# Dipping our Toes in Rising Waters

Preparing Florida for the Future

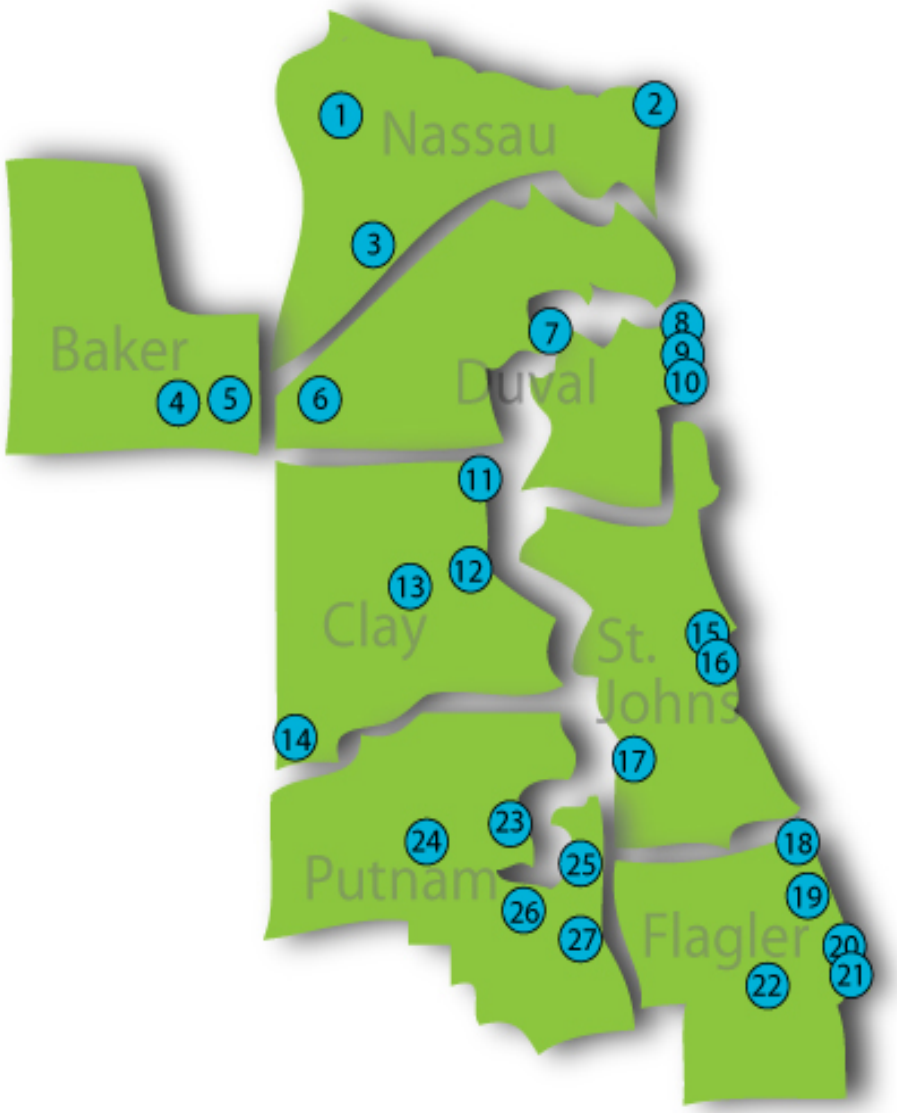
Opportunities for Resilience in Local Communities

Northeast Florida Update

January 28, 2015

Northeast Florida Regional Council

# Northeast Florida: 2 Navy Bases, 2 Deep Water Ports, Historic Sites




## 7 Counties and 27 Municipalities

1. Hilliard
2. Fernandina Beach
3. Callahan
4. Glen St. Mary
5. Macclenny
6. Baldwin
7. Jacksonville
8. Atlantic Beach
9. Neptune Beach
10. Jacksonville Beach
11. Orange Park
12. Green Cove Springs
13. Penney Farms
14. Keystone Heights
15. St. Augustine
16. St. Augustine Beach
17. Hastings
18. Marineland
19. Palm Coast
20. Beverly Beach
21. Flagler Beach
22. Bunnell
23. Palatka
24. Interlachen
25. Pomona Park
26. Welaka
27. Crescent City

# Who we are and how we work

- The Northeast Florida Regional Council (NEFRC) unites Baker, Clay, Duval, Flagler, Nassau, Putnam and St. Johns Counties.
- NEFRC has run a Regional Leadership Academy since 2006. Graduates become members of the non-profit "Policy Think Tank": Regional Community Institute (RCI).
- 2008-11: RCI volunteers do First Coast Vision, action item: climate change. Call for input on Climate Change.
- 2012-13: Regional Action Plan for Sea Level Rise.
- 2013-14: Regional Action Plan for Thriving Small Business.
- Each was proposed by RCI and adopted as NEFRC policy without change.

