

Item #8: Virginia Beach Sea Level Rise Final Report

Regional Environmental Committee

September 4, 2014

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Background

- VCZMP Grant project with HRPDC and Virginia Beach
- Three deliverables:
 - Policy Review
 - Sea Level Rise/Flooding Inundation Maps
 - Public Engagement Strategy
- Changes since last meeting:
 - Split first section into two
 - Recommendations
 - New Maps



Developing a Local Sea Level Rise Adaptation Plan for Virginia Beach



PEP14-02 | September 2014
Grant #NA11NOS4190122 | Task 57

Recommendations

- **Code, Policy, and Program Review**

1. Virginia Beach should continue exploring these policy options, such as more stringent floodplain management regulations and participation in the Community Rating System.
2. Virginia Beach should continue working with local, regional, state, and national partners, both government and non-government, to incorporate sea level rise into local plans and policies.

- **National Case Studies**

1. Virginia Beach should consider mandating or encouraging vulnerability and adaptation assessments as part of its development review process.
2. Virginia Beach should consider preparing a separate climate change element for its comprehensive plan.
3. Virginia Beach should consider incorporating sea level rise into its infrastructure planning framework.

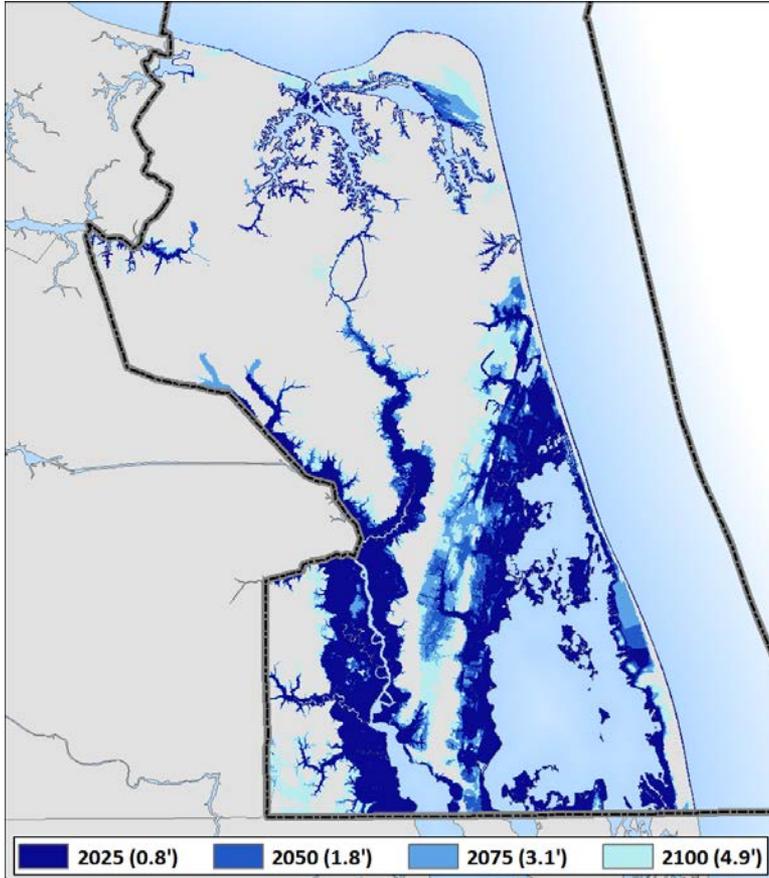
Recommendations

- **Critical Infrastructure Inventory**
 - Virginia Beach should use this infrastructure classification system to inform its hazard mitigation planning efforts.
 - Virginia Beach should identify critical infrastructure that is vulnerable to flooding and sea level rise and assess those facilities for potential adaptation measures.
- **Outreach and Engagement Strategy**
 - Virginia Beach should begin implementing these engagement strategies to coincide with the upcoming update to its comprehensive plan.
- **Mapping Sea Level Rise and Storm Surge**
 - Virginia Beach should consider using these maps as part of its public outreach efforts.
 - Virginia Beach should consider incorporating these maps into its comprehensive plan update and capital improvements program.
 - The Hampton Roads Planning District Commission should use these methodologies to create regional sea level rise and storm surge inundation maps.

