

A scenic view of the Atlanta skyline, including prominent skyscrapers like the Bank of America Tower and the Sun Life Building, reflected in the calm waters of a river or lake. The sky is blue with scattered white clouds.

ACWA 2020 Annual Meeting Integrated Planning in Atlanta

August 5, 2020



CITY OF ATLANTA
Keisha Lance Bottoms, Mayor
Mikita Browning, Interim Commissioner



Delivers 100 MG of drinking water per day
Treats 188 MG of wastewater per day

1.2M

Customers
Served

\$609M

Annual
Operating
Budget

\$1.26B

5-YR Capital
Improvement
Program

WATER SYSTEM

3,028 miles of pipeline
62,204 valves
24,385 fire hydrants
18 pump stations
3 water treatment plants

WASTEWATER SYSTEM

1,900 miles of pipeline
47,327 manholes
22 pump stations
4 water reclamation centers
2 water quality control facilities

WATERSHED PROTECTION

603 miles of pipe
47,351 inlets
2,349 culverts
6,175 outlets
14 drainage basins

No Stormwater Utility Fee

Damaged Infrastructure



Street Flooding



Water Quality Issues

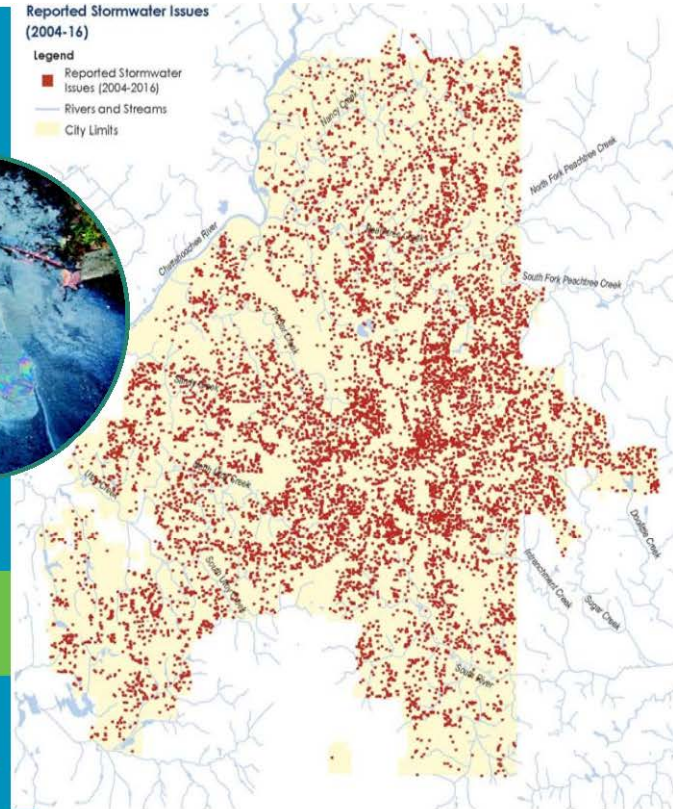


DWM receives about 1,300 complaints about stormwater issues every year.

Issues are city-wide.

Reported Stormwater Issues (2004-16)

- Legend
- Reported Stormwater Issues (2004-2016)
 - Rivers and Streams
 - City Limits



