



Sea-Level Rise
Challenges, Planning & Responses

EST. 1565

ST. AUGUSTINE™

CELEBRATING 450 YEARS

Commission Meeting – February 27, 2017

Outline

Background

**Common
Tidal
Flooding**

**SLR
Vulnerability
Analysis**



Common Tidal Flooding in St. Augustine



Photos taken in October 2014 during a Nor'easter



Common Tidal Flooding in St. Augustine



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Common Tidal Flooding in St. Augustine



Photos taken in October 2014 during a Nor'easter

FDEO Coastal Vulnerability Assessment

Used three flood hazard types for assessment (NAVD88):

- Mean Higher High Water (MHHW) @ 2-ft
- Nuisance Flooding @ 3.75-ft
- 1% Flood @ 6-10-ft

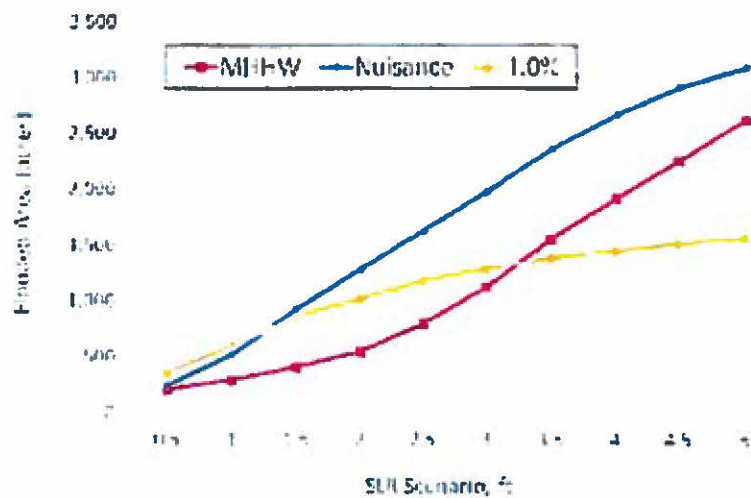


Figure 2. Changes in flooded area by flood type. Note rapid growth of nuisance flood areas, which is shared by MHHW after 2 ft of SLR. The 1% annual chance floodplain experiences slow growth after 1.5 ft of SLR.



How much more flooding is expected? Tipping points?



FDEO Coastal Vulnerability Assessment

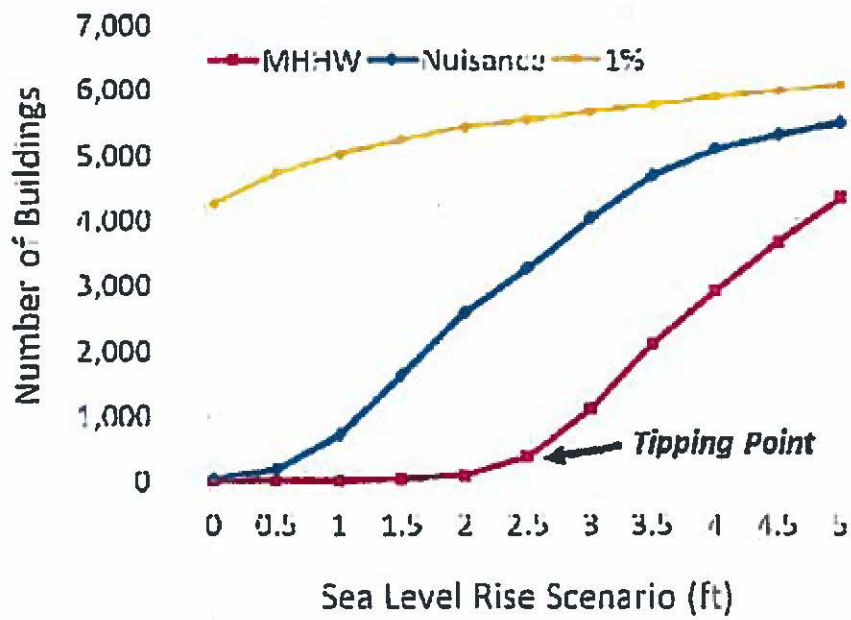


Figure 14. Number of buildings (commercial, residential and municipal) affected by MHHW, nuisance, and the 1% flood level in each SLR scenario.



How will building vulnerability to flooding change?