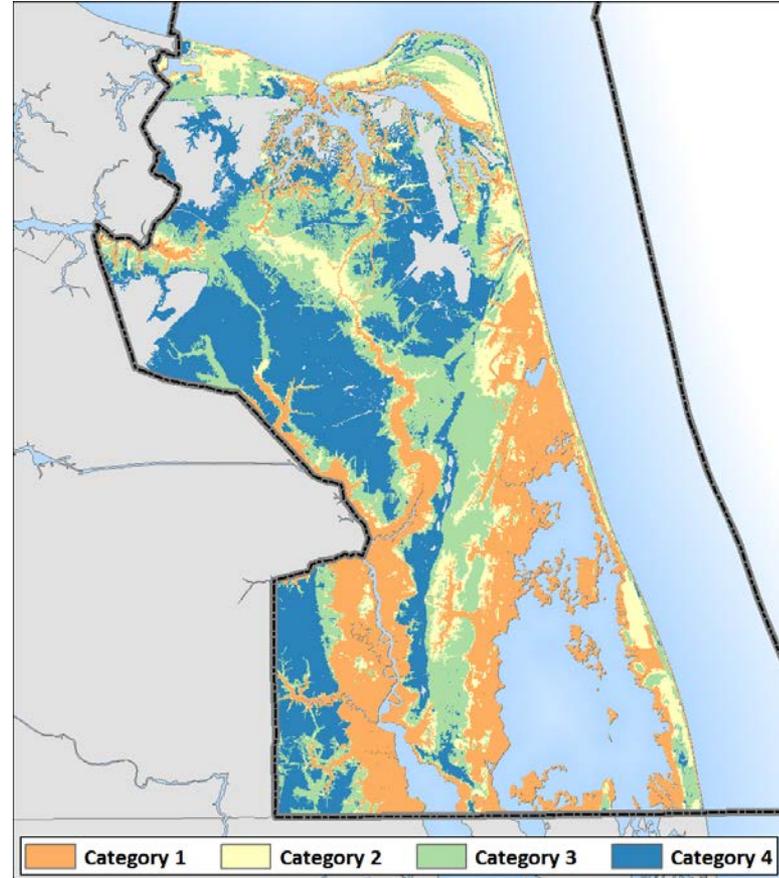
Maps

- Three groups
 - Sea Level Rise Vulnerability
 - Storm Surge Vulnerability by Year (Categories 1-4)
 - Storm Surge Vulnerability by Category over time

