2022 Data FEWSion abstract

Enhancing the Resilience of Houston’s Wastewater System Under Wet Weather Using Emerging Technologies

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Increasing wet weather events due to climate change, are affecting municipal water systems. The events of hurricane Harvey caused major flooding and failure of Houston’s wastewater systems. This project will look at modeling the implementation of moving bed biofilm reactors (MBBR) and membrane aerated biofilm reactors (MABR) as alternatives to primary treatment under wet weather events throughout the various wastewater systems of Houston. The expected outcome is to have increased removal efficiency showing an increase in resilience and to pinpoint specific treatment facilities that could best make use of new technologies.