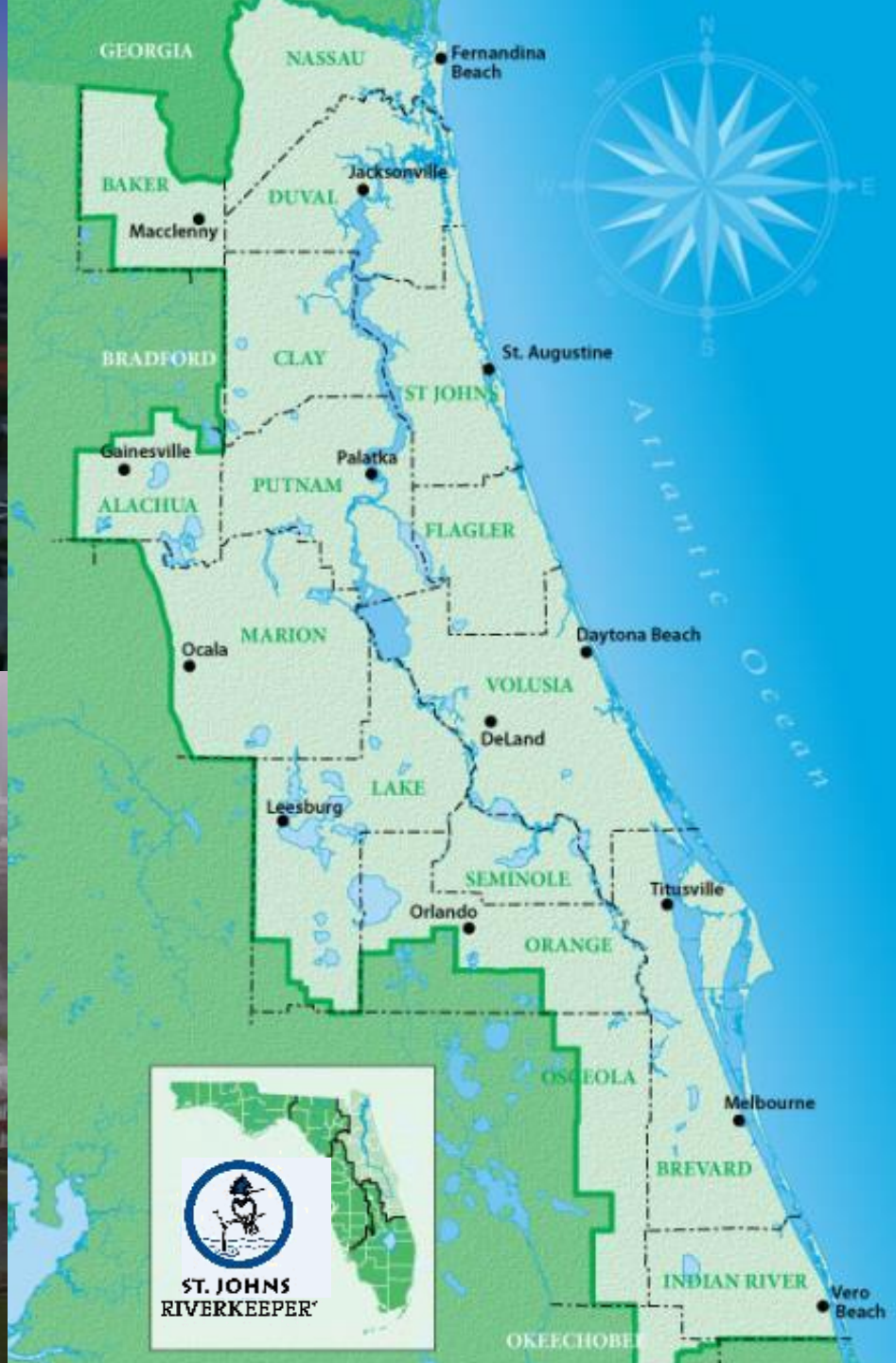
ST. JOHNS RIVERKEEPER®

A More Resilient St. Johns River = A More Competitive Jacksonville

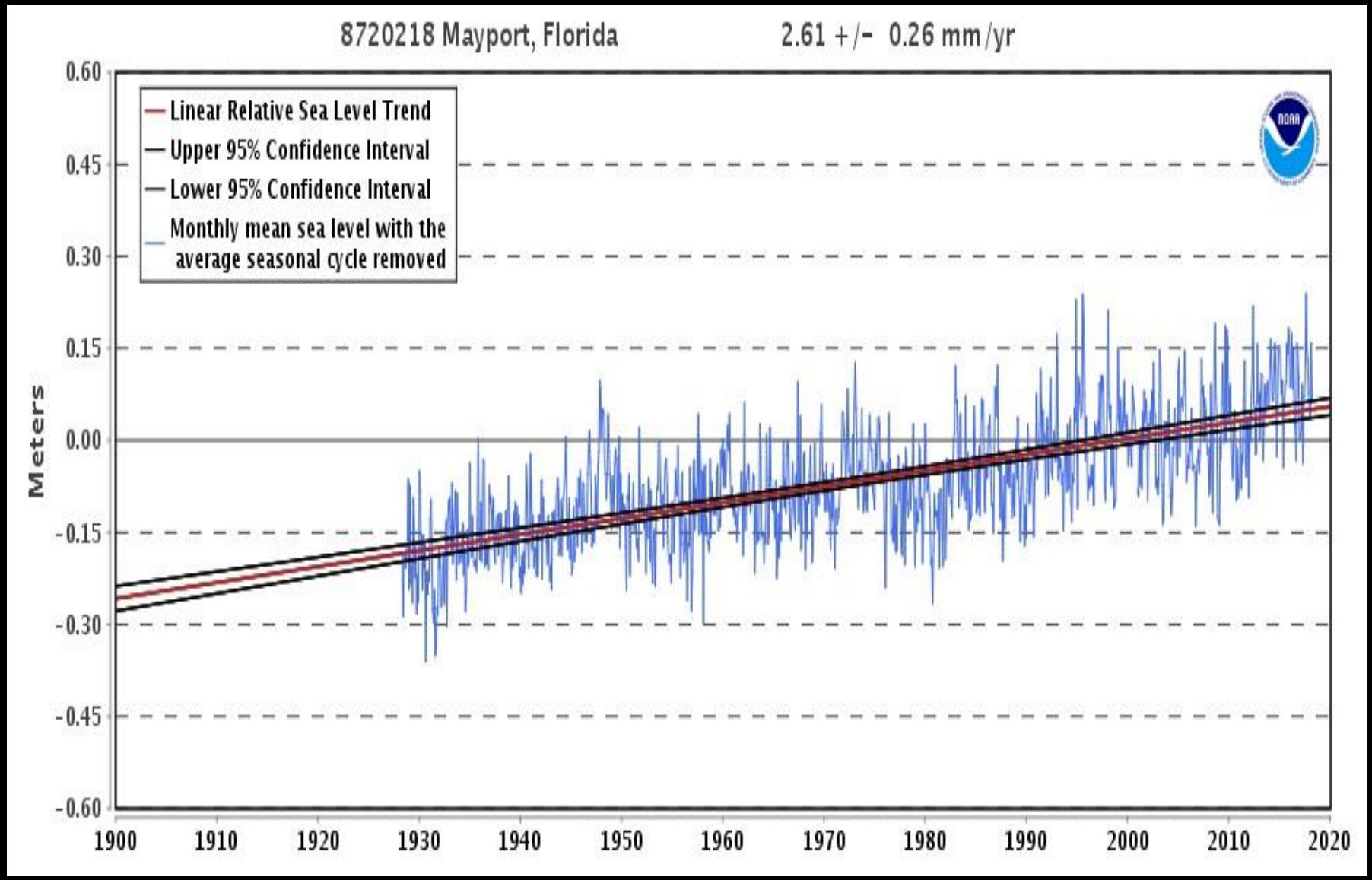

GEORGIA
NASSAU
Fernandina Beach
BAKER
Jacksonville
DUVAL
Macclenny
BRADFORD
CLAY
St. Augustine
ST JOHNS
Gainesville
Palatka
PUTNAM
ALACHUA
FLAGLER
MARION
Ocala
Daytona Beach
VOLUSIA
DeLand
LAKE
Leesburg
SEMINOLE
Titusville
Orlando
ORANGE
OSCEOLA
Melbourne
BREVARD
INDIAN RIVER
Vero Beach
OKEECHOBEE
Atlantic Ocean
ST. JOHNS
RIVERKEEPER

Tampa Bay Times

The city is dangerously flood-prone, making a hit from even a weaker hurricane potentially catastrophic.

The Weather Channel

JACKSONVILLE- In Top 5 - Most Hurricane-Vulnerable Cities on the East Coast


8720218 Mayport, Florida
2.61 +/- 0.26 mm/yr
Linear Relative Sea Level Trend
Upper 95% Confidence Interval
Lower 95% Confidence Interval
Monthly mean sea level with the average seasonal cycle removed
NOAA
Meters
0.60
0.45
0.30
0.15
0.00
-0.15
-0.30
-0.45
-0.60
1900
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
2020

