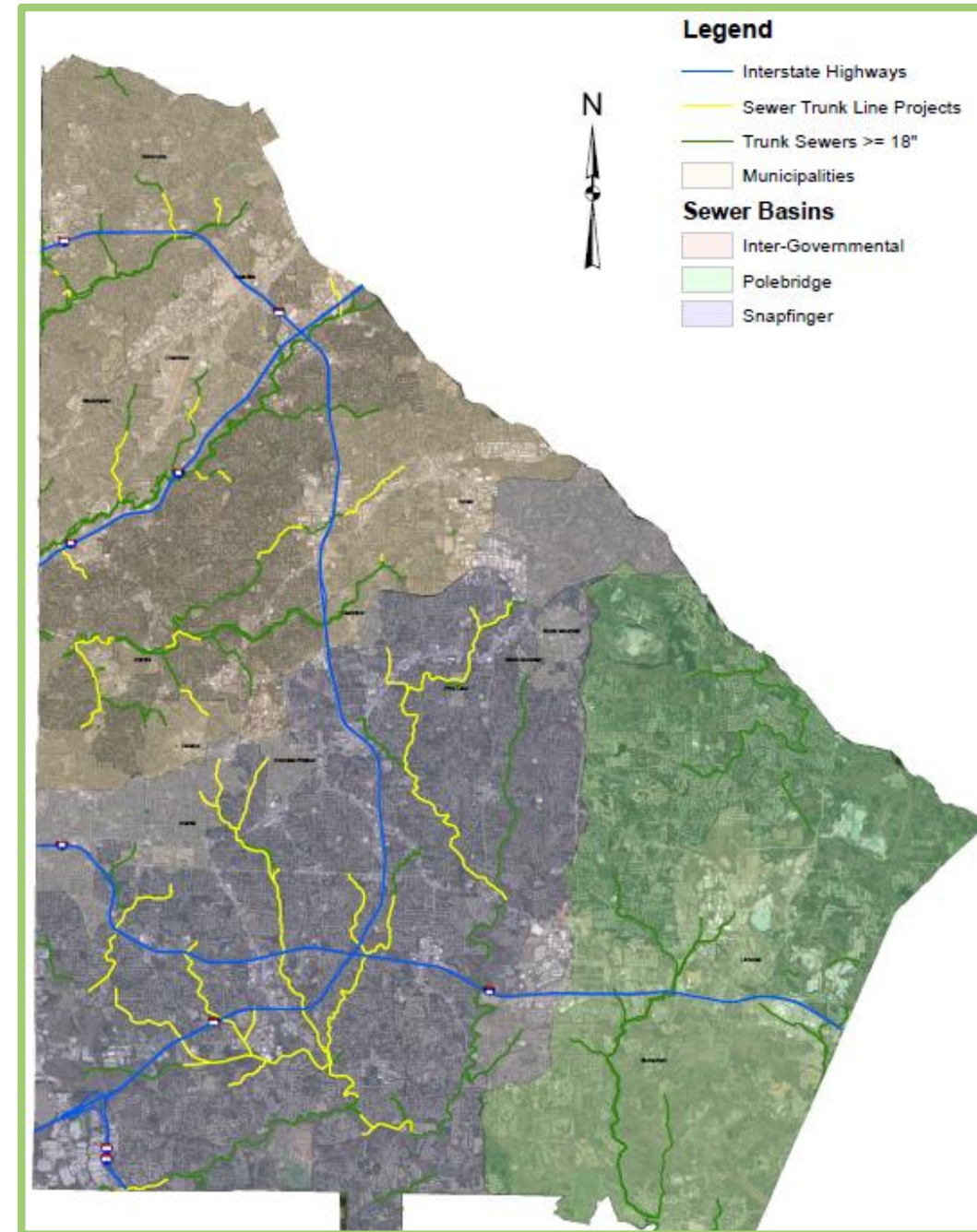


Figure:
Trunk and branch sewers in the Snapfinger basin

Repair, Replace, or Install 59 miles of New Trunk Sewer Lines

SEWERSHED	LENGTH (MILES)
Snapfinger	41
Pole Bridge	3
South Fork Peachtree Creek	10
North Fork Peachtree Creek	4
Nancy Creek	1
TOTAL	59

Greatest needs in the Snapfinger Basin (~41 miles)



Investments

Trunk Sewer Project Cost Estimates

Current planning estimates indicate the following required trunk sewer capacity investments by area.