# Policy Work: Sea Level Rise

- "The Northeast Florida Regional Council asks the Regional Community Institute of Northeast Florida, Inc. to consider Sea Level Rise and its potential to impact Northeast Florida. If they determine our Region is vulnerable, we ask them to determine working assumptions for level of rise and planning timeframe, to assist local governments in assessing their resiliency, and to recommend regional strategies if they believe it appropriate."

Motion of NEFRC, August 2012

# Relative Sea Level Change Scenarios for Mayport, FL (feet)

| Year | USACE NOAA Low | USACE Int. NOAA Int-Low (Mod. NRC Curve I) | NOAA Intermediate High | USACE High (Mod. NRC Curve III) | NOAA High | National Climate Assessment Draft Jan. 2013 |
|---|---|---|---|---|---|---|
| SLR Scenario | Local Historic SLR | Global SLR +0.5m by 2100 | Global SLR +1.2m by 2100 | Global SLR +1.5m by 2100 | Global SLR +2.0m by 2100 | Global SLR +0.3m to +1.2m |
| 1992 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 2010 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | |
| 2060 | 0.5 | 0.9 | 1.8 | 2.2 | 2.9 | |
| 2100 | 0.8 | 1.8 | 4.1 | 5.1 | 6.8 | 1.0 to 4.1 |
| 2110 | 0.9 | 2.1 | 5.6 | 6.0 | 8.0 | |

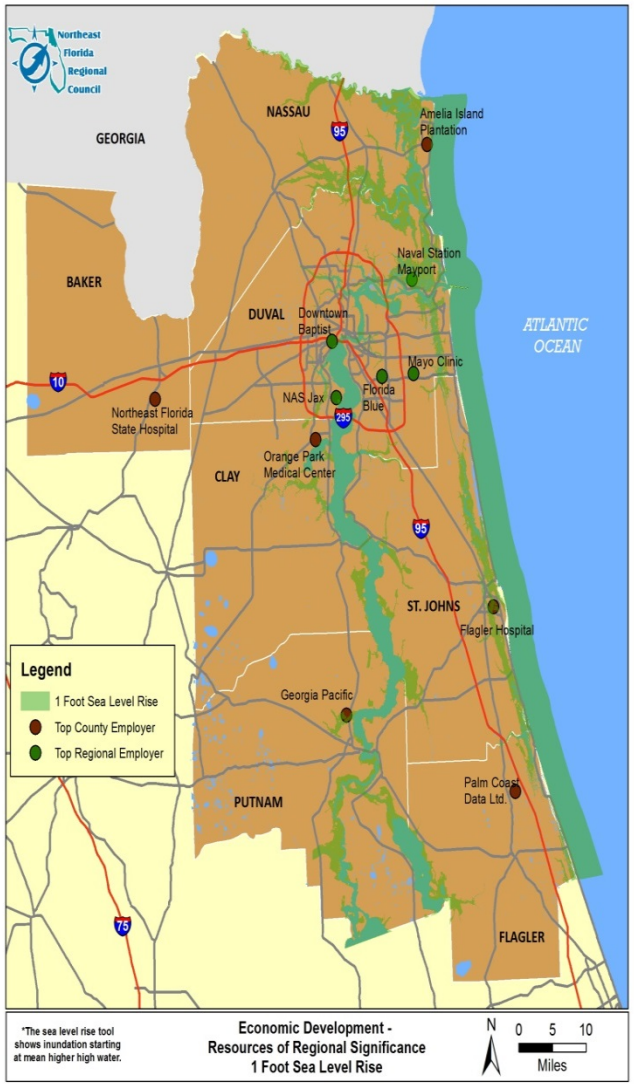
Notes: USACE projections are for historic, modified NRC Curve I and modified NRC Curve III rates of sea level change developed for Northeast Florida per USACE Engineering Circular (EC) 1165-2-212. This EC is based on guidance in the National Research Council (NRC) report, *Responding to Changes in Sea Level; Engineering Implications* dated September, 1987. The projections are developed using the historic rate of sea level rise at Mayport as reported by NOAA (2.29 mm/yr). NOAA projections use the same EC equations modified for different global SLR scenarios. The NRC, USACE and NOAA guidance documents do not address dates beyond 2100. All projections start from 1992 control for the national survey datum per EC 1165-2-212. NOAA guidance:
http://cpo.noaa.gov/Home/Home/AllNews/TabId/315/ArtMID/668/ArticleID/80/Global-Sea-Level-Rise-Scenarios-for-the-United-States-National-Climate-Assessment.aspx
National Climate Assessment, Draft Report for Public Review, Jan 2013: http://ncadac.globalchange.gov/