The Florida Times-Union

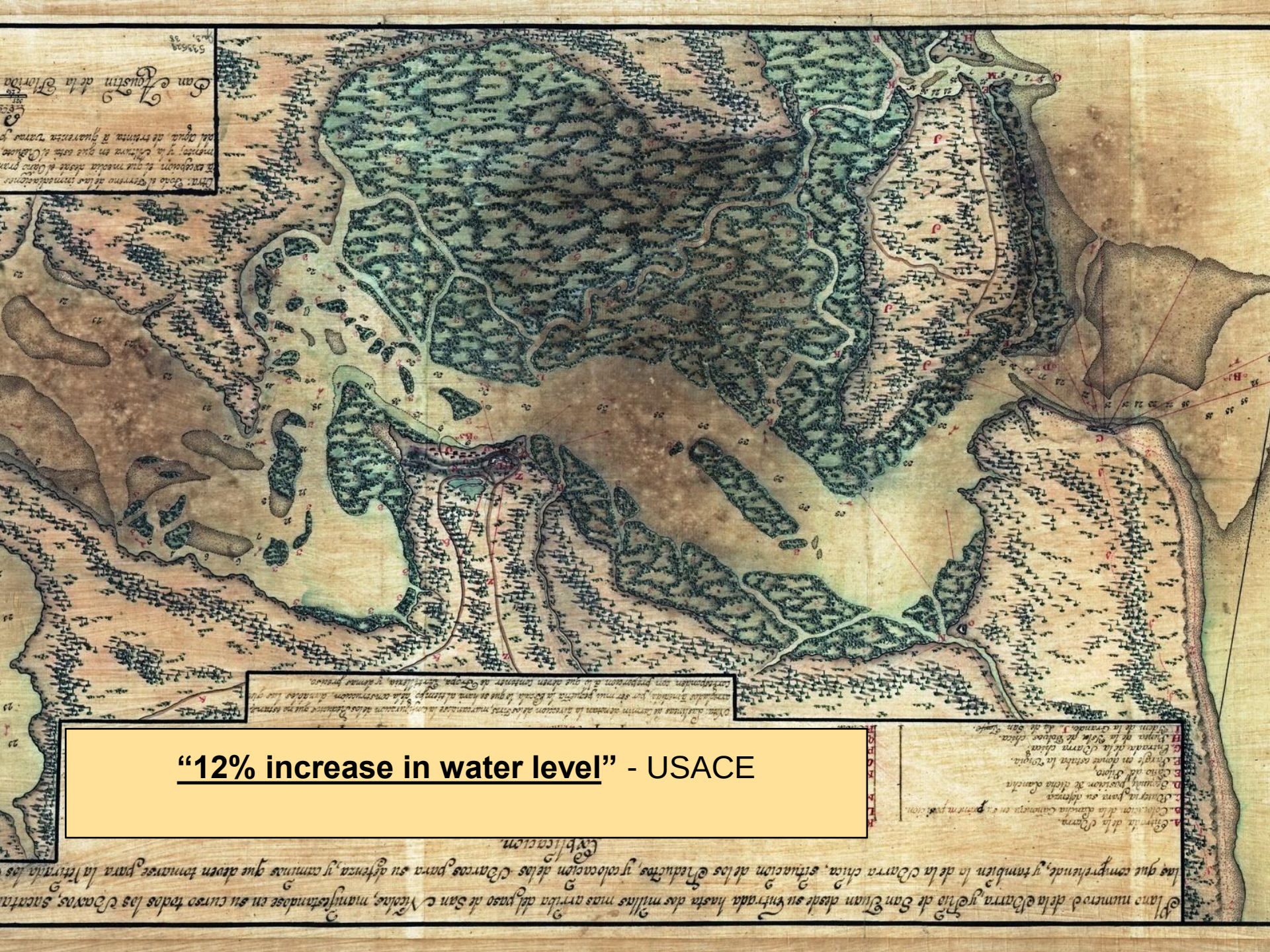
Sunday, May 6, 2018 | jacksonville.com | @jaxdotcom | facebook.com/TLTimesUnion | $1

A FLORIDA TIMES-UNION SPECIAL REPORT

AS THE OCEAN CREEPS IN

An aerial view of the St. Johns River (top) and Big Fishweir Creek overflowing a day after Hurricane Irma came through on Sept. 12. [WILL DICKEY/FLORIDA TIMES-UNION FILE]