Project Type	Snapfinger Basin (Millions)	Whole County (Millions)
Trunk Sewer Pipe Capacity	\$193	\$268
Sewer Tank Storage	\$170	\$170
TOTAL	\$363	\$438

CIP 2021 DEFINITION & FUNDING REPORT



PART 6:

Program Management Tools

(PWI 11/17/2020)

PROGRAM STRATEGIES

DOCUMENTED & ENFORCED PROCESSES

Program Management Plan

- ▶ Program/Project roles documented through program/project lifecycle

PMIS

- ▶ Workflows
- ▶ Control/Tracking
- ▶ Reporting.

ORGANIZATION & GOVERNANCE

PMO Structure

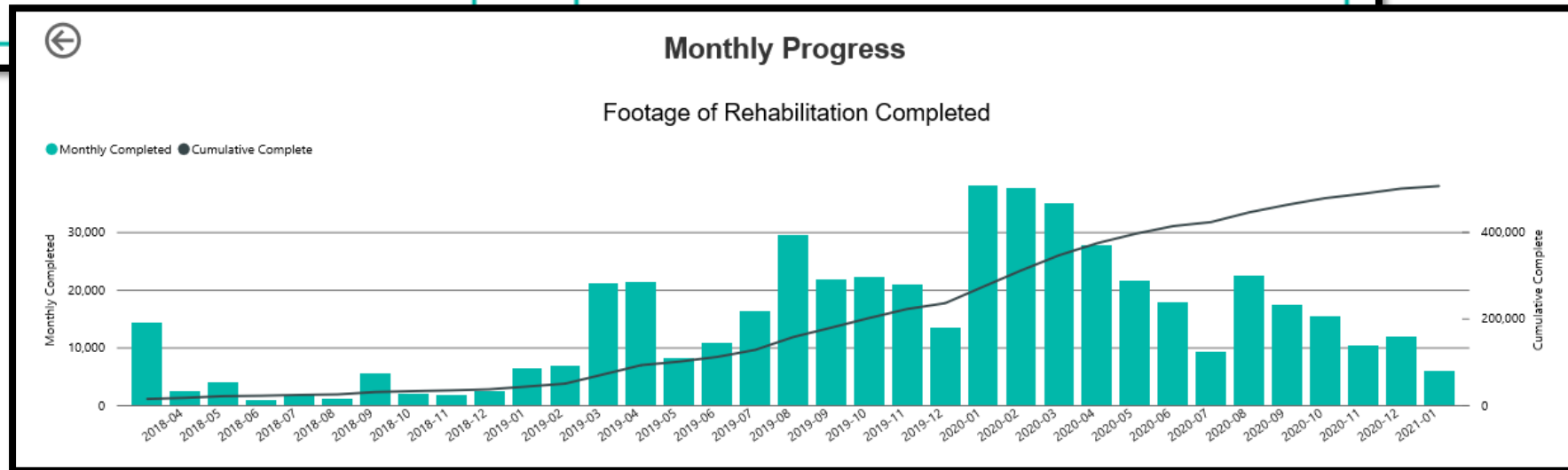
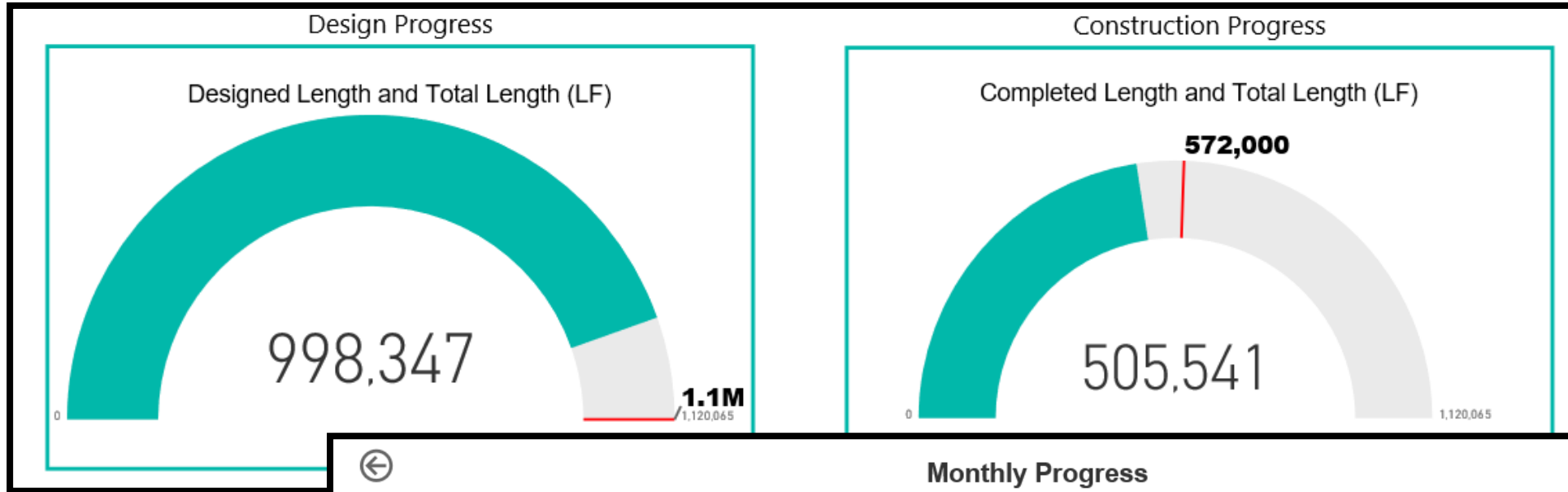
- ▶ Defined and optimized balance of staff and consultants
- ▶ Develop towards DWM self reliance
- ▶ Defined reviews, approvals and escalation paths.

