

Roadway Vulnerability Assessment

Transportation & Public Works Committee

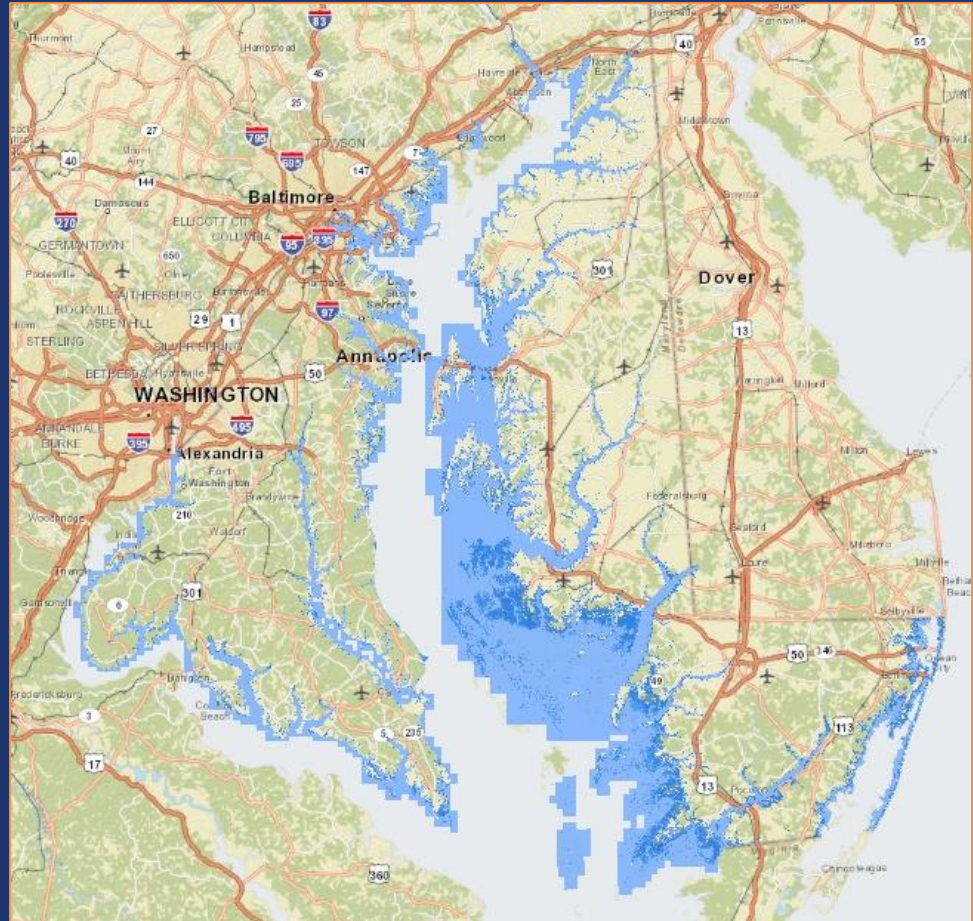
June 11, 2018

2050 & 2100 Sea Level Change

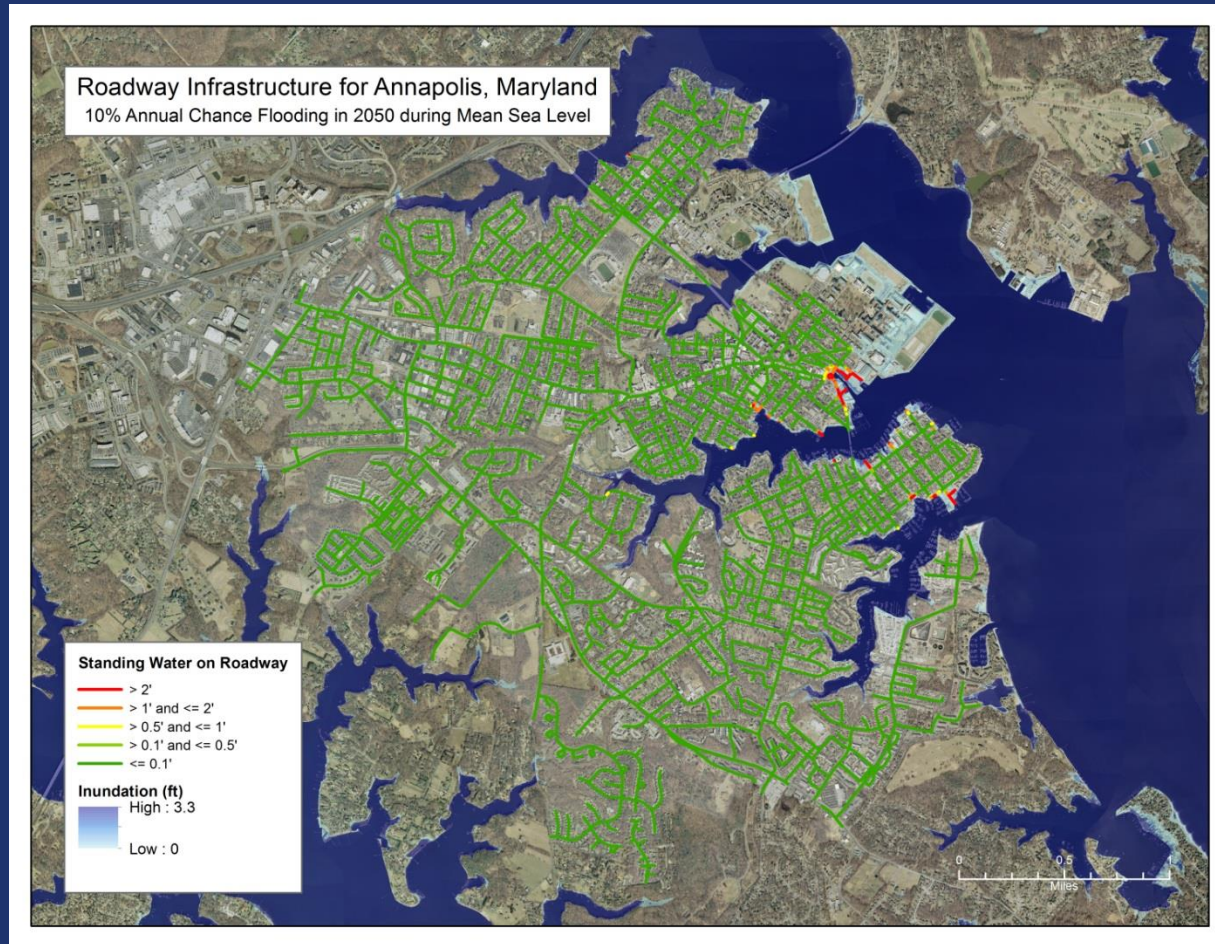
Eastern Shore Regional GIS Cooperative – Salisbury University

County	Tidal Station	2050		2100	
		MSL	MHHW	MSL	MHHW
Allegany	None	-	-	-	-
Anne Arundel	Annapolis	2.08	2.79	5.7	6.41
Baltimore	Baltimore	2.01	2.87	5.59	6.45
Baltimore City	Baltimore	2.01	2.87	5.59	6.45
Solomons	Island	2.1	2.82	5.76	6.48
Calvert	Island	2.1	2.82	5.76	6.48
Caroline	Cambridge	2.11	3.13	5.78	6.8
Carroll	None	-	-	-	-
Cecil	Chesapeake City	1.98	3.63	5.56	7.21
Charles	Washington DC	2.21	3.83	5.78	7.4
Dorchester	Cambridge	2.11	3.13	5.78	6.8
Frederick	None	-	-	-	-
Garrett	None	-	-	-	-
Harford	Baltimore	2.01	2.87	5.59	6.45
Howard	None	-	-	-	-
Kent	Annapolis	2.08	2.79	5.7	6.41
Montgomery	None	-	-	-	-
Prince Georges	Washington DC	2.21	3.83	5.78	7.4
Queen Annes	Annapolis	2.08	2.79	5.7	6.41
Somerset	Cambridge	2.11	3.13	5.78	6.8
Solomons	Island	2.1	2.82	5.76	6.48
Talbot	Cambridge	2.11	3.13	5.78	6.8
Washington	None	-	-	-	-
Wicomico	Cambridge	2.11	3.13	5.78	6.8
Worcester	Ocean City	2.06	3.25	5.86	7.05