A century of dredging brought wealth and watery risks



“12% increase in water level” - USACE

Drainage Under Average Tidal Conditions

Drainage With King Tide / Sea Level Rise

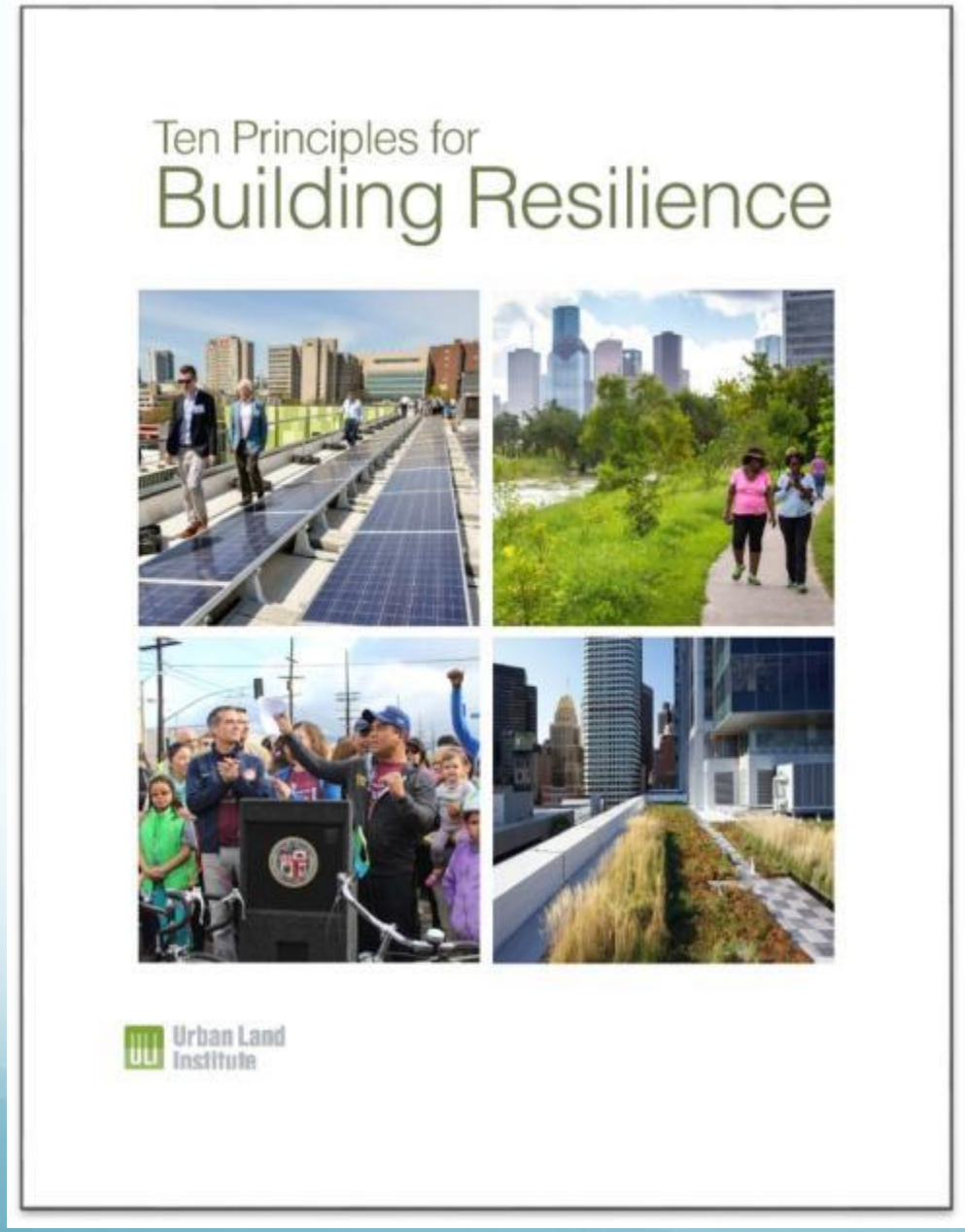
Jacksonville Has to Make a Choice

1. We can aggressively take action to make our community more resilient and more competitive.

2. We can allow our community and our river to become more vulnerable to the threats of the 21st Century.

RIVER RISING

A TOWN HALL SERIES



1. **<u>Understand Vulnerabilities</u>**
2. Strengthen job and housing opportunities
3. Promote equity
4. **<u>Leverage Community Assets</u>**
5. Redefine how and where to build
6. Build the business case
7. Accurately price the cost of inaction
8. **<u>Design with Natural Systems</u>**
9. Maximize co-benefits
10. Harness innovation and technology