CONTRACT PACKAGING

Mature Contractor Pool

- ▶ Maximize contractor involvement through optimal mix of contract types and sizes
- ▶ Continuity and predictability leads to preferred pricing.

PROJECT MANAGEMENT INFORMATION SYSTEM (PMIS)



DOCUMENTED OUTREACH METHODS

Across multiple platforms

GovDelivery

Video/YouTube



December 19, 2017

Phase one of construction nearing the end at the Lower Crooked Creek Pump Station I project site



Sol Construction crews, working on behalf of DeKalb County Department of Watershed Management (DWM) have initiated construction to improve to the Lower Crooked Creek Pump Station I located at 7364 Drake Avenue, in Lithonia. Last week, crews demolished the existing pump station access road, and

replaced the collapsed concrete culvert in the pump station.

Next, crews will install concrete footings for the new sewer crane system, completing phase one of construction at the site. Normal construction hours will be Monday through Friday 7a.m. to 7p.m., excluding major holidays. Lakes of Kilkenny residents are advised to expect an increase in

DeKalb Watershed Traffic Alert



Road Closure

Fairoaks Road

Between Wilshire Lane and Oak Grove Road

January 8 - 17, 2018
9 a.m. thru 4 p.m.
Weekdays

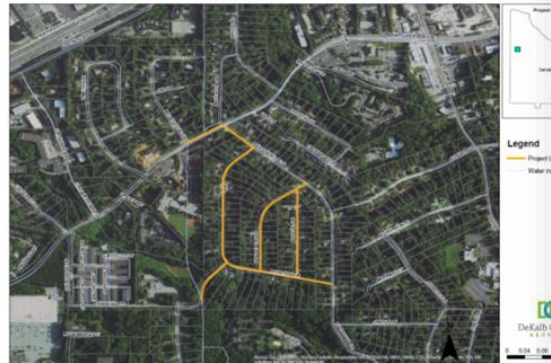
For traffic related news check www.dekalbcountyga.gov/watershed-management
Sign up for other DWM email updates: info@dekalbcountyga.gov

Social Media

Project Websites

IHM Briarcliff Heights Water Main Replacement Project

Impacted Areas for Briarcliff Heights Water Main Replacement Aerial



Project Details

Name: IHM Briarcliff Heights Water Main Replacement
Type: Drinking Water
Location: Briarcliff Road between Mount Royal Drive and Beacon Hill Boulevard
Cost: \$9 million
Project Timeframe: Winter 2017 - Spring 2018