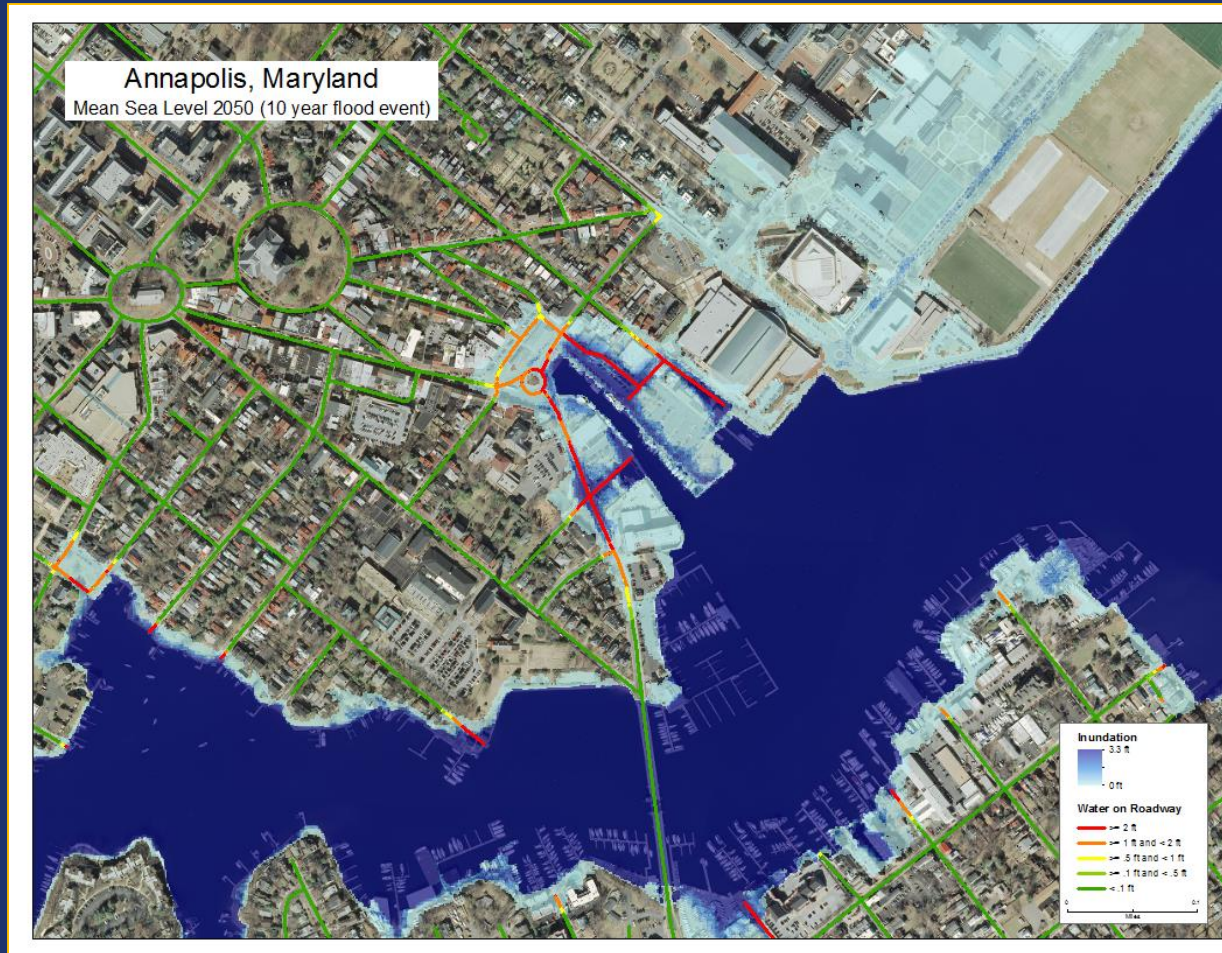
Methodology – USACE: Sea-Level Change Considerations for Civil Works Programs, October 2013



