REPORT FROM THE

2015 EPB-UNF Environmental Symposium

AUGUST 14, 2015

CLOSING SESSION

Sea Level Rise - A Community Resiliency Assessment for the City of Jacksonville

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COMMUNITY RESILIENCY ASSESSMENT: CITY OF JACKSONVILLE

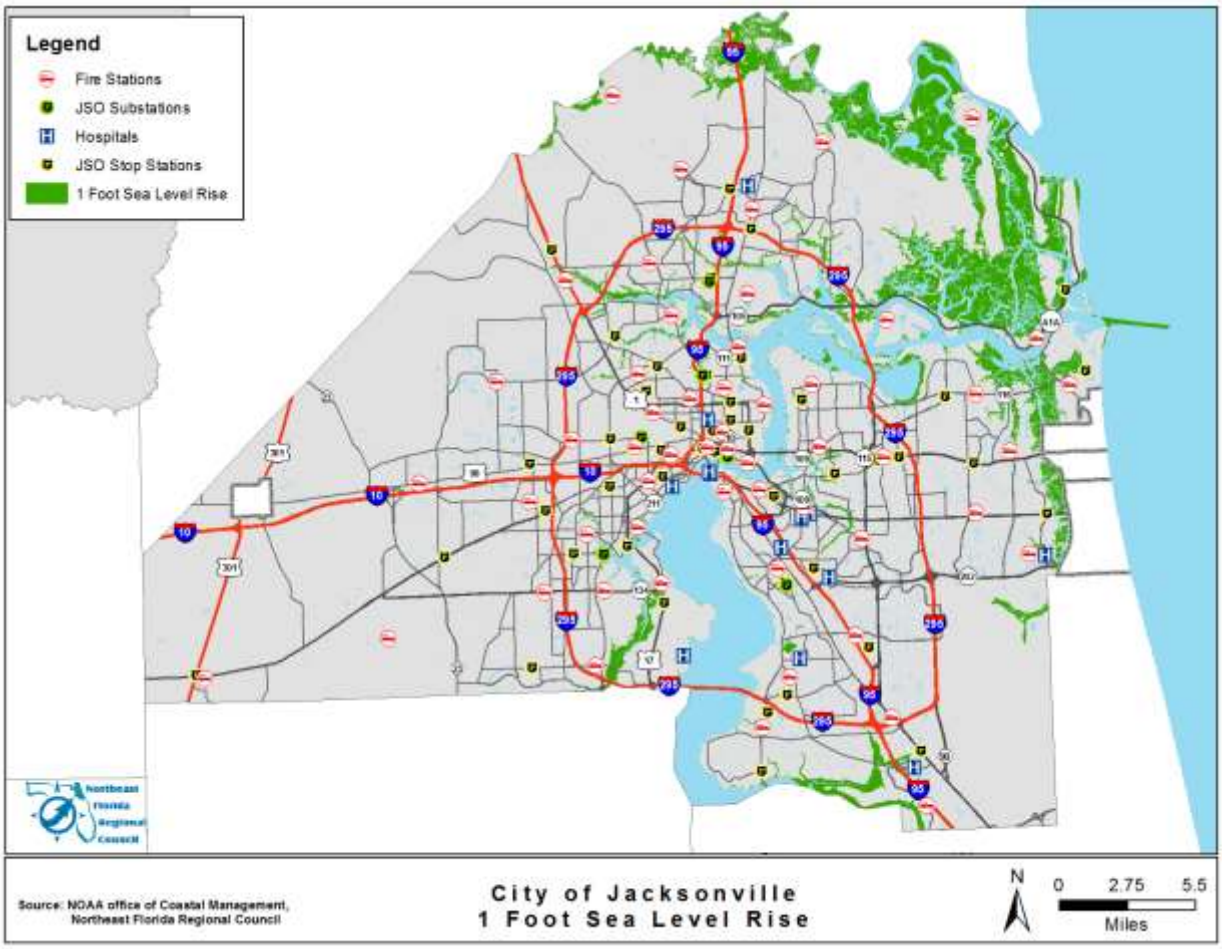
Background

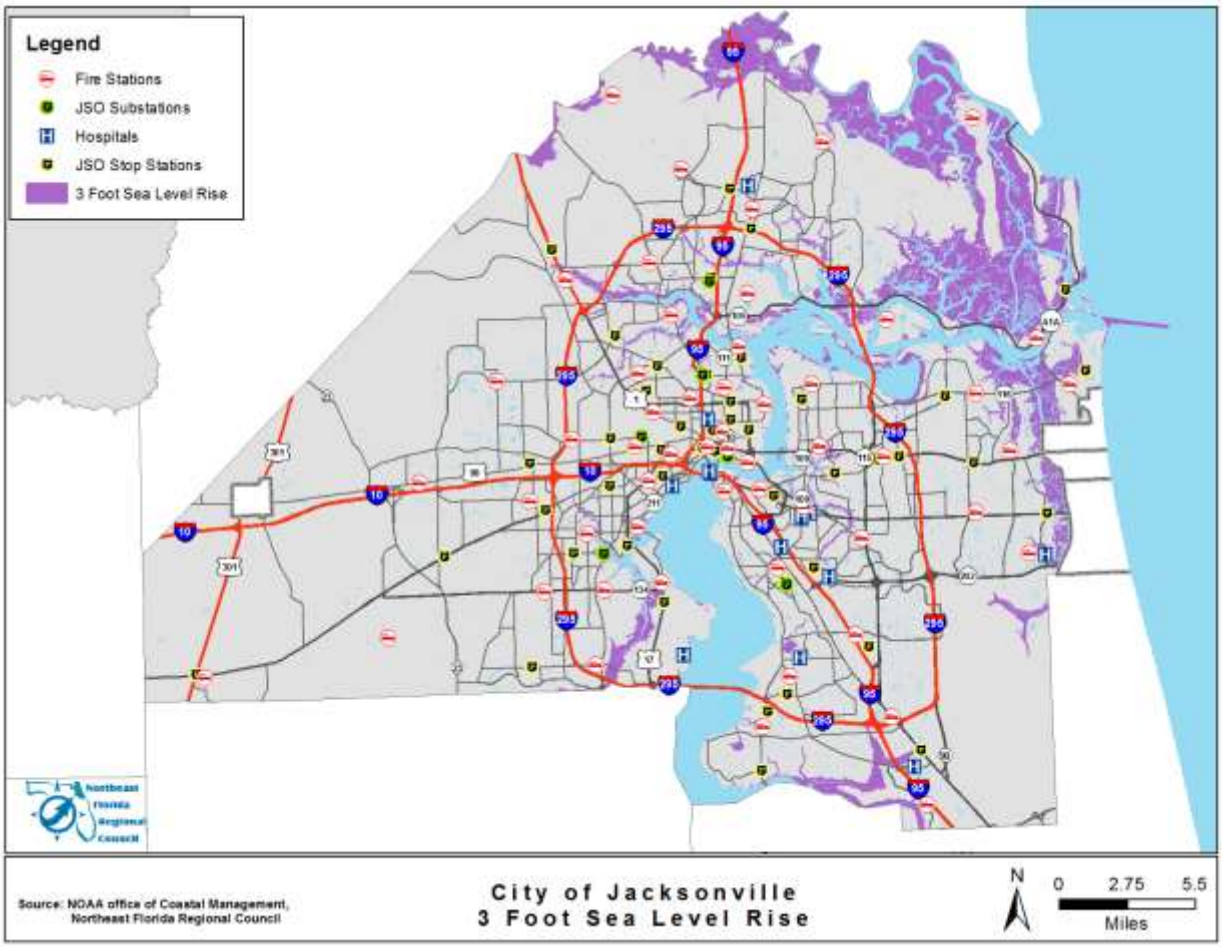
In March, 2013, the Regional Community Institute of Northeast Florida, Inc. (RCI) invited coastal and riverfront communities in the region to participate in community resiliency assessments, to inform its work on a regional action plan for sea level rise and to begin dialogue in the region on the potential for impacts related to sea level rise. Communities were asked to identify the community assets they wanted to consider, and these were added to maps of 1', 3' and 6' of sea level rise, corresponding to the working regional assumptions of 1'-3' of rise by 2060 and 3'-6' by 2110. A meeting with stakeholders identified by the communities was held to discuss the results. Nine such assessments were conducted in 2013. Jacksonville did not respond to the invitation at that time. The assessments added a practical perspective to the regional action plan for sea level rise, resulted in constructive dialogue with stakeholders and invariably led to discussion on both the community assets shown on the maps and those that were not included. It was hoped that local discussions would continue after the assessments were completed, and maps and results were provided to each community to facilitate additional discussion.