Adaptation Planning: Road to Implementation

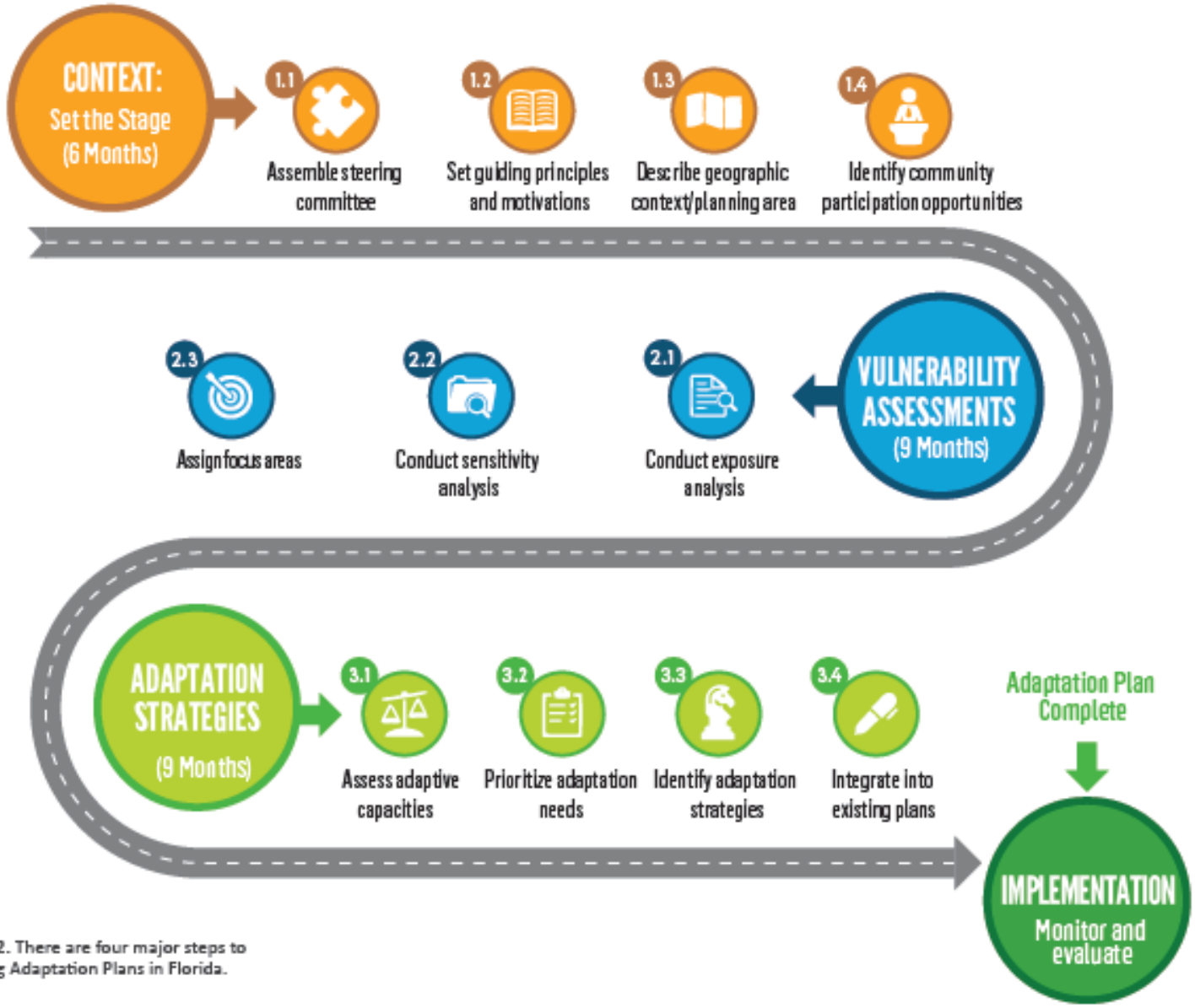
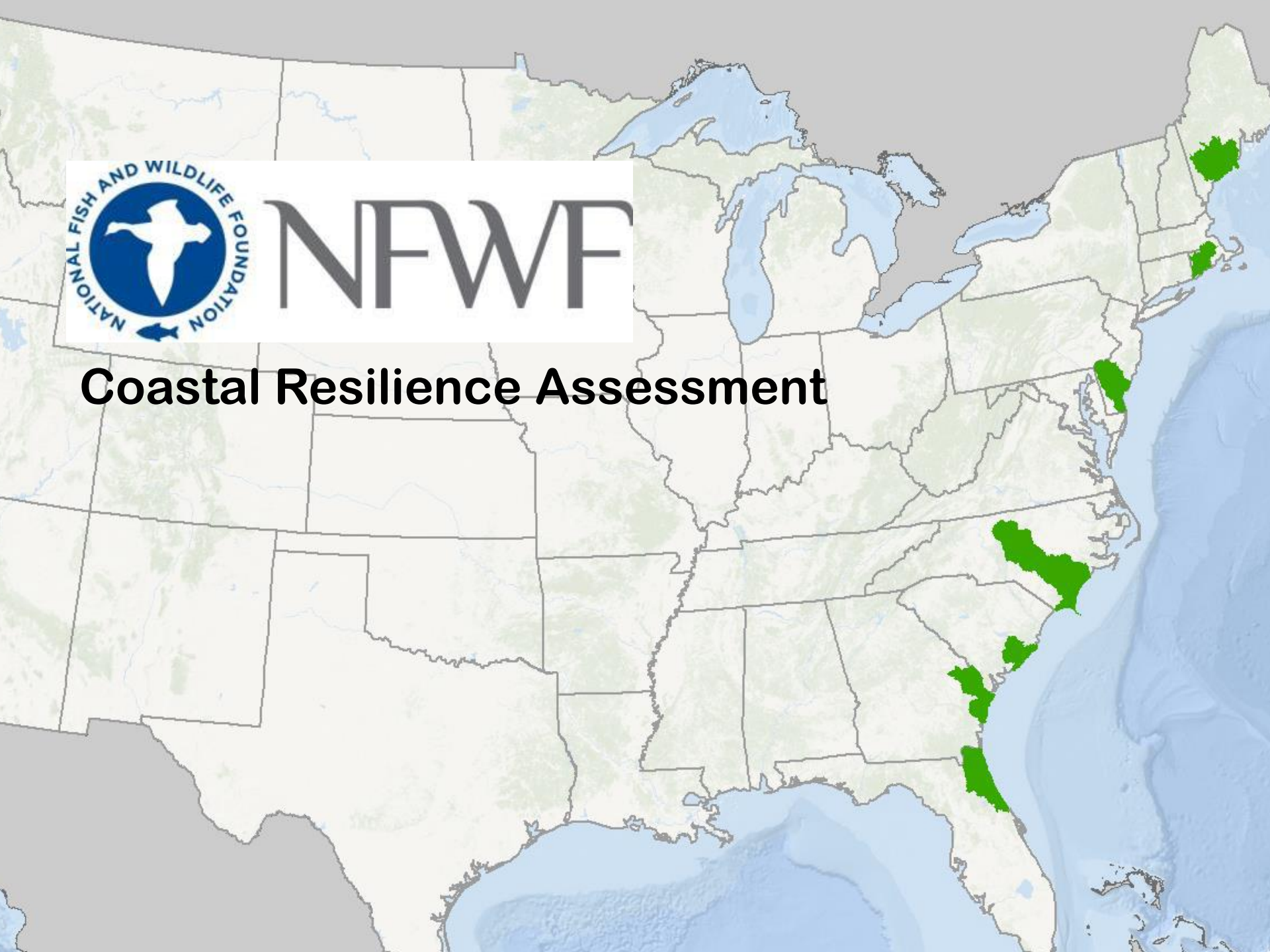


Figure 2. There are four major steps to creating Adaptation Plans in Florida.