Maps

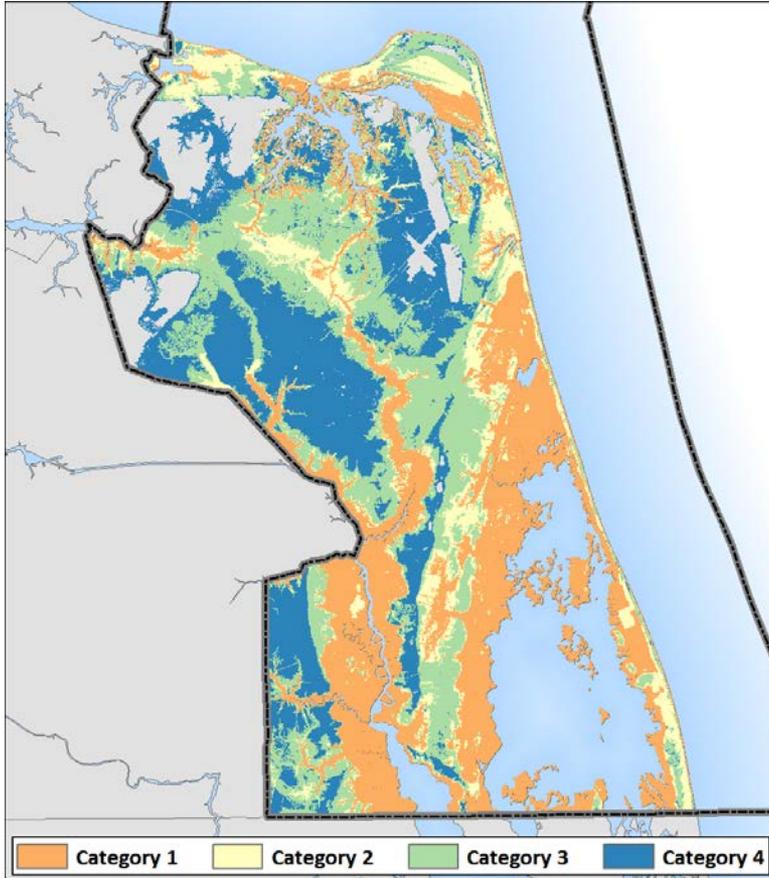


Areas Vulnerable to Sea Level Rise

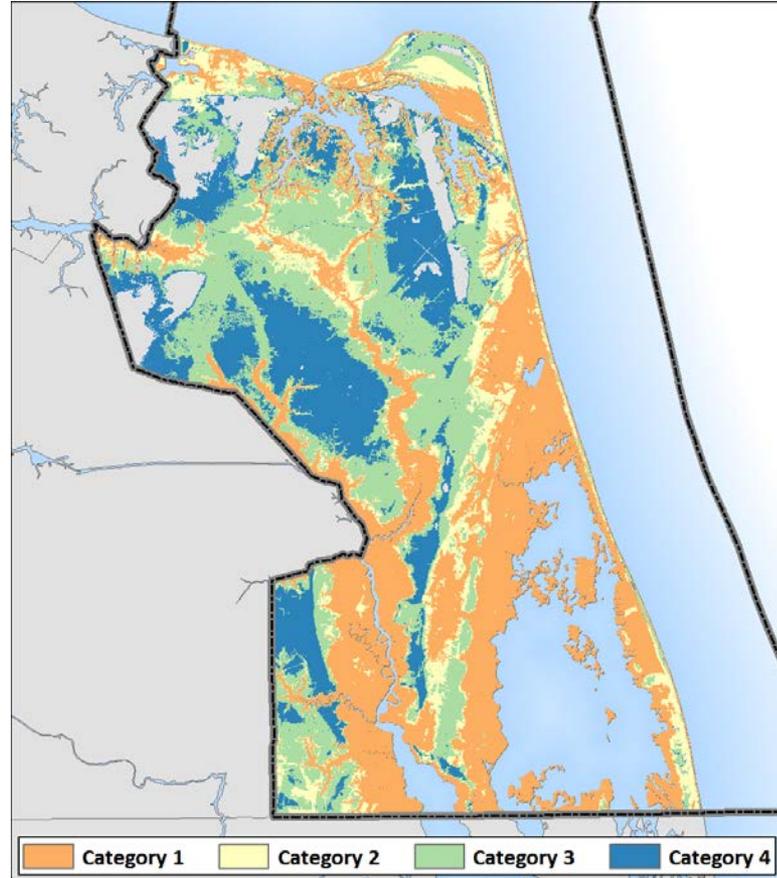


Areas Vulnerable to Storm Surge, Present

Maps

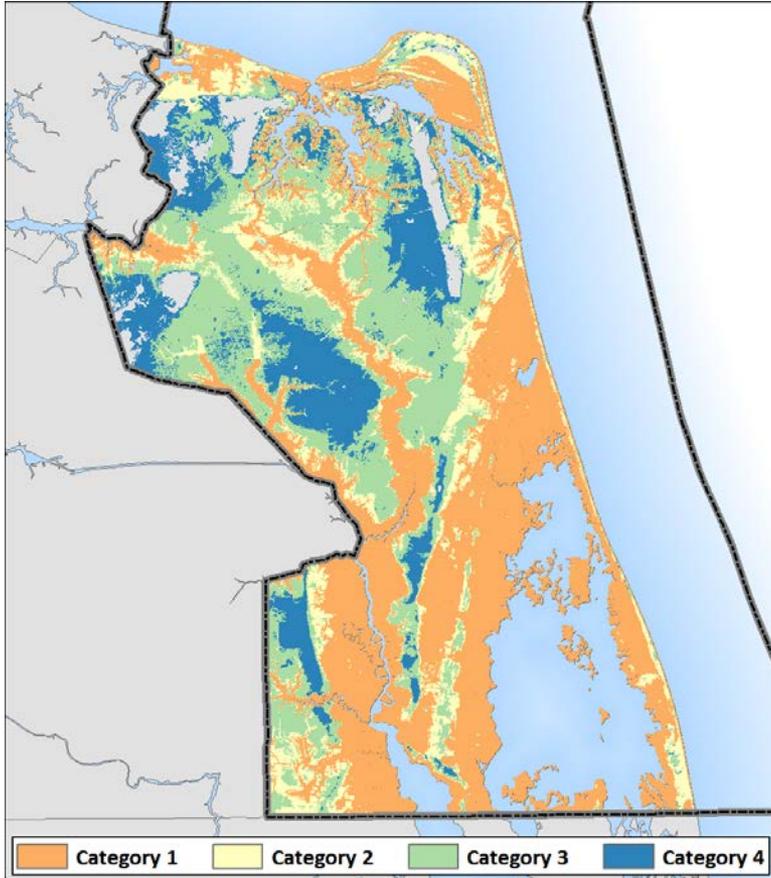


Areas Vulnerable to Storm Surge, 2025

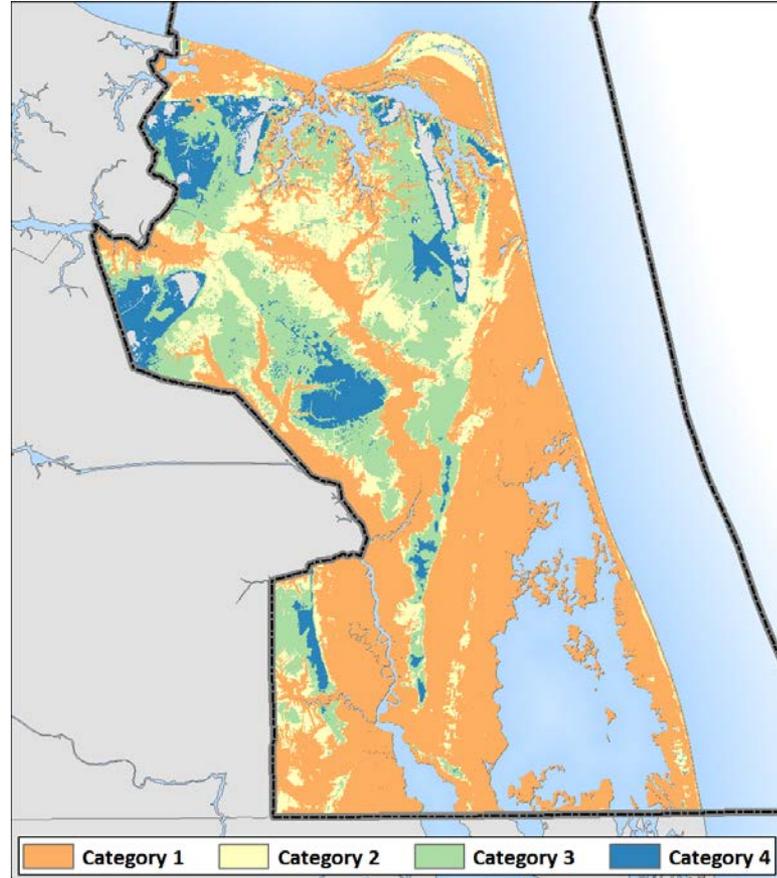


