

AHED Water Quality Tool Development in SFWMD

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Paper Abstract

Total Maximum Daily Loads (TMDL) process establishes the allowable loadings of pollutants or other quantifiable parameters for a water body, based on the relationship between pollution sources and in-stream water quality conditions. It is important to create a tool that can provide accurate water quality load data within the environmentally sensitive South Florida region. The Arc Hydro Enterprise Database (AHED) project offers an opportunity to integrate hydraulic data, water quality data and hydrographic data in order to efficiently display computed loads to receiving water bodies with TMDL constraints in a geographical context. Three monitoring stations (S165, S133, S31) representing discharges from three basins, two impaired water bodies and two parameters, Total Phosphorous (TP) and Total Iron (TI), have been implemented in the Water Quality Tool pilot project. The completed tool will be able to monitor compliance with TMDL for receiving bodies of water under the District's jurisdiction, and to create data reports and to help make operational decisions about discharges affecting receiving water bodies.