PLANNING FOR ACTION: SEA LEVEL RISE AND A HISTORIC BARRIER ISLAND COMMUNITY

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PAST COMMUNITY DEVELOPMENT DIRECTOR, CITY OF FERNANDINA BEACH
CURRENT EXECUTIVE DIRECTOR, RIVERSIDE AVONDALE PRESERVATION

KEEPING HISTORY ABOVE WATER - NEWPORT - 11 APRIL 2016
**FERNANDINA BEACH ON AMELIA ISLAND**

Coastal barrier island  
Southernmost Sea Island – chain of islands from SC to FL  
13 miles long, 4 miles wide at widest point  
Fernandina Beach is on northern half of island  
12,000 people in City limits  

Photo credit: Elizabeth Wilkes
AMELIA ISLAND/FERNANDINA HISTORY:
ISLE OF EIGHT FLAGS

FLAGS: French, Spanish, English, Patriot, Green Cross, Mexican Rebel, Confederate, United States

c.1000 - Timucuan native population
1562 – French arrive (Jue de Mai)
1565 – Spanish displace French (Isla de Santa Maria)
1573-1680 – Spanish Franciscan mission Isla de Santa Maria on south end
1702 – British invasion (Amelia Island)
1783 – Goes back to Spain
1811 – Fernandina officially platted by the Spanish and named after King Ferdinand VII
1817 – Scottish Patrior Gregor McGregor seized island under Green Cross
Luis Aury, French pirate, seizes island on behalf of Mexico
US holds island in trust for Spain
1861 – Confederacy takes control
1862 – Union forces claim island for US
Late 19th c. – Tourism + “Golden Age”
Early/Mid 20th c. – Commercial shrimping and fishing boom “Birthplace of the Modern Shrimping Industry” + paper mill industry
Late 20th c. – Tourism destination once again

Floridamemory.com
FERNANDINA BEACH PRESERVATION

- Preservation program started in 1973 with initial National Register listing of Downtown
- First preservation ordinance in 1975
- Certified Local Government
- Two historic districts: Old Town and Downtown
  - Old Town, c.1811: National Register Site
  - Downtown, c.1850's: National Register District
- Individual locally designated sites: Amelia Island Lighthouse, Peck High School, John Denham Palmer House
- The oldest Florida county courthouse in continuous use
- The Florida House Inn - oldest surviving, continually operated hotel in the state of Florida
- The Palace Saloon - one of the oldest continually operating bars in the state of Florida
HISTORIC PROPERTIES AT RISK

Old Town Historic District + Bosque Bello Cemetery

Downtown Historic District

Amelia River Side

Atlantic Ocean Side

Fort Clinch

Amelia Island Lighthouse

American Beach
FERNANDINA BEACH + SLR: VULNERABILITY

- Lucky to have 100+ year old tide gauge - shows about 7" SLR over past 110 years
- UCS Rising Tides: 8 floods by 2030; 37 by 2045

Community Asset Vulnerability Map
City and County planning staff identified community assets and they were mapped at 1’, 3’ and 6’ of SLR.

8720030 - Fernandina Beach, FL: 2.3 (mm/yr)

Curves computed using criteria in EC 1165-2-212

U.S. Army Corps of Engineers
Sea Level Rise Curves

- 1992-2172
- Three probability levels
- 2052: between 1.5’ – 2.5’ rise
Required by Florida Statute § 163
Conservation and Coastal Management element required for coastal counties

Objective 5.04 Coastal High Hazard Areas
Policy 5.04.10: The City recognizes sea-level rise as a potential coastal hazard, and shall work with Nassau County and state and regional entities as appropriate to develop strategies for responding to sea-level rise

Historic Preservation element
- Right now addresses post-disaster strategies, but not pre-disaster mitigation
- Opportunity to include cultural resource mitigation and adaptation
GENERAL PLANNING:
CITY RESILIENCY PLAN

In progress
Yet to identify our SLR planning threshold...

Shoreline study with St. Johns River Water Management District

• Importance of partnerships
• Evaluation of existing shorelines (primarily estuarine/marsh)
• Look at factors such as: floodplain, storm surge, wave energy, sea level rise
• Determine habitat planning and restoration opportunities
• Could lead to stabilization strategies around waterfront cultural resource sites

http://www.dialogdesign.ca/open-dialog/boma-seminar-disaster-management-resilience-planning/

Shoreline Habitat Restoration & Management Plan
“Beautiful Woods”
City’s Municipal Cemetery
Orig. 1798
Oldest stone c.1813
Approx. 29 acres

Originally Spanish – deeded to Fernandina in 1847
Ancient and New Sections
Approx. 5500 burials

Part of ancient section is in local Old Town historic district (National Register Historic Site)

Photos courtesy of Ed Richtsteig
## Cemetery Plan Components

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BOSQUE BELLO + VULNERABILITY

NOAA SLR viewer
Archaeological Predictive model
Storm surge
Wetlands
GIS integration of headstones and plots
COUNTY PLANNING:
LOCAL MITIGATION STRATEGY (LMS) PLAN

Five year plan required by FEMA

Identifies pre-disaster mitigation strategies for a community

FEMA Mitigation Ideas publication

- Addresses flooding and SLR but not cultural resources

Added cultural resources mitigation study for project list

Working on grant application for floodplain mitigation study for Amelia River waterfront in historic downtown

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Nassau County Local Mitigation Strategy

Project Proposal Form

Proposal Title: Cultural Resource Mitigation Study

Submitting Entity: City of Fernandina Beach

Date: 4/8/2015

Point of Contact: Adrienne Burke

Office #: 904-310-3142

E-mail Address: aburke@fbfl.org

Cellular #: 904-557-1521
NEXT STEPS FOR FERNANDINA BEACH...

• Working with University of Florida + National Park Service on case study
• Work on establishing planning threshold – City Commissioner interested in convening a community task force
• Continue work on Shoreline Resiliency Plan
• Work on downtown floodplain study
• Identify vulnerabilities + priority properties
• Work on mitigation options
• Continued beach renourishment on the Atlantic Ocean side with projects by the Army Corps of Engineers and U.S. Navy
QUESTIONS FOR SMALL COMMUNITIES

• **FUNDING!**

• **STAFF RESOURCES!**

• Prioritizing critical infrastructure vs. cultural resources
  • Arguably, when heritage tourism is a large component of a visitor base, then cultural resources are important infrastructure…

• **Identifying mitigation options and strategies**

• **Time to work with individual property owners on mitigation options and strategies**

• **Protecting large-scale resources like cemeteries or cultural landscapes**

• **Community engagement + volunteers**