Areas Vulnerable to Storm Surge, 2050

Maps

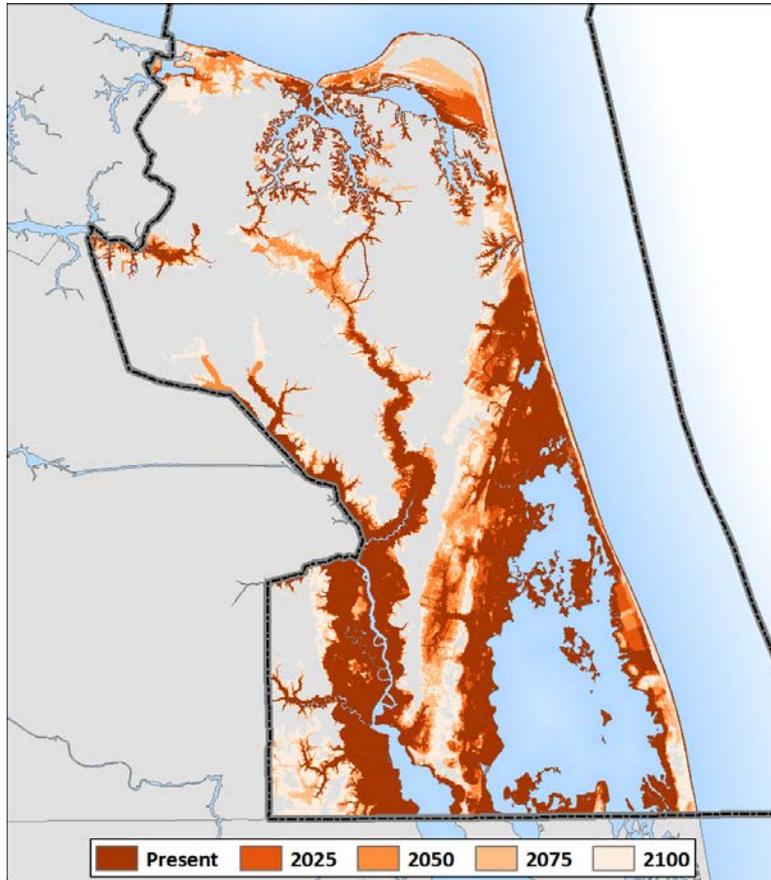


Areas Vulnerable to Storm Surge, 2075

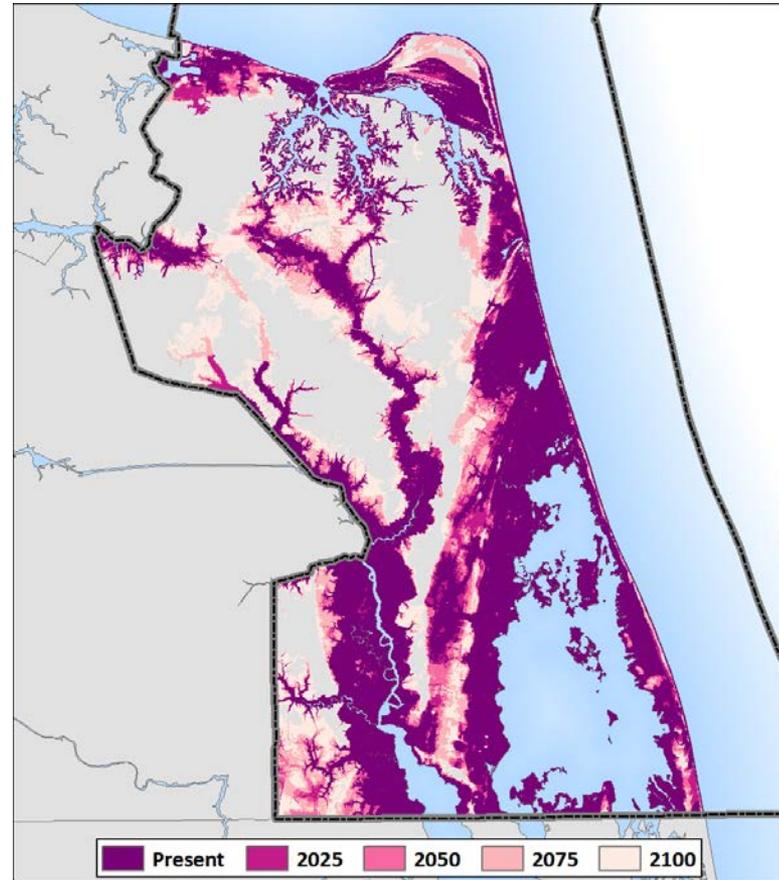


Areas Vulnerable to Storm Surge, 2100

Maps

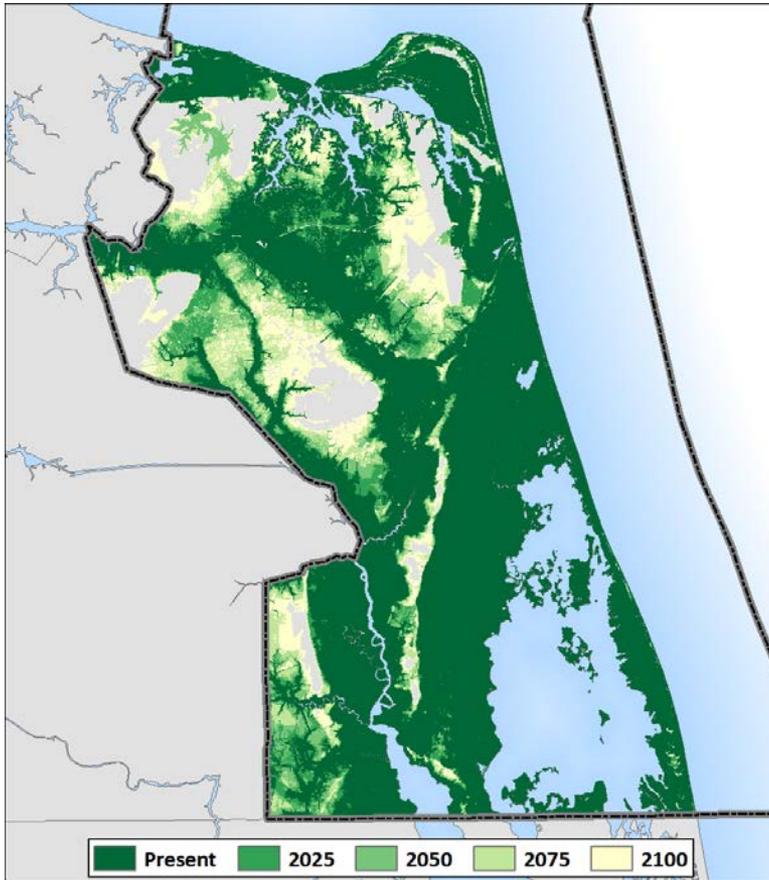