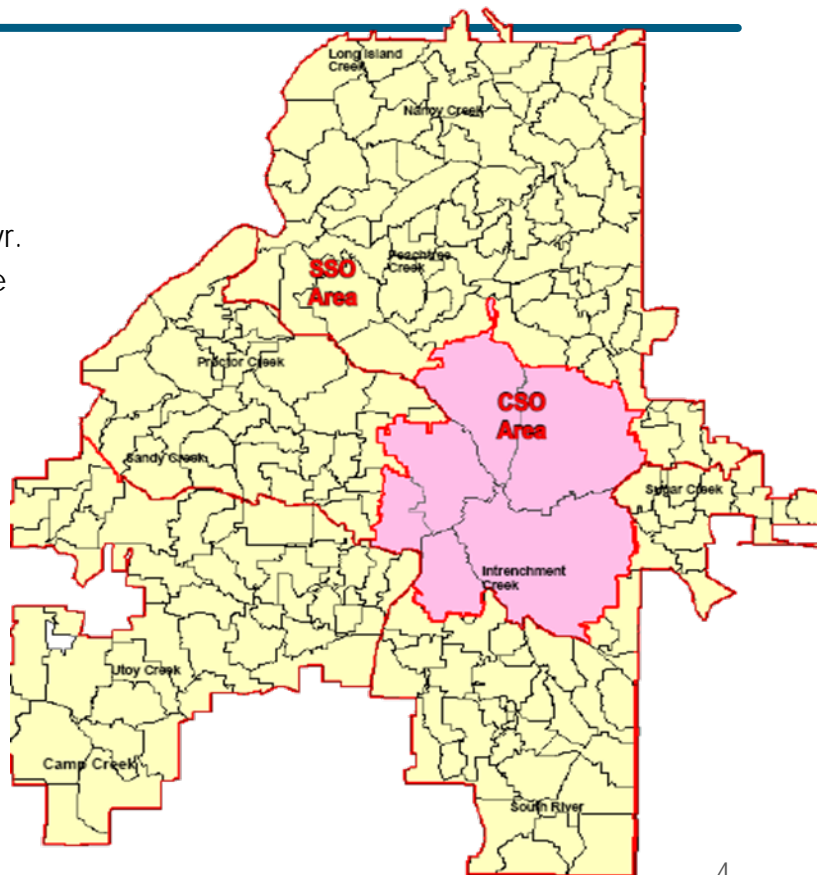
Regulatory Drivers

Consent Decrees

- CSO Consent Decree (Sep 1998) – Project completion by 2008 (achieved)
 - Reduce CSOs from 100/yr. at each of 6 facilities to 4/yr.
 - 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
 - Achieve a reliable sewer system
 - Implement MOMS plan

NPDES Permits

- MS4 (Green Infrastructure)
- CSO (Integrated Plan, Green Infrastructure)
- Wastewater – Watershed Protection Plan
- WW & SW--(Metro District Water Resources Plans)





Historic Fourth Ward Park

- In 17-acre park setting
- CD solution saved \$15M over the grey infrastructure solution (tunnel and underground storage)
- Brownfield clean-up
- \$475M in economic investment followed



Green Infrastructure Strategic Action Plan

GREEN INFRASTRUCTURE GOAL:

225 Million Gallon
Reduction of
Runoff Annually

(Annual 1% reduction in volume
of runoff from a 1" storm)

- GI Task Force created in 2012
- GI Task Force leverages multiple stakeholders
- Highlighted Atlanta as leader in GI Implementation
- Four action areas including sustainable funding and policy development



Urban Waters Federal Partnership



- Atlanta's Proctor Creek Watershed one of 19 designated Urban Waters in the US
- Connecting 35 neighborhoods
- Over \$100M investment needed to restore watershed and improve water quality
- Opportunity to introduce innovative financing approach
- At least 27 GI and Stream Restoration project opportunities identified

EXISTING CONDITION



GREENSFERRY

GREEN SPACE & STREAM RESTORATION



CITY OF ATLANTA DEPARTMENT OF
**watershed
management**

SUMMARY: This project restores a degraded segment of Proctor Creek channelized in concrete in the 1960's. By restoring a natural stream channel and floodplain access, this project will be able to increase storage by over 5 million gallons of water during rain events, protecting downstream communities from flash flooding while also improving water quality and aquatic habitat. In addition, the restored green space will be a community asset providing other ecosystems services for the adjacent community including cleaner air and temperature regulation, as well as proven health benefits associated with proximity to green space and walking trails.