Sea Level Change 2050 with 10-yr Storm Annapolis

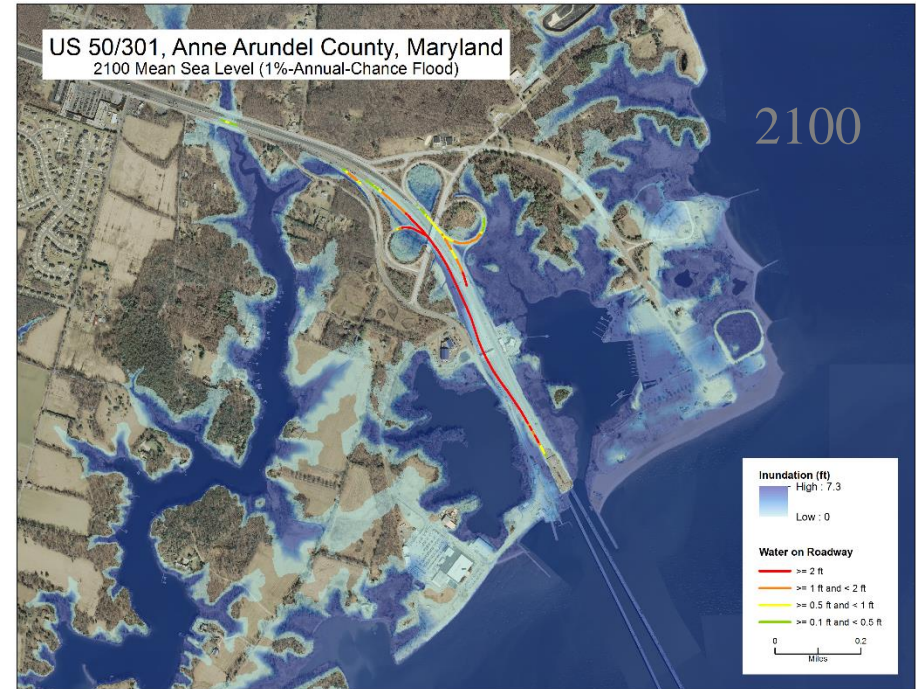
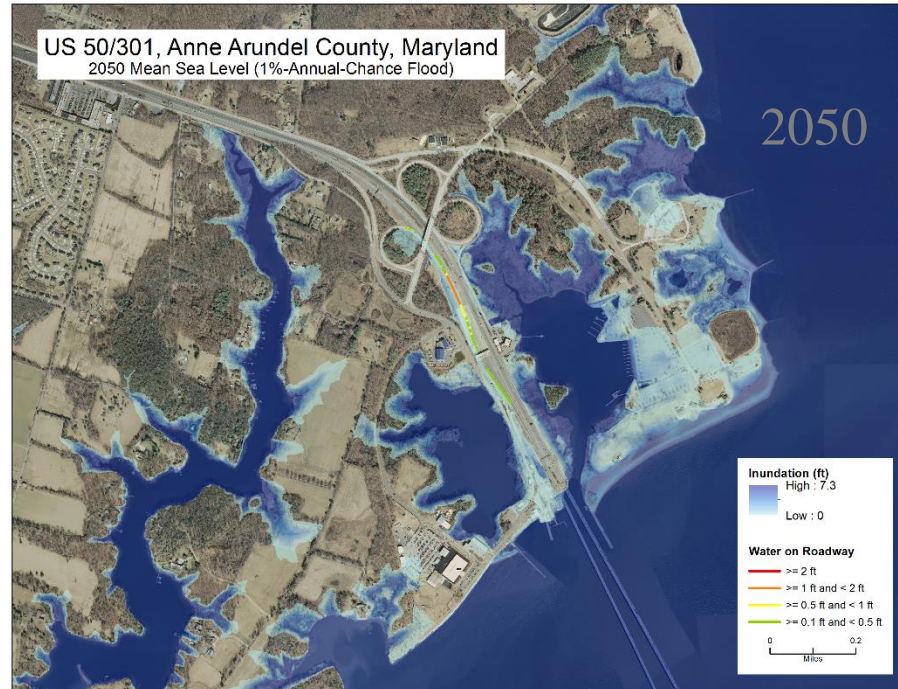