# We <u>are</u> vulnerable. Assumptions:

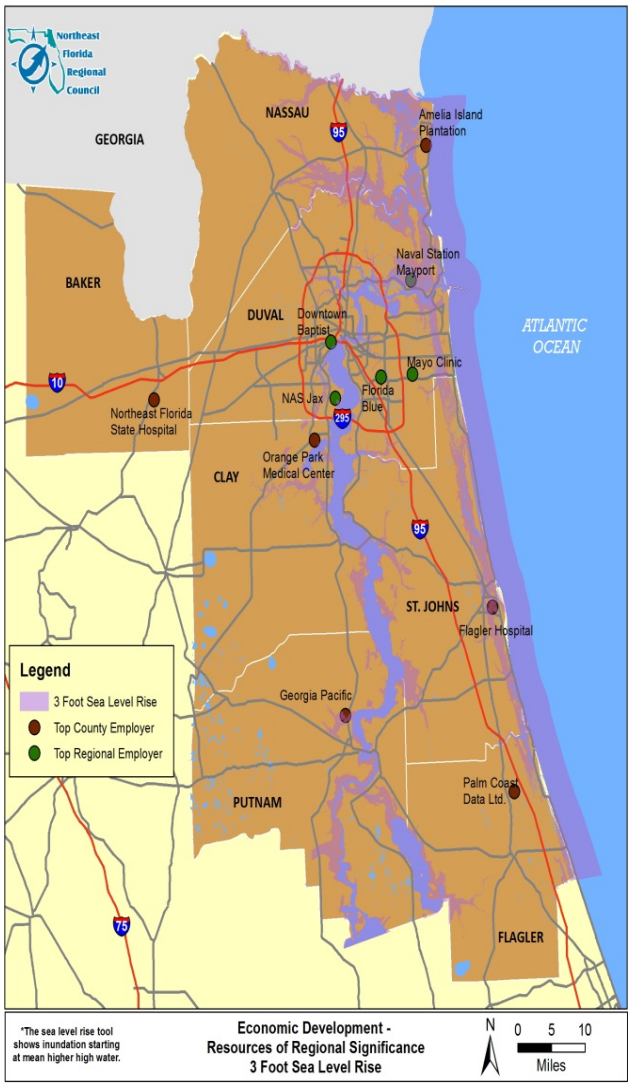
- 1’-3’ by 2060 (3’ to match GTM NERR Study)
- 3’-6’ by 2110
- Probability of 6’ is low, worst case
- Using the most simple NOAA coverage
- Start the conversation
- Use vulnerability review and input from nine Community Resiliency Assessments to identify policies for Regional Action Plan