**5M
GAL**

ADDED
FLOOD
STORAGE



CLEANER AIR



IMPROVED
WILDLIFE
HABITAT

COMMUNITY ASSET

CONNECTION TO NATURE

HEALTH BENEFITS



FLOOD
STORAGE

IMPROVED
WATER
QUALITY



FLOOD
STORAGE

ADJACENT TO
NEIGHBORHOOD

PEDESTRIAN
ACCESS

RESTORED
FLOODPLAIN

RESTORED
STREAM CHANNEL

RESTORED
FLOODPLAIN





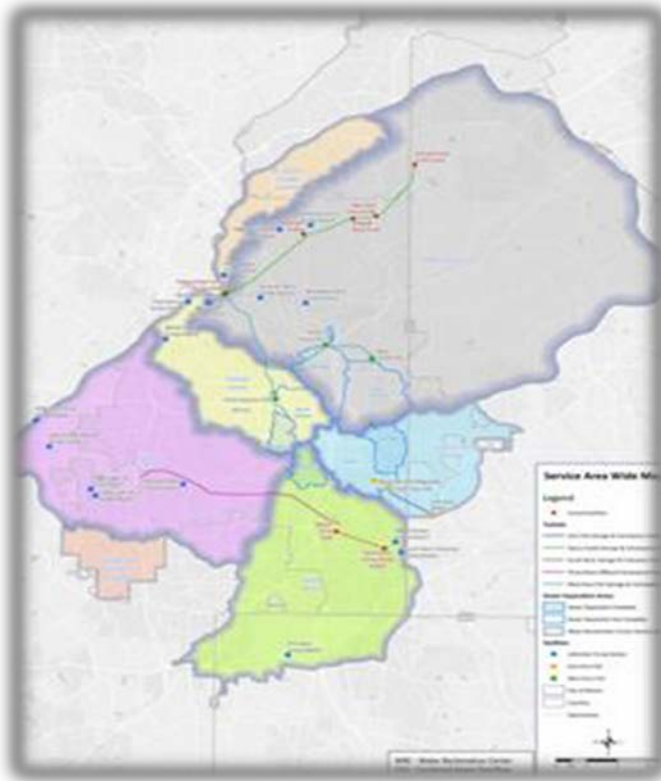
Capacity Relief Ponds at
Rodney Cook Sr. Park
(Rendering)

An aerial photograph showing a large, rectangular rock quarry that has been repurposed as a water reservoir. The reservoir is filled with a deep blue-green water. The quarry's steep, layered rock walls are visible. The surrounding area is lush with green trees and vegetation. In the background, the Atlanta skyline is visible, including several tall skyscrapers. A road or path runs along the edge of the reservoir.

Water Supply Program

- The WSP reflects Atlanta's **\$350 million investment to address aging infrastructure and create a more sustainable water future** by creating a five-mile tunnel to repurpose an old rock quarry as a new raw water reservoir to hold 2.4 billion gallons; increasing the City's water reserves from 3 to 30 days or more and **protecting \$100M a day in economic output.**

Integrated Water Resources Plan (2020)



Water, Wastewater, & Stormwater Master Plans

- Assess system
- Identify deficiencies
- Regulatory compliance
- Recommend improvements (2070)