Areas Vulnerable to Category 1 Storm Surge, Present-2100

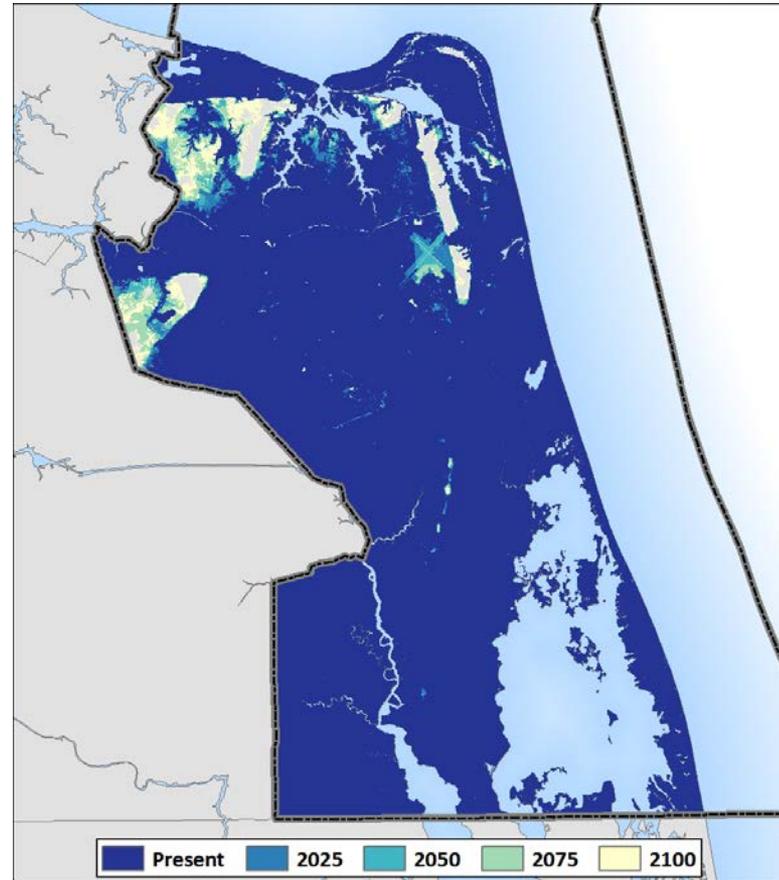


Areas Vulnerable to Category 2 Storm Surge, Present-2100

Maps



Areas Vulnerable to Category 3 Storm Surge, Present-2100



Areas Vulnerable to Category 4 Storm Surge, Present-2100

Next Steps

- Option 1:
 - Vote on recommendation to the Commission (to approve the report for distribution) today.
- Option 2:
 - Vote on recommendation to the Commission at the October 2 meeting. Comments on the report would be due to HRPDC staff no later than COB September 19.