Understand Vulnerabilities

- COJ Adaptation Action Area
- 2030 Comp Plan Revision – Recommends strategies and processes to assess the effectiveness of drainage and flooding infrastructure
- Jax Waterways Commission formally Requested Special City Council Task Force



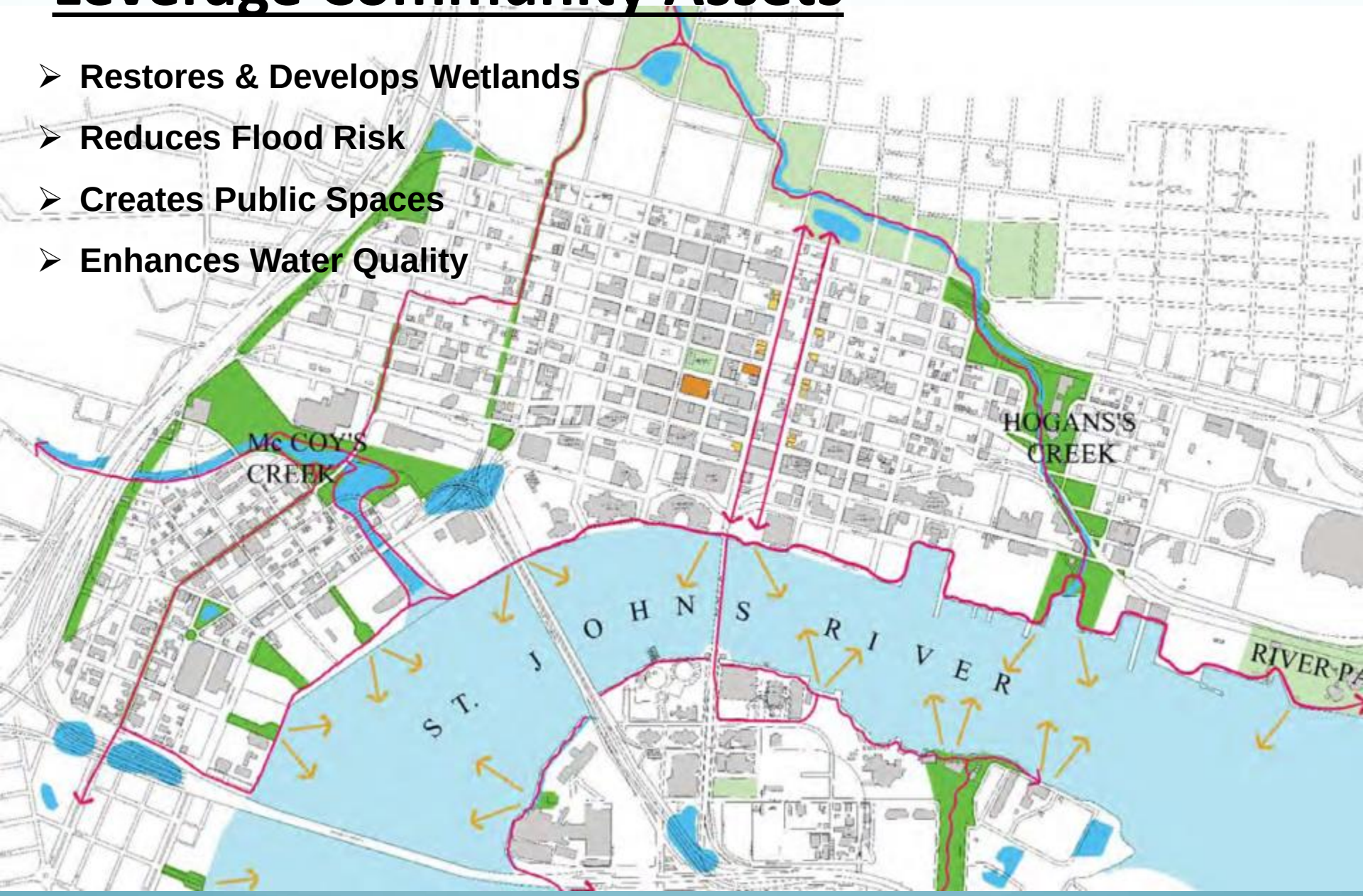
Coastal Resilience Assessment

Other Opportunities