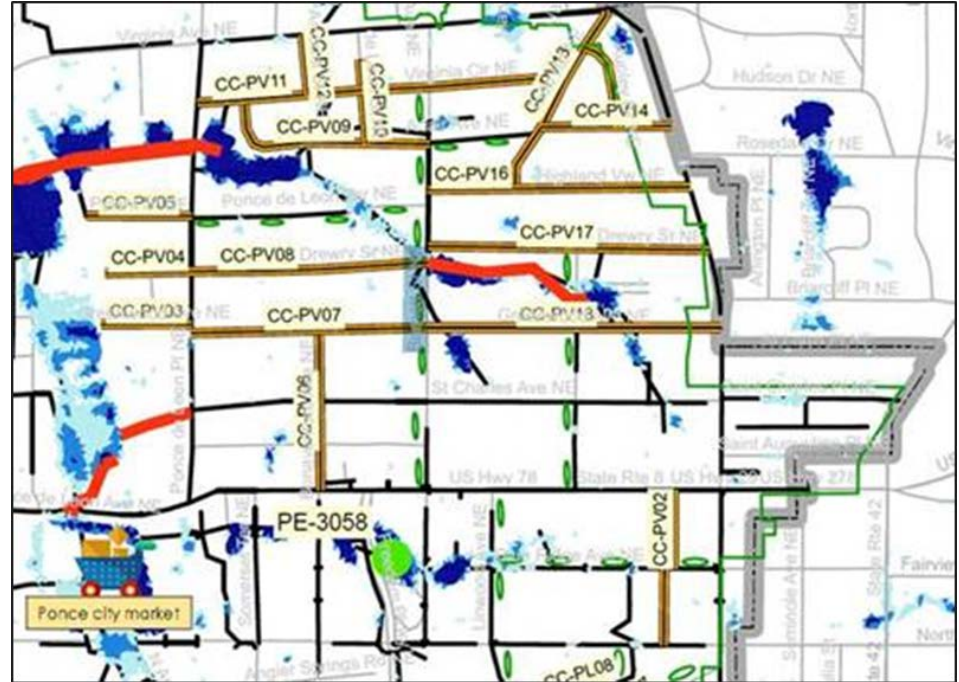
Gray-Green Integration

RMR Plan based on 2-yr level storm

- Projects were mainly upsizing or replacing existing gray infrastructure
- Costs developed for each project

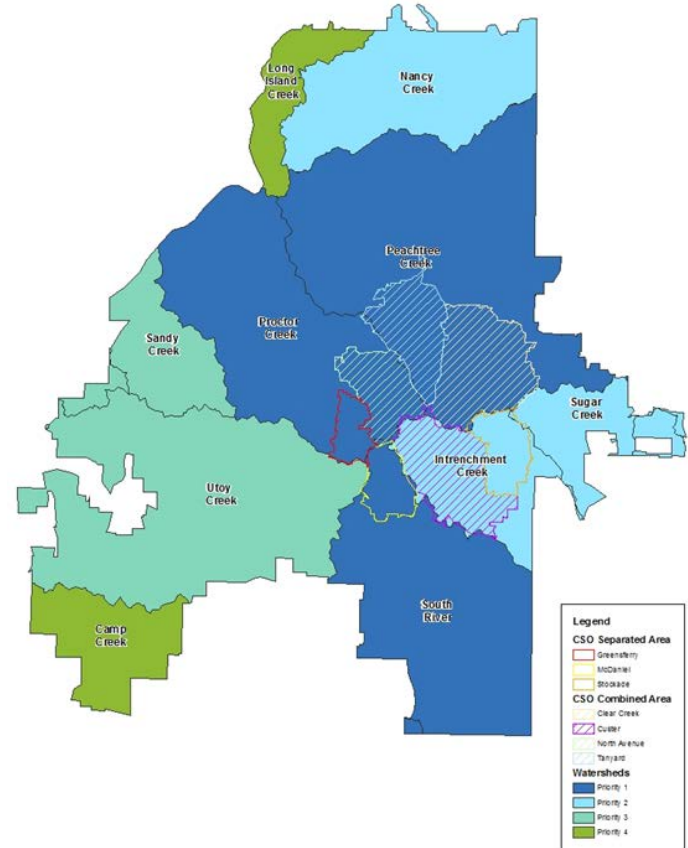
Question?? How to incorporate more **GI** projects to offset some of the gray projects

- Optimize the projects and come up with a combination of both Gray/Green options at a lower cost



Integrated planning approach

- evaluate sustainable solutions (TBL)
- combine both traditional gray infrastructure with green infrastructure
- leverage infrastructure improvements for multiple benefit
- supplement the investments being made in the separate and combined sewer systems



Atlanta Water Equity Task Force



THE PILLARS OF WATER EQUITY:



Ensure all people have access to clean, safe, affordable water service



Maximize the community and economic benefits of water infrastructure investment



Foster community resilience in the face of a changing climate

- **WORKFORCE DEVELOPMENT** - Streamline communications and opportunities to reach vulnerable communities
- **COMMUNITY ENGAGEMENT** - Authentically engage communities in the project planning process
- **AFFORDABILITY** - Develop DWM's affordability strategy that balances need to invest in infrastructure with economic impact to customers
- **CLIMATE RESILIENCE** - Assess the vulnerability and potential effects of climate related disturbances, while taking steps to better cope with these impacts.

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