

## RESILIENCY AND ADAPTATION IN THE NATIONS OLDEST CITY

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The City of St. Augustine (COSA) was one of the three communities involved in the Community Resiliency Initiative Pilot Projects administered through the Florida Department of Economic Opportunity and funded by NOAA. The objectives of this effort were:

Assess community vulnerability to projected increases in coastal flooding, June 2016.

Develop adaptation strategies to improve resilience to the associated impacts, May 2017.

These two documents provided a much of the background information contained in the 2019 Perils of Flood Appendix to the Conservation and Coastal Management (CCM) Element. COSA also created a Stormwater Utility (1993), Master Plan (1995) and Update (2013), and has numerous ongoing stormwater projects.

The Vulnerability Assessment determined that nuisance flooding has the largest potential to impact COSA in the near term. Present-day areas subject to nuisance flooding are expected to be flooded almost daily by tides with 1.5 ft. of SLR, which could occur between 2040 and 2100, depending on the degree of acceleration. Funding for tide check valves to deal with nuisance flooding is provided through the COSA ten-year capital improvement program and is cost shared with agencies such as the St. Johns River Water Management District. The tide check valve program has been very successful, as 31 valves have been installed as of October, 2019. The remaining 72 drainage outfalls are being evaluated and will be prioritized by the end of 2019.

The current flooding level as a result of the 1% annual chance flood was estimated to be 6.9 ft. in the Vulnerability Assessment. Under this flood condition, a significant portion of downtown St. Augustine and Davis Shores floods. In addition, flood levels resulting from Hurricanes Matthew, Irma and Dorian were in the 7.0 ft., 6.0 ft. and 5.0 ft. range, respectively. Projects are currently being designed and built to protect areas of the City up to the 7.0 ft. elevation.

**PRESENTER BIO:** Michael G. Cullum, P.E., is Director of Public Works and Chief Resilience Officer, City of St. Augustine. He worked 25 years for the St. Johns River Water Management District as Chief of Engineering and Hydro Science and Director of Engineering. He has a B.S. in Chemistry and Master of Engineering, from the University of Florida.