FDEO Coastal Vulnerability Assessment

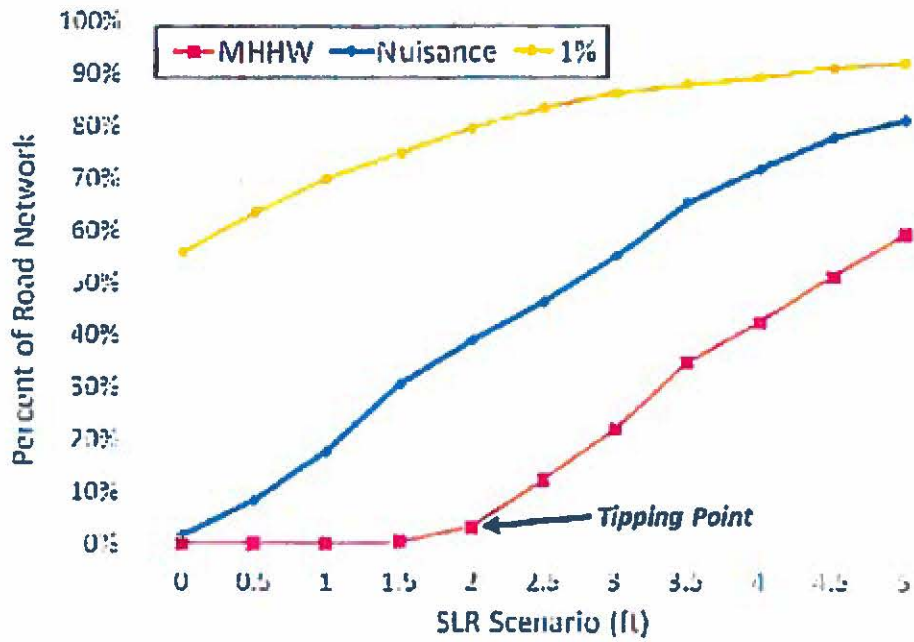


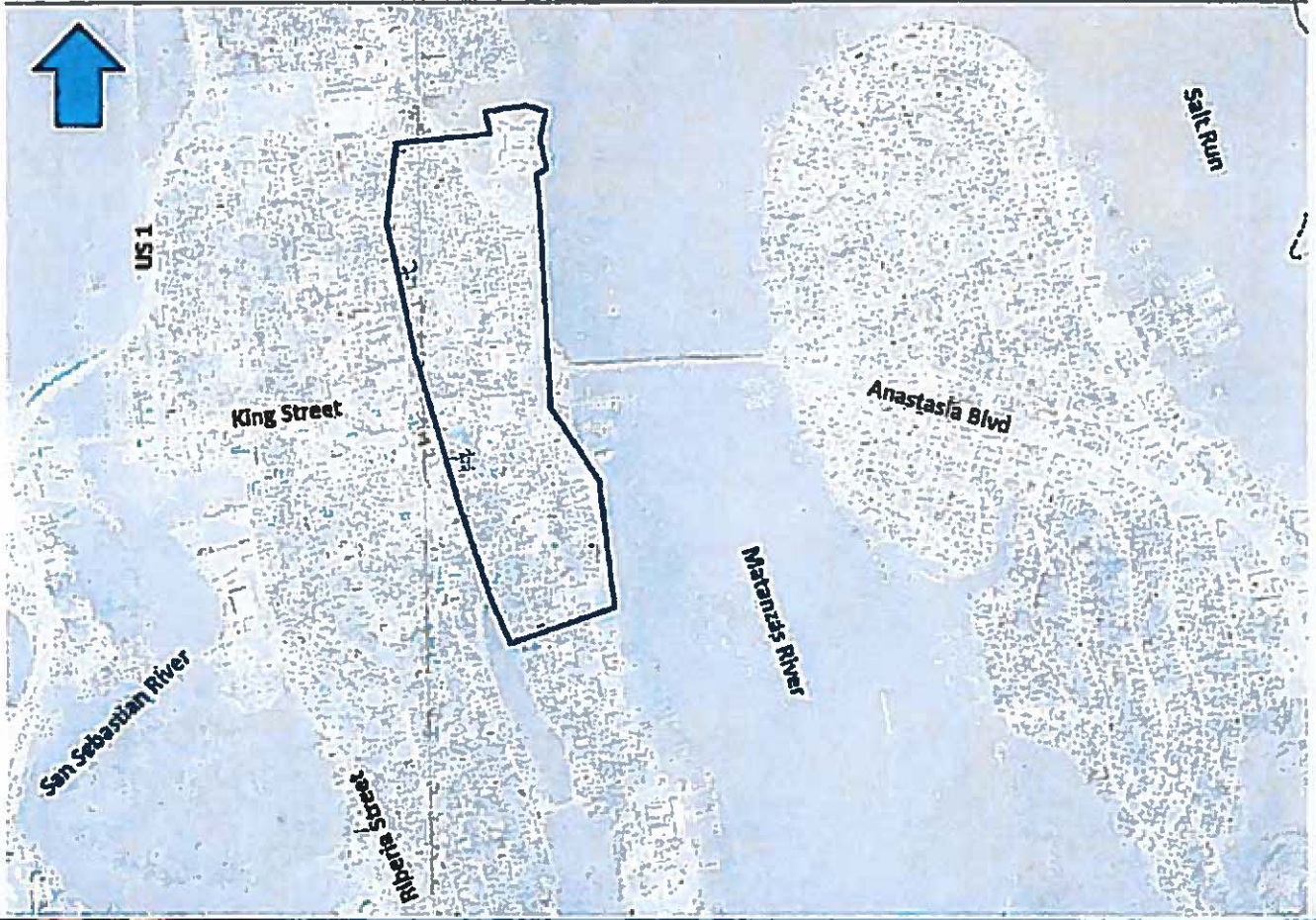
Figure 9. Percent of road network affected by MHHW, nuisance, and the 1% flood level for each SLR increment.



How will road vulnerability to flooding change?



St. Augustine



St. Augustine



0-ft SLR: NUISANCE MHHW

A legend bar with a blue background. It contains two colored squares: a yellow square above the text "0-ft SLR: NUISANCE" and a blue square above the text "MHHW". To the right of the text is a small icon of a building with a red roof. The text "0-ft SLR: NUISANCE" is in white, and "MHHW" is in white.

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1-ft SLR: NUISANCE

MHHW



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3-ft SLR: NUISANCE

MHHW





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Reference

Coastal Vulnerability Assessment:
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Discussion / Questions

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THANK YOU!