# Vulnerability: Economic Development

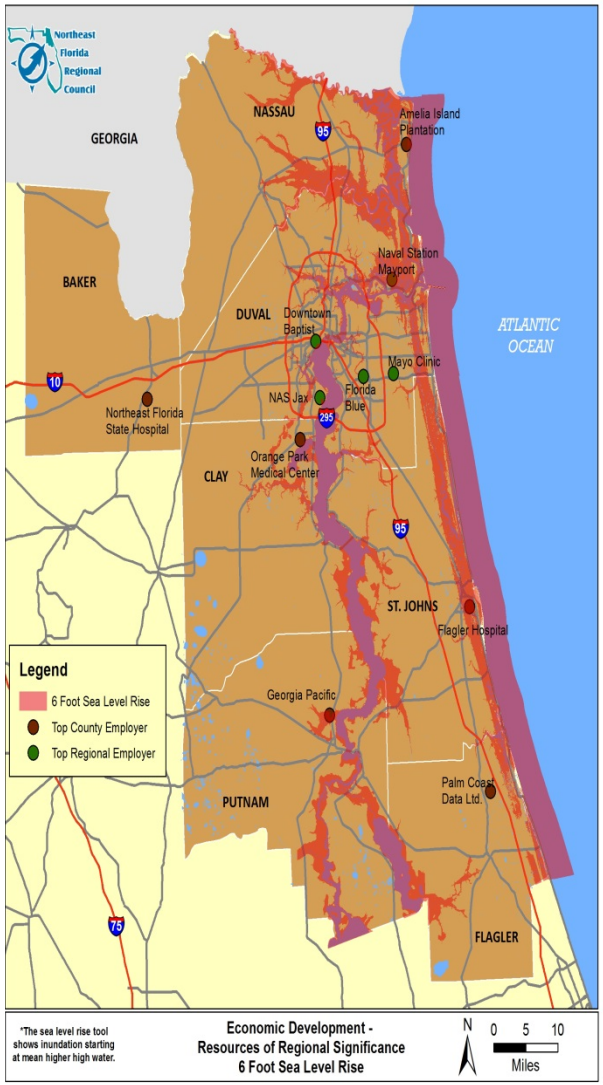
## One Foot




## Three Feet

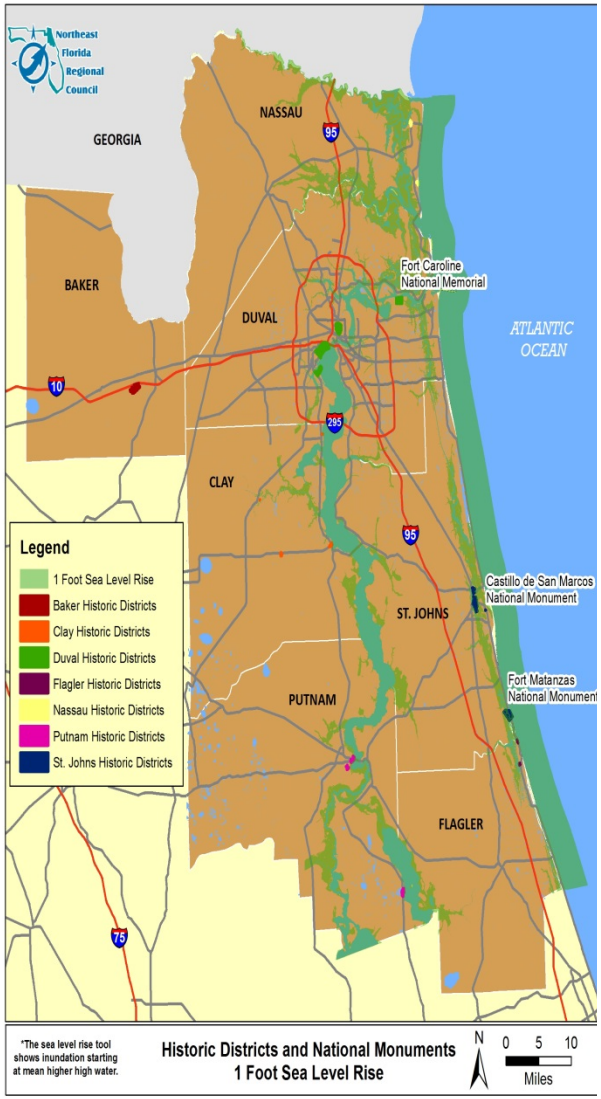



## Six Feet



# Vulnerability: National Monuments

## One Foot