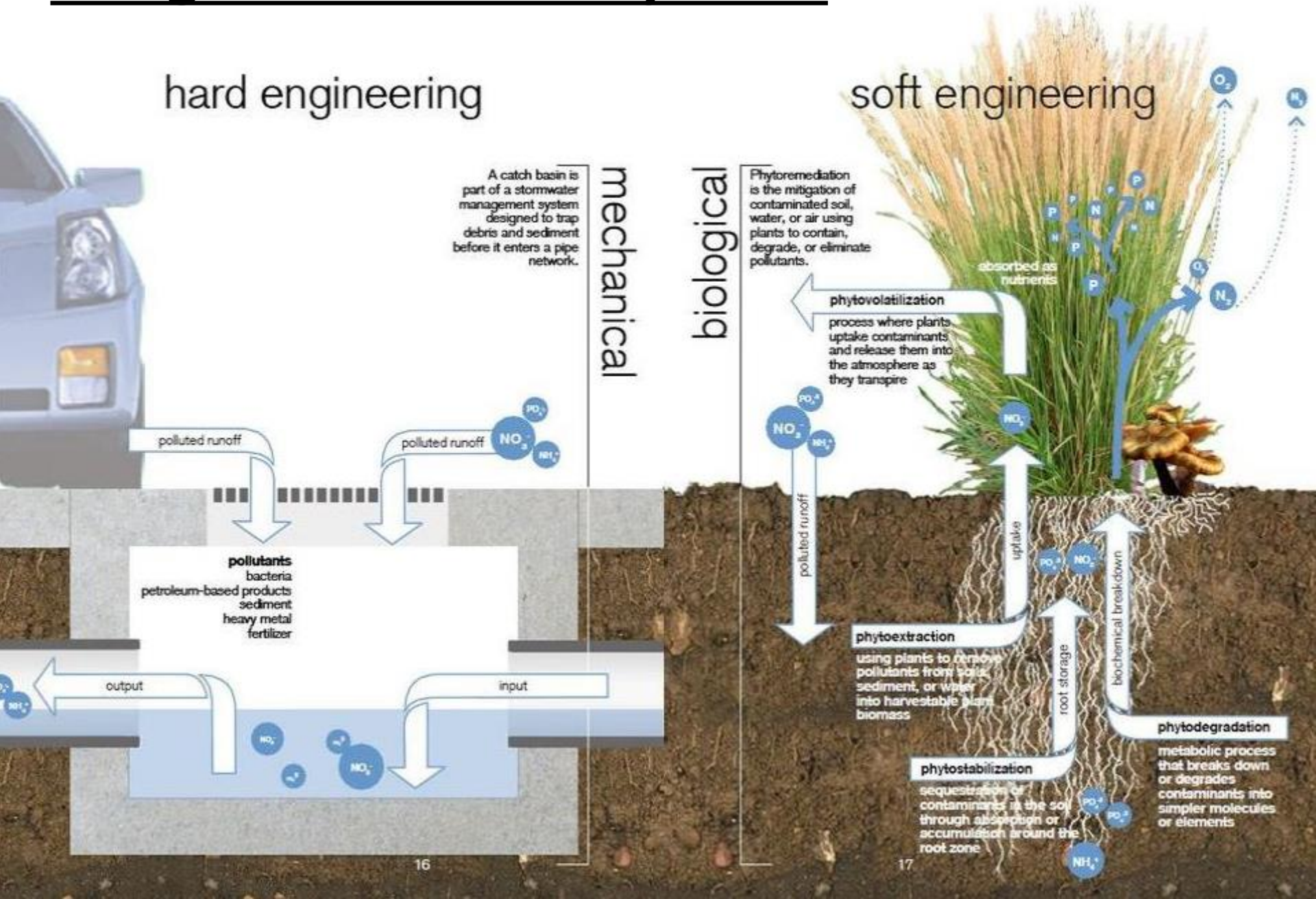
- Norfolk Citywide Coastal Storm Risk Management Study – USACE - Post Hurricane Sandy
- 100 Resilient Cities Program
- Joint Regional Approach
- Florida Coastal Management Program

Leverage Community Assets

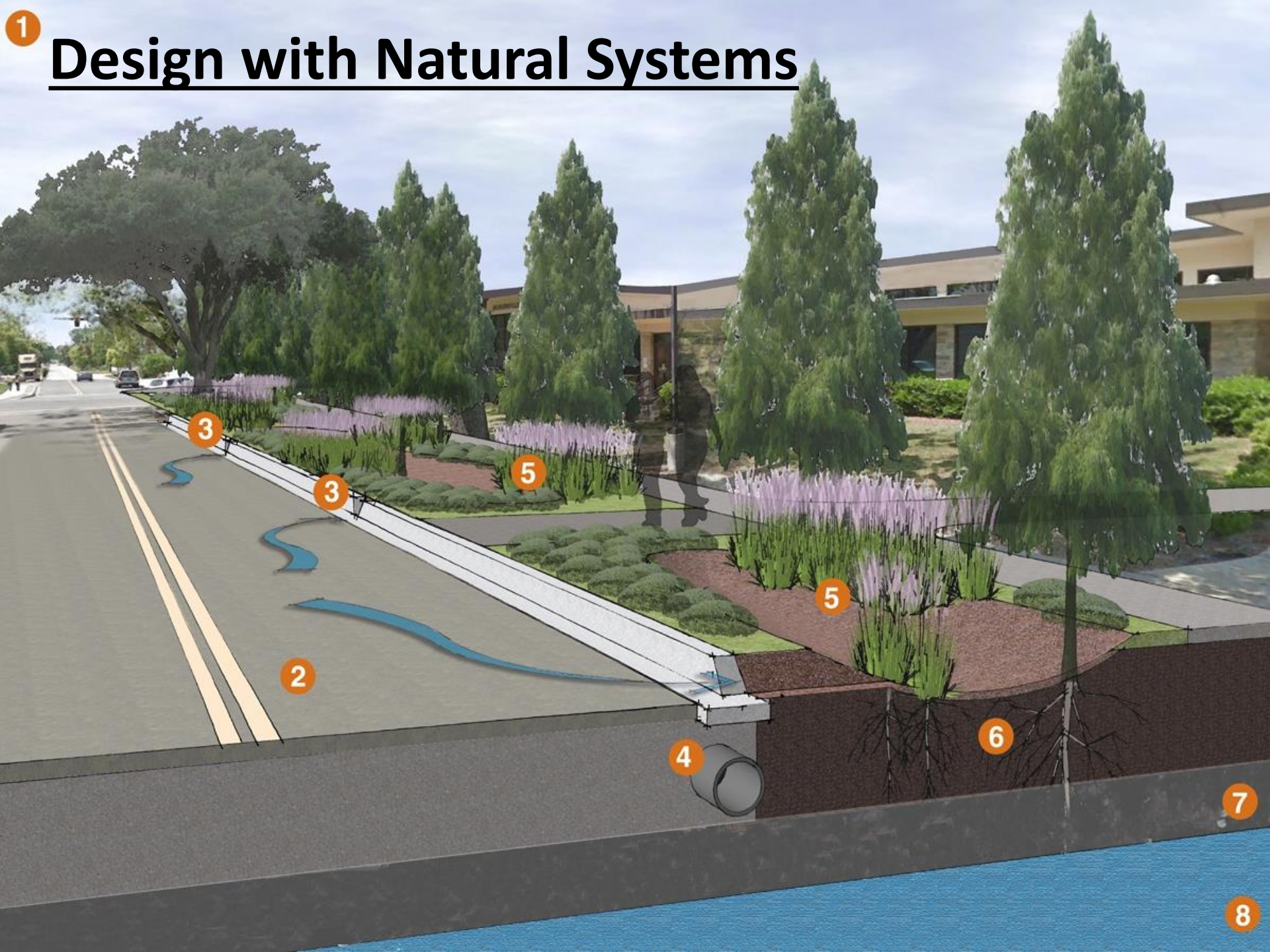
- Restores & Develops Wetlands
- Reduces Flood Risk
- Creates Public Spaces
- Enhances Water Quality

