

ADDRESSING NEIGHBORHOOD FLOODING WITH GREEN INFRASTRUCTURE

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In July 2012, several neighborhoods in southeast Atlanta experienced catastrophic flooding after a 10-yr and 25-yr storm event occurred within a three-day period. Atlanta Mayor Kasim Reed met residents who were affected by these storms to assure them that appropriate action would be taken to make long-term infrastructure improvements. The Peoplestown, Summerhill, and Mechanicsville neighborhoods are served by the City's combined sewer system that drains the heart of Atlanta, including the Capitol, I-20 and the Downtown Connector, and Turner Field. In an effort to increase combined sewer capacity in this highly urbanized watershed, the City of Atlanta implemented a strategy which utilized both gray and green infrastructure. To date, a 5.9M gallon storage vault adjacent to Turner Field and 7 bioretention cells have been constructed. In addition, four miles of permeable paver roadways in combination with stormwater planters have been installed throughout the watershed to delay peak flow rates and remove a certain portion of stormwater runoff from entering the combined sewer system. This is the largest application of retrofitted roadways using permeable pavers known. This presentation will highlight the steps leading up to construction and lessons learned throughout the first year, including design hurdles, aging infrastructure, sedimentation, and community outreach. Learn how this regional green infrastructure approach has improved drainage while providing an aesthetically pleasing solution for the community. Future phases of the Southeast Atlanta Green Infrastructure Initiative (SAGII) will be discussed, including additional paver roadways, large-scale bioretention, garden-themed stormwater retention ponds, and potential retrofit incentives to promote the use of green roofs within the combined sewer area.

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