Project Description

This project will replace 3,100 linear feet of water main (pipe) along Briarcliff Road from Mount Royal Drive to Beacon Hill Boulevard impacting residents on Belle Isle Circle, Bridgeport Drive, and Bristol Drive. The Department of Watershed Management is installing an eight-inch water main to replace the aging six-inch water main. This work is designed to meet future demand for water services, reduce water main breaks and water outages. Please note: local traffic delays are anticipated with this project, which will require traffic lane closures.

Follow Project Status

- Start of Construction Letter
- Project Overview
- Frequently Asked Questions (FAQs)

CIP 2021 DEFINITION & FUNDING REPORT



Overview of Revenue Optimization

(PWI 9/21/2020)

Optimizing Finances

Maximizing revenues while minimizing expenses

Increase Revenue

Convert Non-Revenue Water to revenue

- Reduce unauthorized consumption
- Accurate meters and bills
- Collect bills

Collect what is due

- Collect past-due accounts
- Reduce un-paid accounts
- Resolve disputed accounts

Revenue

- Revenue sufficiency
- Revenue structure

Decrease Expenses

Reduce cost of debt

- New low-cost loans identified: WIFIA and GEFA
- Refinance existing bonds and better bond options going forward
- Reduce negative arbitrage

Lost Water

- Reduce cost of treating and delivering water that is lost before sale

Revenue Optimization

Minimize the difference between water produced and water sold

Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption
		Billed Unmetered Consumption
	Unbilled Authorized Consumption	Unbilled Metered Consumption
		Unbilled Unmetered Consumption
Water Losses	Apparent Losses	Unauthorized Consumption
		Customer Metering Inaccuracies
		Systematic Data Handling Errors
	Real Losses	Leakage on Transmission and/or Distribution Mains
		Leakage and Overflows at Utility's Storage Tanks
		Leakage on Service Connections

Past due/zero customer accounts

URM Audit

New Day Project

URM Audit

Satellite Leak Detection/CIP focus

Care and Conserve Program

Revenue Optimization Summary

- ▶ Collections:
 - ▶ Past-due accounts – 12-13% when industry norm is 0.5-2%
 - ▶ Zero customer accounts
 - ▶ Moratorium
- ▶ Account errors:
 - ▶ New Day project – increased accuracy of bills
 - ▶ URM audit of commercial customers
- ▶ Reduces losses:
 - ▶ Satellite leak detection/CIP 2021 focus
 - ▶ Care and Conserve Program.

Benefits



BENEFITS

ENVIRONMENTAL STEWARDSHIP

Benefits to Our Shared Environment:

- ▶ The ecological health of our water resources benefits both the environment and our citizens.

JOBS CREATION

PASARP Rehab and Trunk Sewer Projects will:

- ▶ Create an estimated 1,891 jobs created 2021 through 2026.

ALLOW GROWTH AND DEVELOPMENT


New commercial development:

- ▶ Since 2017 there have been 1,551 requests to connect, with 381 pending approval.

PLANNED GROWTH

By 2050:

- ▶ Population served to be ~900,000
- ▶ Employment in the County's service area to be ~640,000.

A construction site with a blue overlay. In the foreground, there is a deep trench with a large pipe being installed. Several workers in hard hats and safety vests are visible. A large pipe lies on the ground to the right. In the background, there are trees and a building.

SOURCES OF INFORMATION AND SUPPORT



HOW CAN WE HELP?

