

**To:** Port St Lucie City Council

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**Date:** June 3, 2025

**Subject:** SLC Regional Resilience Vulnerability Assessment Final Report & Sensitivity Analysis

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This memorandum provides technical information regarding the St Lucie County Regional Resilience Vulnerability Assessment (RVA) Final Report scheduled for inclusion on the City's June 9, 2025 agenda. In reference to the RVA, the following outlines additional details related to the sensitivity analysis in response to the frequently observed flooding located at 1) Walton Road and 2) the intersection of California Blvd. and Savona Blvd in Port St Lucie, as identified during discussions with Port St Lucie council members during the April 21, 2025 Workshop.

In accordance with the Resilient Florida Program outlined in Section 380.093 Florida Statute (F.S.) Tetra Tech has completed the St Lucie County RVA analysis based on local geographic and asset data and provides an overview of various rainfall, sea level rise, storm surge, high tide, and combination flooding scenarios for the 2040, 2070 and 2100 planning horizon.

In addition, Tetra Tech performed a sensitivity analysis to identify the critical assets most at risk. The prioritization methodology was coordinated with the St. Lucie Resilience Steering Committee and Port St Lucie staff during development. The sensitive analysis includes four indexes - the horizon index, flood type index, flood depth index, and asset criticality index, with varying weight assignments. From the indexes the composite vulnerability score is determined which then corresponds to the critical asset prioritization.

Based on the sensitivity analysis performed, both roadways identified by council members show high vulnerability to flooding in the Prioritized Critical Asset List. The sensitivity analysis is compliant with 380.093 F.S. and will be shared when finalized with our partner cities as well as being transmitted to the Florida Department of Environmental Protection per grant agreement 22PLN22.

Completion of this 380.093 F.S. compliant RVA and identification of these roadways as having a high vulnerability to flooding within the Prioritized Critical Asset list provides the technical assurance to support future grant applications.