

## **SOUTH BROWARD DRAINAGE DISTRICT GREEN INFRASTRUCTURE PROJECTS AND CLIMATE CHANGE IMPACTS**

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South Broward Drainage District (SBDD) is an independent, drainage district located in SW Broward County, Florida. With a jurisdictional area of over 72 square miles, SBDD is the largest single-purpose drainage district in the County.

SBDD continues to see the impacts of climate change and sea level rise on its operations, especially during periods of king tide events. These impacts are starting to become more prevalent and more severe. Although SBDD's eastern boundary is located 7.7 miles from the Atlantic coast, the District is seeing fluctuations in tail water conditions that mimic the coastal, tidal fluctuations, and limit SBDD's ability to discharge water through its gravity gates. These impacts were evident during the 2020 rainy season when SBDD experienced record rainfall, including Tropical Storm Eta when significant portions of SBDD experienced a 100-year rainfall event.

Over the past 10 years, SBDD has completed several successful green infrastructure projects including the following:

- Installation of by-pass sluice gates at all seven (7) of SBDD's stormwater pump stations with a reduction to-date of 8,935 hours of diesel-engine run time, \$264,666 in costs, and 813 tons in CO2 emissions.
- Conversions of narrow ditches to grass swales.
- Construction of new grass swales for improved drainage.
- Construction of a "green" retaining wall at one of SBDD's sluice gates.
- Installation of solar panels on SBDD's maintenance garage expansion.
- District-wide initiatives to improve water quality and educate the public.

**PRESENTER BIO:** Kevin M. Hart is the District Director of the South Broward Drainage District with over 40 years of civil engineering experience in South Florida. He is a graduate of Virginia Tech (1981); a professional engineer in the State of Florida; and a Certified Floodplain Manager.