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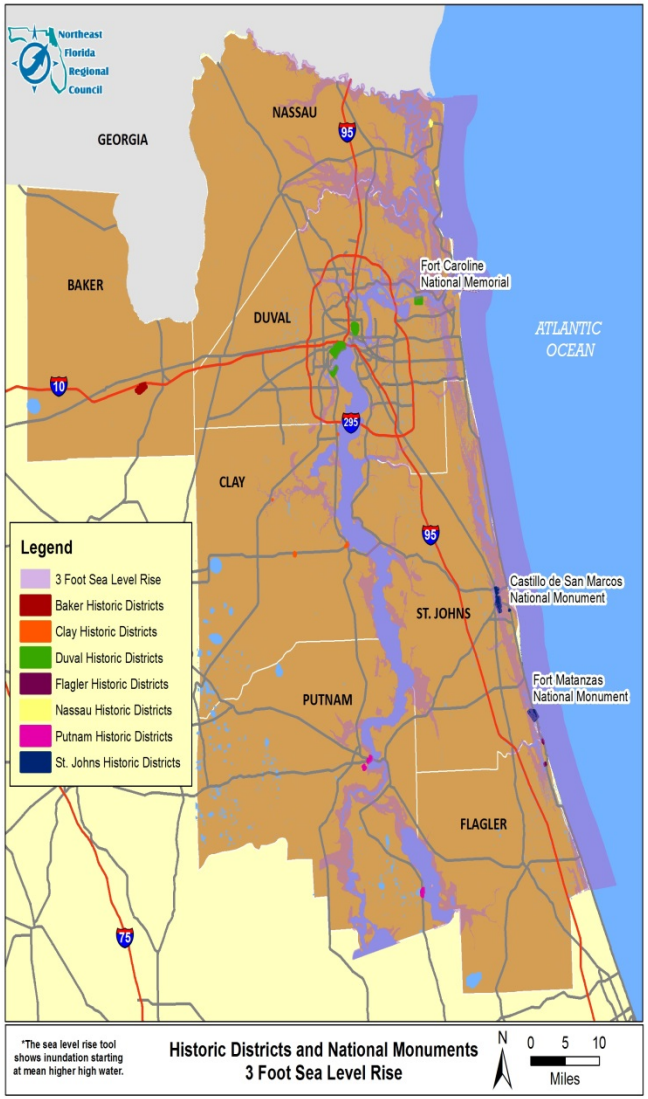


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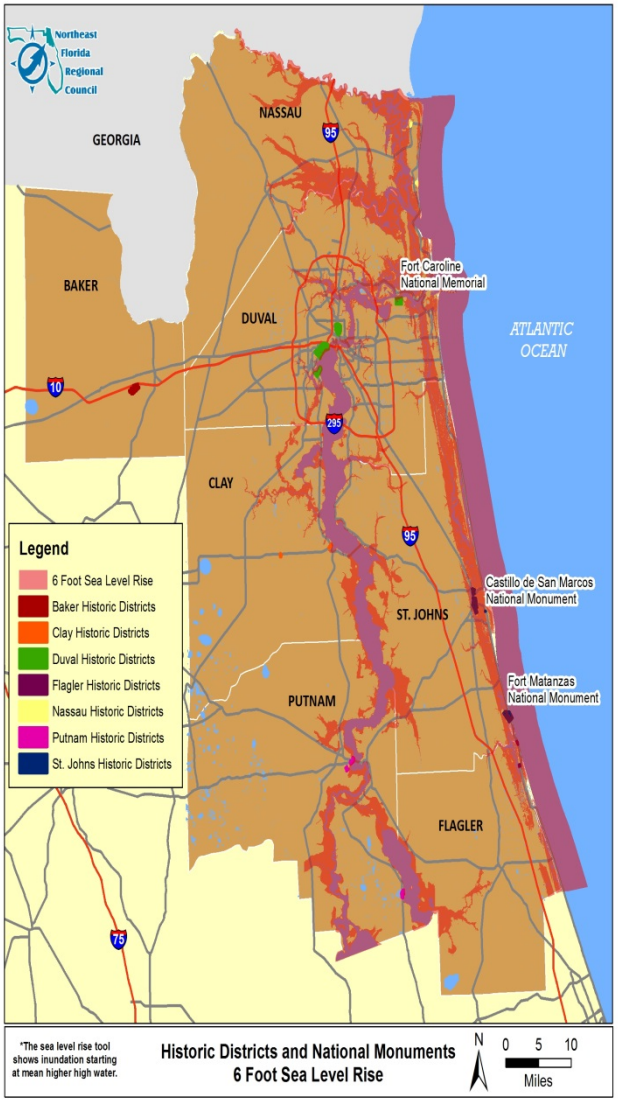
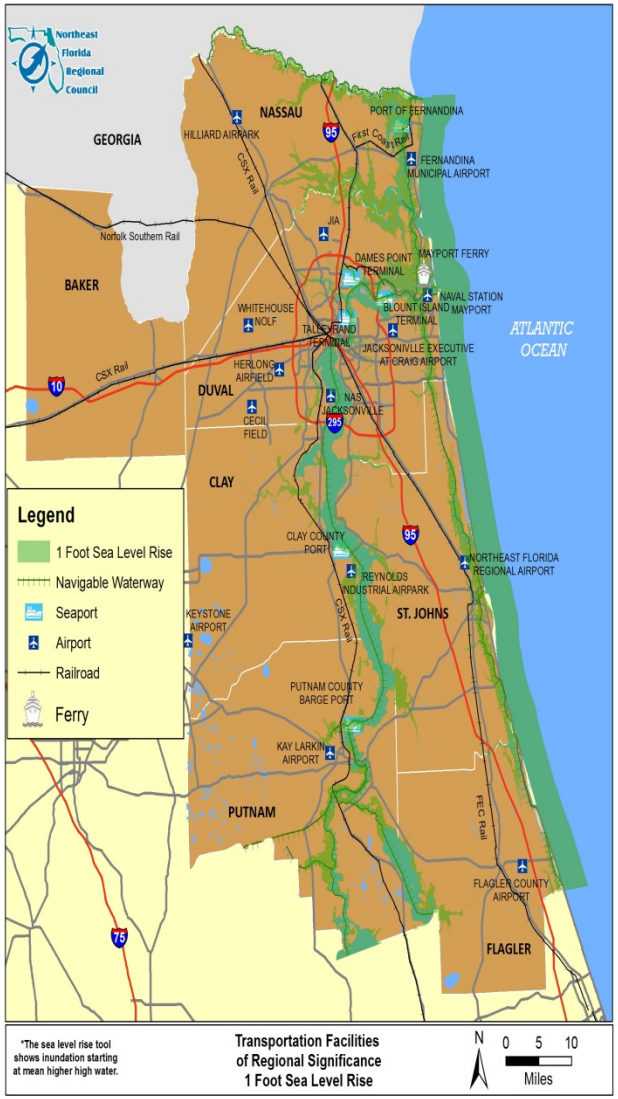


