UPDATE OF THE STORMWATER MASTER PLAN OF MIAMI-DADE COUNTY FOR CURRENT AND FUTURE CONDITIONS

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For more than 25 years, Miami-Dade County has developed and provided continuous updates of the SWMP. Since the initial numerical hydraulic and hydrologic stormwater modeling in 1993, the SWMP underwent modifications and improvements completed in 2005, 2009 and 2020. The improvements incorporated mitigation and redevelopment projects that have addressed historical surface water drainage challenges, hydraulic, hydrologic, and regulatory changes within the county. The most recent update completed in 2020 includes eleven watershed H&H models which cover approximately 780 square miles of inland and coastal land within and adjacent to Miami-Dade County. The updated watershed models incorporate the hydrologic and hydraulic factors impacting the urban areas of Miami-Dade County for the current conditions and for potential future Sea Level Changes. The watershed numerical models were used to analyze the most current and forecasted data available for population growth, topography, SLR scenarios, land use, groundwater levels, and rainfall volume and intensity. In addition to the hydraulic and hydrologic analysis completed to determine runoff rates and drainage system performance, peak flood geospatial mapping was applied to determine the maximum flood depths. A series of alternative model simulations were developed in sequential manner to analyze strategies for stormwater improvements, mitigation of remaining repetitive losses, and addressing climate change potential impacts. The models were additionally used to update the County Flood Criteria and the Water Control Maps which establish minimum canal bank, road and parcel elevation. This update is critical for the long-term sustainability and resiliency of Miami-Dade County's civil infrastructure.

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