Please Visit The CIP 2021 SharePoint Site

Any issues, please contact:

AVIS BLANTON

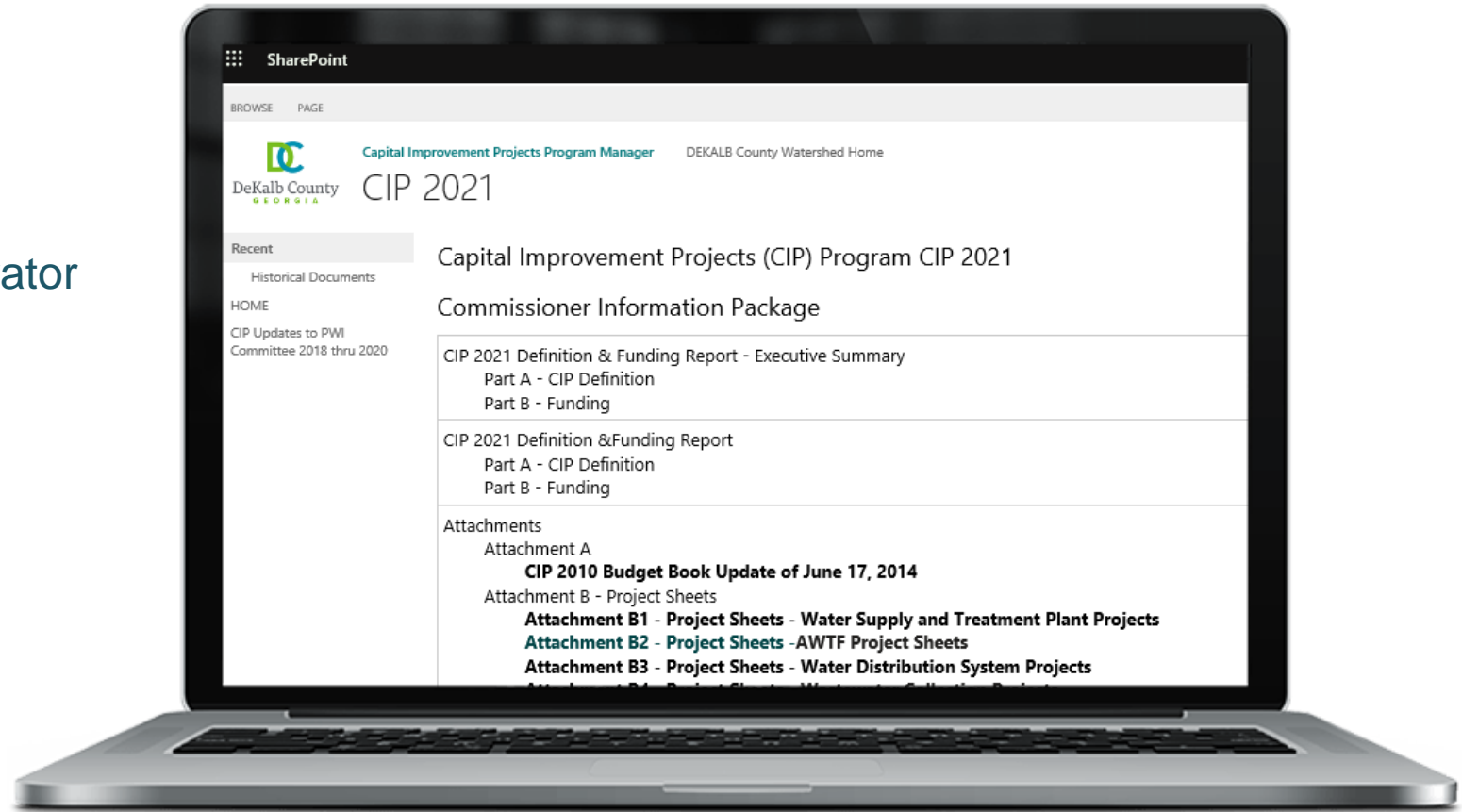
AECOM

DeKalb CIP, Document Control Administrator

770.414.6XXX (office)

678.XXX.XXX (cell)

ablanton@dekalbcountyga.gov



HOW CAN WE HELP?

The CIP Team is available at any time for one-on-one sessions with Commissioners on CIP 2021 and its definition and funding.

NEXT STEPS



UPDATED TIMELINE

**INFORMATION
SESSION ON
MASTER PLAN**

COMPLETE

**APPROVE CD
MODIFICATION**

COMPLETE

**APPROVE
CIP 2021**

ONGOING

WIFIA LOAN

COMPLETE

GEFA LOAN

COMPLETE

**APPROVE
LONG-TERM
FINANCIAL PLAN**

ONGOING

**REVIEW
BILLING
IMPROVEMENTS**

ONGOING

Questions?