# Vulnerability: Transportation

## One Foot

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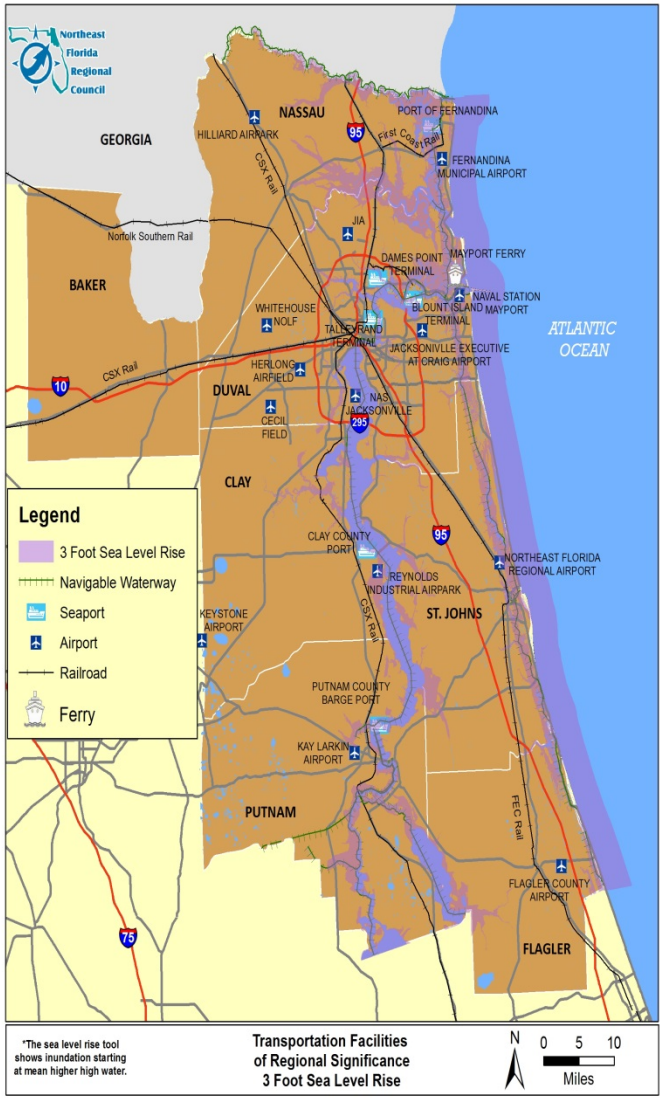


