Integrated Planning in Action

2019 Integrated Plan for the City of Atlanta

Atlanta, Georgia

Cook Park capacity relief project.
Photo courtesy of J. Cory Rayburn.

CITY OF ATLANTA DEPARTMENT OF watershed management

EPA Region 4

500,000 *population*

CSO MS4

Atlanta is the capital of Georgia, home to approximately 500,000 people and the center of a metropolitan area of more than 6 million people. The city operates separate sanitary and combined sewer systems, which connect to three wastewater treatment facilities that discharge to the Chattahoochee River. The combined sewer system also includes remote treatment facilities that provide partial treatment of combined sewer overflows (CSOs) during heavy storms. In addition to these wastewater sewer systems, Atlanta operates a storm sewer system[1] that discharges to the Chattahoochee and Ocmulgee Rivers. The Chattahoochee is popular for tubing, paddle boarding, and canoeing, and was the first U.S. river to be named a National Water Trail.

Challenges

Excess stormwater entering Atlanta's combined sewer system during storms causes CSOs. The wastewater treatment facilities may also reach maximum capacity because of excess flows from the combined sewer or inflow into the sanitary sewer system during these storms. The CSO remote treatment facilities are designed to reduce pollution from these overflows; they go into operation at certain CSO points when the wastewater treatment facilities are at maximum flow treatment capacity. In 2015, some of these remote "partial treatment" facilities did not treat to levels that met water quality standards for metals, so the Georgia Department of Natural Resources issued Atlanta two combined sewer system permits that required the city to develop an integrated plan to address discharges from the partial treatment facilities. The permits specified that green infrastructure and innovative technology should be considered as mechanisms to protect human health and improve water quality in the integrated plan. In addition, the city must comply with permits for its wastewater treatment facilities and a stormwater permit for discharges from the storm sewer system.

[1] Storm sewers and storm sewer systems can also be referred to as municipal separate storm sewer systems (MS4s). Stormwater discharge permits can be referred to as MS4 permits.

Atlanta's Performance Criteria

- Risk mitigation
- Regulatory compliance
- Operational efficiency
- Durability/resiliency
- Sustainability initiatives
- Visibility
- Safety and reliability

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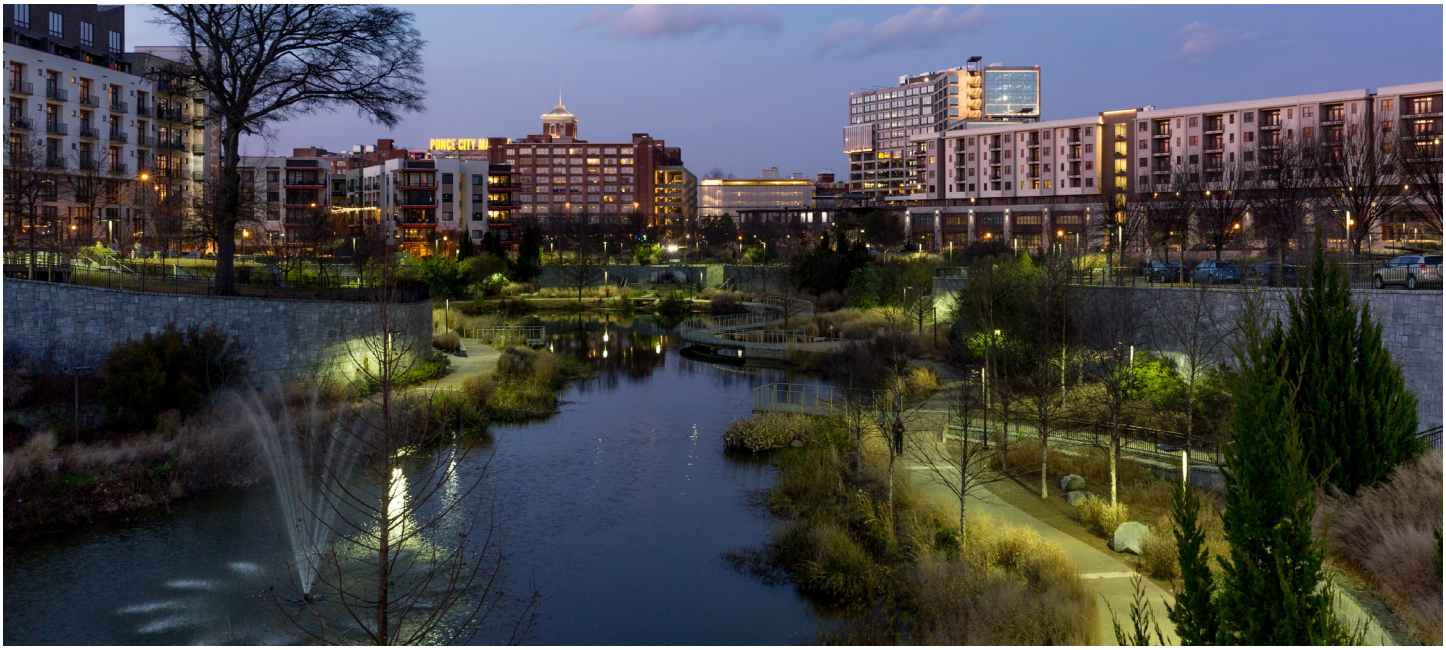
In 2015, Atlanta began an integrated planning process to meet permit requirements and reduce the use of its remote partial treatment facilities. The city developed a process for identifying projects that would reduce runoff volumes and pollutant loadings, then evaluated these projects based on cost (i.e., whether they were possible under available funding) and how well they met performance criteria (see box above). Atlanta's final integrated plan did not identify specific projects but rather committed to pursue projects through the proposed evaluation and selection process that protect the environment, support economic development, and improve quality of life as priorities for implementation.

Results

The Georgia Department of Natural Resources approved the *Integrated Plan for the City of Atlanta* in 2019. Using the project selection process outlined in the integrated plan, the city designed the Rodney Cook Sr. Park, a green infrastructure project designed to alleviate flooding by capturing and storing up to 10 million gallons of stormwater using rain gardens, stormwater planters, and constructed wetlands. The plan called for this project to be completed in 2020, and to date it has helped mitigate CSOs.

Historic Fourth Ward Park at night.
Photo courtesy of HDR.



For more information, visit EPA's integrated planning Report to Congress webpage at:
https://www.epa.gov/npdes/integrated-planning-municipal-stormwater-and-wastewater

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