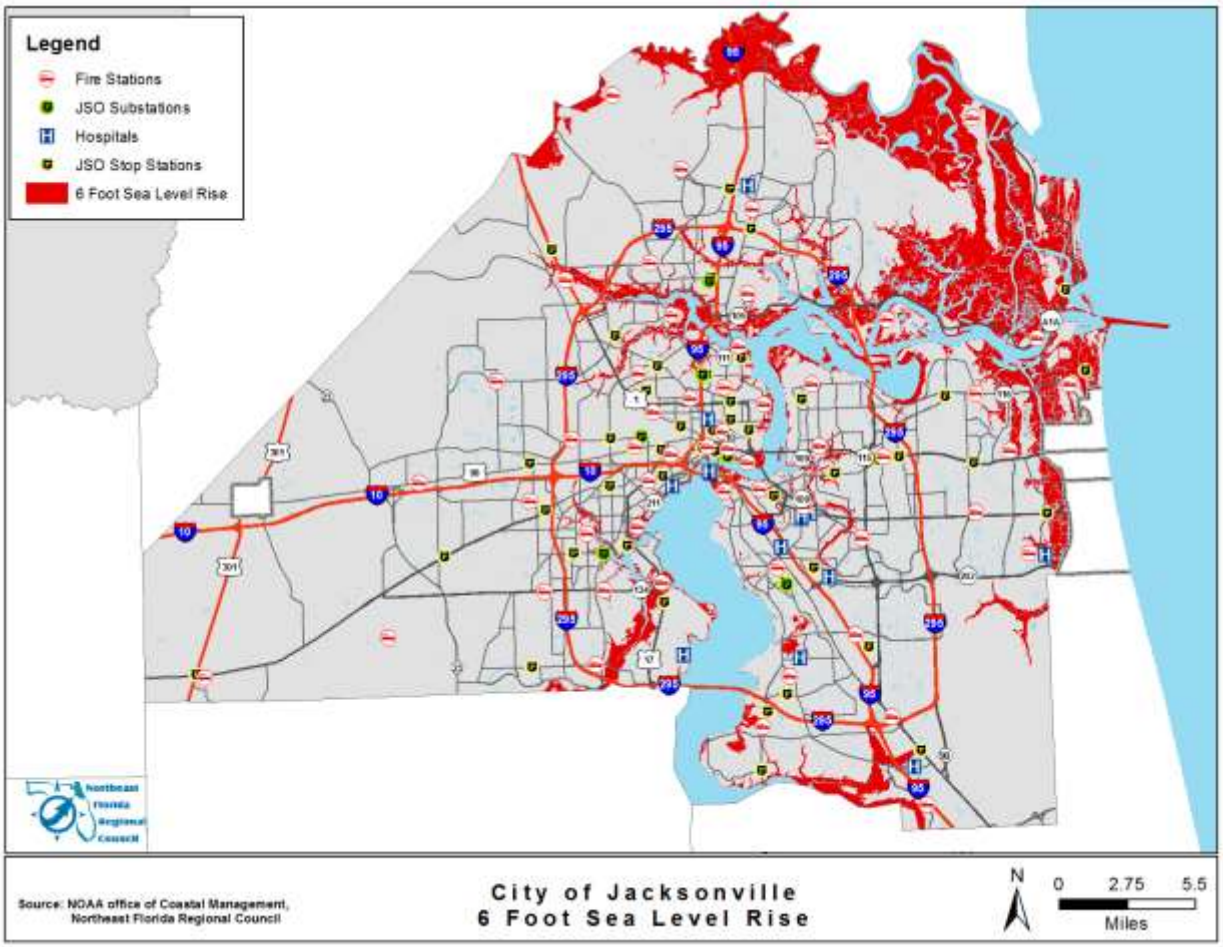
City Of Jacksonville

As the final presentation for the EPB/UNF Environmental Symposium on August 14, 2015, a community resiliency assessment was conducted for the City of Jacksonville. The community assets chosen by the City to be shown were fire stations, JSO Stop and Substations, and hospitals. The maps are below. The session was well-attended and the discussion was constructive, including mention of assets not shown as well as those depicted on the maps. The public input is transcribed below. It is hoped that these will further discussions in the Jacksonville community as it prepares for sea level rise.

Maps


Legend
Fire Stations
JSO Substations
Hospitals
JSO Stop Stations
1 Foot Sea Level Rise
Source: NOAA office of Coastal Management, Northeast Florida Regional Council
City of Jacksonville
1 Foot Sea Level Rise
N
0
2.75
5.5
Miles


Legend
Fire Stations
JSO Substations
Hospitals
JSO Stop Stations
3 Foot Sea Level Rise
Source: NOAA office of Coastal Management, Northeast Florida Regional Council
City of Jacksonville
3 Foot Sea Level Rise
N
0
2.75
5.5
Miles



Facilitated Discussion: Public Comments

Considerations:

- Look at the drainage infrastructure in the City
- The bottom of the St. Johns River is below sea level
- Additional salinity in the River will cause corrosion of infrastructure
- As water rises, drains become flooding threat
- Consider the water supply for agricultural and food systems
- What roadways are underwater?
- Consider the correlation between high tides, storm events and sea level rise/climate change
- The timing of priorities is a risk factor

- Regional assumptions for sea level rise may be too low and might occur more quickly
- Consult George Maul of Florida Tech, who is an expert in the history of Florida tides and land mass
- Consider affordable housing, as sea level rise may impact the price and availability of insurance and price people out of homes