Sea Level Change 2050 with 10-yr Storm Annapolis



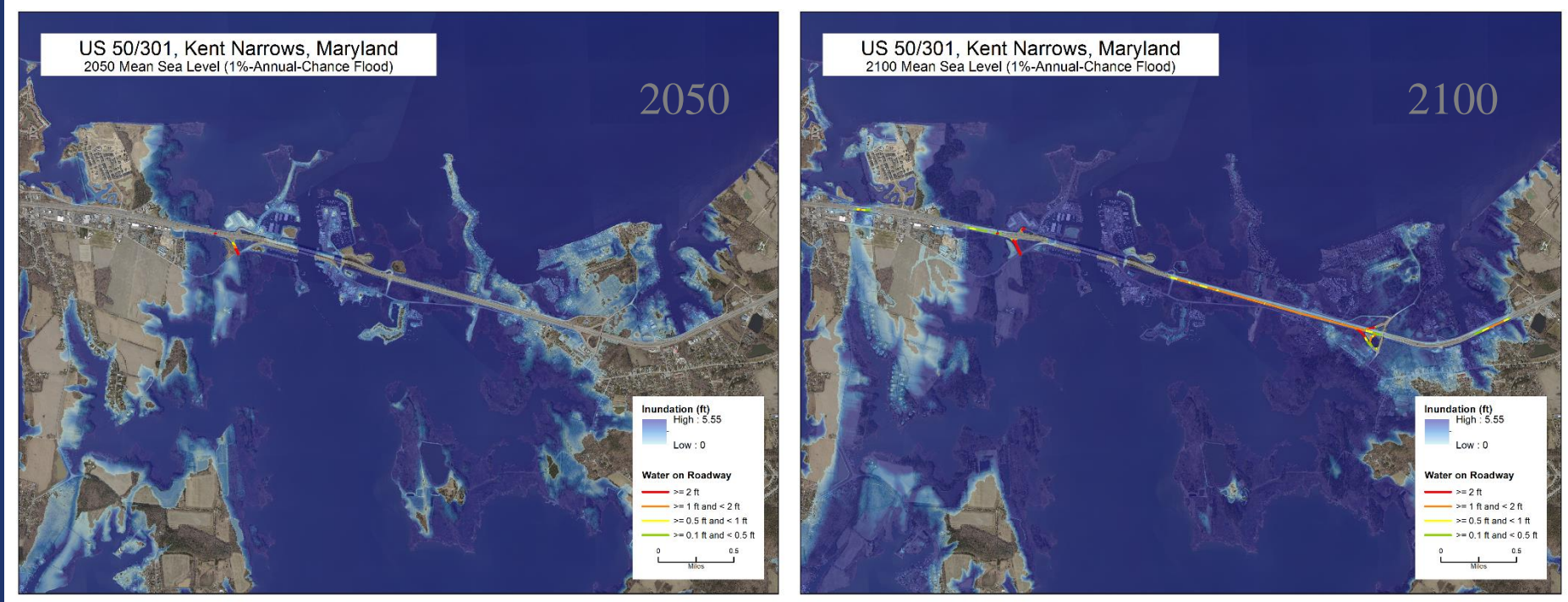
100-Year Storm in 2050 & 2100

Bay Bridge

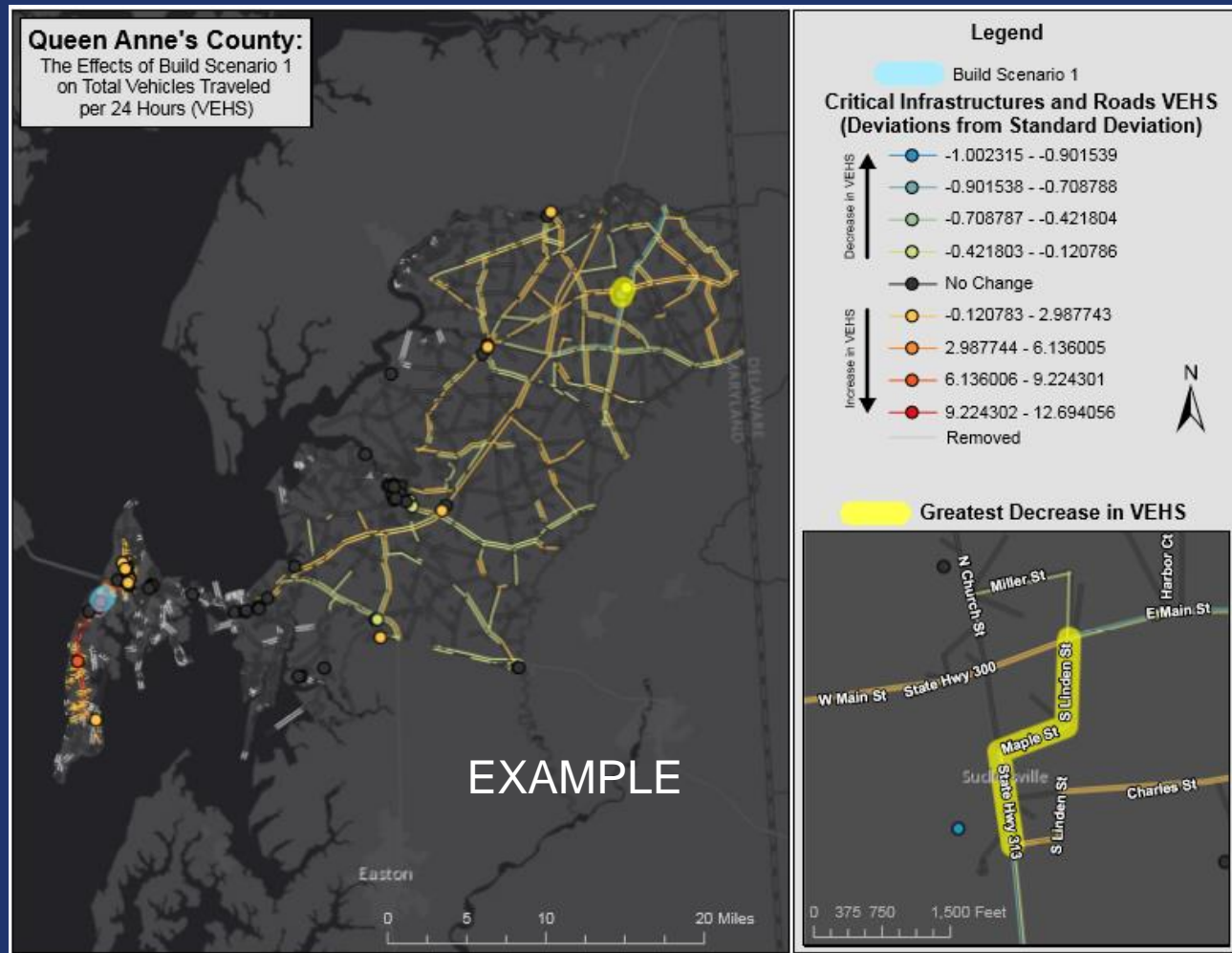


100-Year Storm in 2050 & 2100

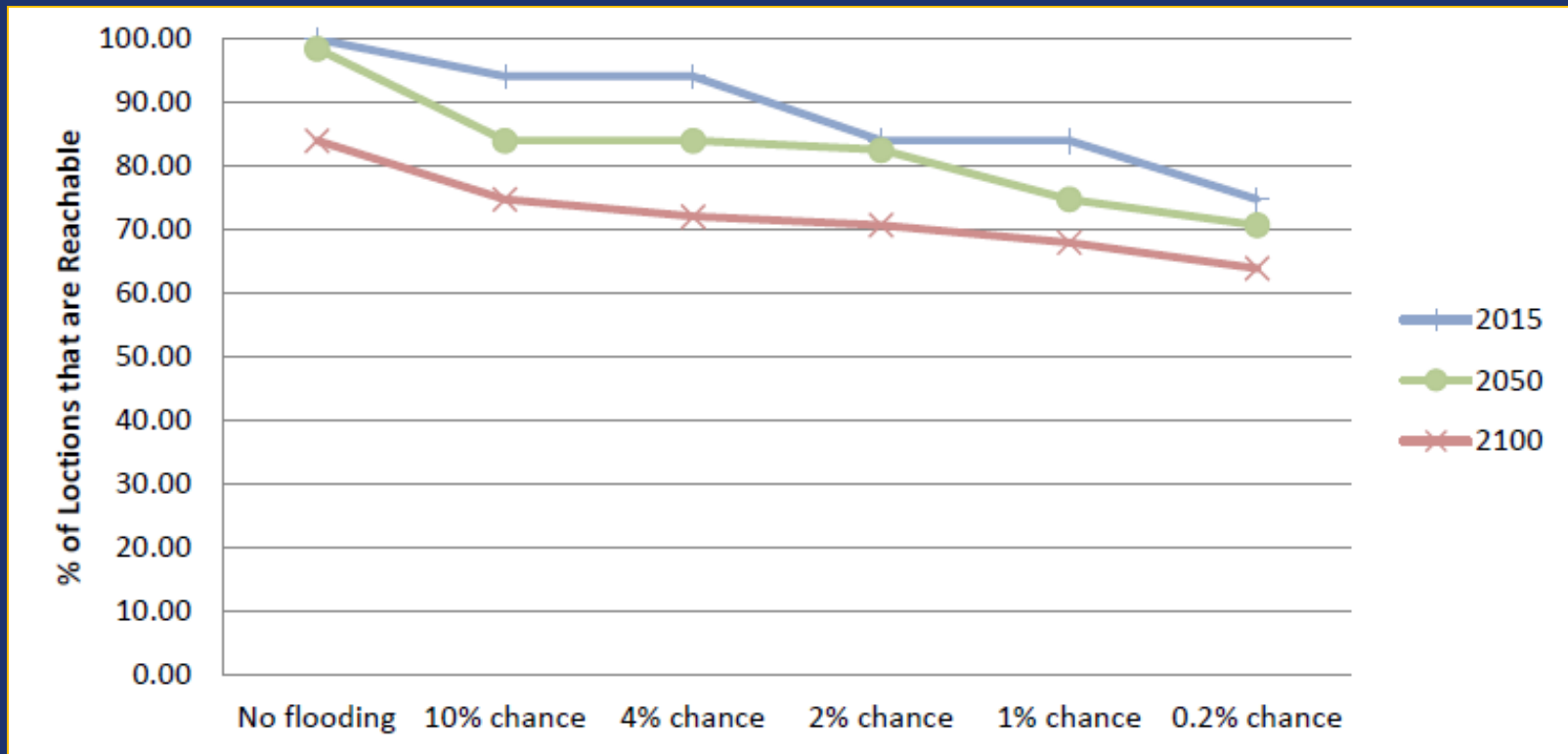
Kent Narrows



Evaluation of High Scoring HVI Road Segments



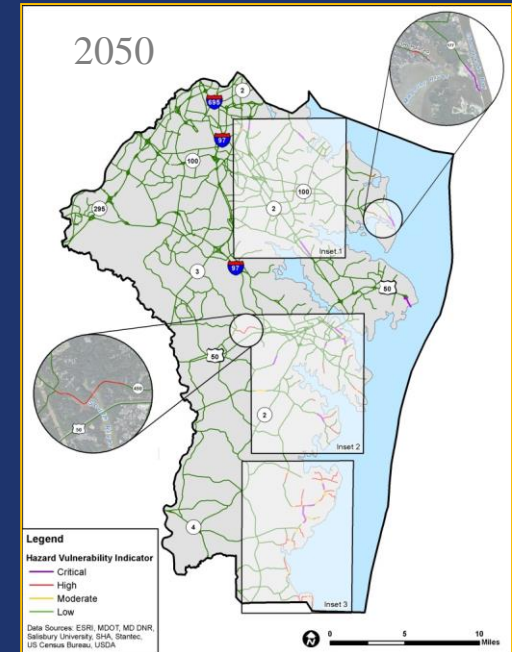
Percentage of Traversable Trace Paths in AA County with MSL SLC



Asset Management, Extreme Weather, and Proxy Indicators Pilot 2017

MDOT SHA Objectives

- Develop proxy indicators to identify and address extreme weather and climate-related risks to Maryland's critical assets
- Integrate climate-related risks and data into the TAMP processes
- Develop and modify existing lifecycle management plans to reflect climate-related data and risks
- Document the new processes



The purpose of MDOT SHA's proposed project for this pilot is to develop and integrate a repeatable framework for leveraging current and future extreme weather and climate change data with the transportation asset management processes currently in place

Questions

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Climate Change Adaptation Plan with Detailed Vulnerability
Assessment, October 2014

https://www.fhwa.dot.gov/environment/sustainability/resilience/pilots/2013-2015_pilots/maryland/final_report/index.cfm