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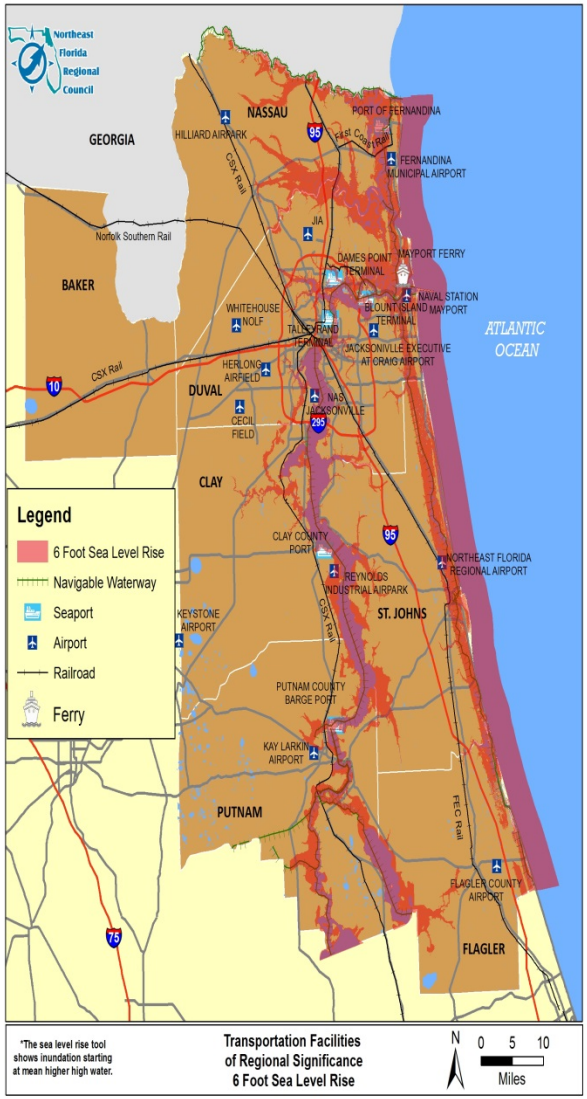

# The Importance of “Doable”

RCI Regional Action Plans include:

- Only doable recommendations
- Learning from others
- The input of ‘smart people in a room’
- Action to be accomplished at the regional level
- Using partnerships and volunteers (although funding would be nice)
- Strategies will align with emerging State/Federal initiatives
- Implementation that does not wait for those initiatives

# Regional ACTION Plan on Sea Level Rise

- Create a Clearinghouse on Understanding Risk
- Engage the Community
- Save Money
  - CRS and Infrastructure Cost/Benefit
- Collaborate and Leverage Success
- Engage the Business Sector in Long Term Resiliency

# Our Focus: Collaboration in Implementation

- With GTM NERR/UF Study on Matanzas Basin
- With North Florida Land Trust
- With local governments on resiliency to flooding
- With the private sector

P2R2

Public/Private Regional Resiliency

## Northeast Florida

# Private Real Estate Investment Vulnerability

| Impact Area | % of Parcels | Private Parcels | Private Acres | Private Value |
|---|---|---|---|---|
| Storm Surge 1-5 | 31.2% | 247,000 | 398,000 | $25.4B |
| 1' Sea Rise | 3.9% | 31,000 | 48,000 | $1.6B |
| 3' Sea Rise | 5.9% | 47,000 | 74,000 | $2.9B |
| 6' Sea Rise | 11.2% | 87,000 | 123,000 | $6.4B |

*Source: 2013 Northeast Florida Regional Evacuation Study, NOAA, Florida Department of Revenue*

P2R2

Public/Private Regional Resiliency

# Public/Private Regional Resiliency

- Action Item from the Regional Action Plan on Sea Level Rise: Engage the Business Sector in Long Term Resiliency
- Committee of the NEFRC
- Business leadership is most likely to succeed here
- On track to launch a strategy in June, 2015

P2R2

Public/Private Regional Resiliency

# More Information?

- Find the Regional Action Plan at www.nefrc.org: Resource Library
- Find the P2R2 Committee Webpage at http://www.rcinef.org/P2R2.html
- Contact me mmoehring@nefrc.org

Northeast Florida Regional Council