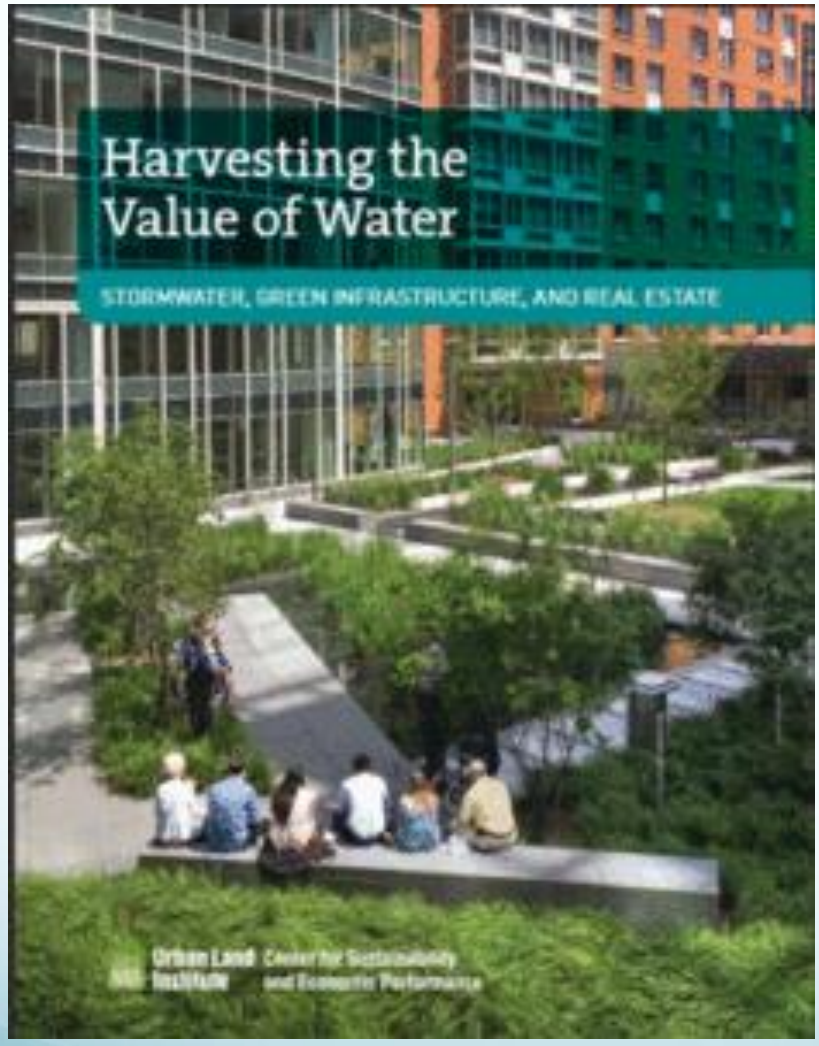


Design with Natural Systems



Design with Natural Systems





New York City evaluated two stormwater management strategies and **found that a green infrastructure plan**, including green roofs, stream restoration, and bioswales, **would save $1.5 billion compared to a gray infrastructure plan** composed of tunnels, pumps, and storm drains.

The green infrastructure plan was projected to **offer more long-term environmental, social, and economic benefits** to the city.

No Net Loss of Wetlands – Critical to River Health

Photo courtesy of SJRWMD

Goal 4 – To achieve **no further net loss of the natural functions of the City's remaining wetlands,** improve the quality of the City's wetlands resources over the long-term and improve water quality and fish and wildlife values of wetlands.

What Choice Will We Make?

ST. JOHNS RIVERKEEPER®