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**GREEN INFRASTRUCTURE AS A CSO SOLUTION IN DETROIT, MICHIGAN**

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**ABSTRACT:** Detroit Water and Sewerage Department (DWSD) is utilizing green infrastructure technology as part of its combined sewer program for a section of the City of Detroit tributary to the Rouge River. DWSD in partnership with the Southeast Michigan Council of Governments (SEMCOG) completed an analysis estimating a 10-20 percent reduction in stormwater flows by implementing five techniques: 1) tree planting in underutilized parks and along streets, 2) demolition of abandoned homes and greening vacant property, 3) greening municipally-owned property, 4) green infrastructure along roadways, and 5) downspout disconnection. Implementation of this program began spring 2011. The strategy for implementation coordinates with other Detroit programs, including the Detroit Works project which is focused on right-sizing the City based on current population. Detroit Water and Sewerage System built the sewer system based on a population of 2 million people. This population is now under 750,000. Another benefit of right-sizing is reducing costs to the rate-payers of the system. Early stages of this program include implementation as part of stabilizing neighborhoods through techniques including as demolitions, greening vacant property, and street tree planting. As part of right-sizing the City and infrastructure, large-scale green infrastructure techniques such as roadway projects, stormwater forests, and community gardens/urban farming are being planned. The presentation will include a discussion on: \*The modeling programs utilized to estimate volume reduction and measure progress. \*The process being developed to implement and coordinate the five techniques through various departments, nonprofit organizations, environmental groups, and the regulatory agency. \*The short-term implementation strategy focused on meeting multiple city objectives, including neighborhood stabilization and engagement. \*The long-term implementation strategy focused on large-scale greening focused on volume control and quality of life. \*The importance of public education, engagement and publicity in implementing the program.

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