- Coastal (vulnerable) property will become less valuable(lower the tax base)
- Anticipate additional flooding from El Nino and an increase in hurricane effects
- Growth and development pressure may be felt in NE Florida by the retreat of people from South Florida. Jacksonville could be a very different place and will be impacted by what happens in South Florida
- Energy infrastructure is at risk
- Mitigation initiatives need to communication why these are needed and provide more education
- NS6 mandates reduction of carbon footprints of ships, which equate to the building of more efficient, bigger ships requiring deeper ports. The dredging of our river subsidizes overseas compliance with this carbon reducing pact.
- Sea level rise is not just a local problem, but a global problem.

<u>What Should We Do?</u>

- Well protection for drinking water
- Assess access (roadways, bridges, etc.)
- Determine a time frame of mitigation options to the rise in sea level. What do we do first? How long does it take to elevate? Harden?
- Take a risk management perspective
- Interface with maritime communities, they are valuable assets
- Build community awareness of vulnerability, and the use of resilient building practices in the future
- Plan for the potential relocation of people from other vulnerable areas (South Florida)
- Continue to learn and be willing to listen (and implement) a variety of resilient options as we move forward in the future

- Assess the parks, preserves and other lands to determine how much we are losing (NE Florida Land Trust has a related study)
- Assess the energy infrastructure and work to decentralize the energy/power model so it is less vulnerable.

Comments from the feedback forms:

Impacts

- Impact of sea level rise on the salinity gradient in the St. Johns and St. Marys Rivers and much more rapid rate of rise than assumed.
- Impact of increase in ocean acidity due to absorption of fossil CO2 from atmosphere
- Risk associated with more severe storm events
- Food
- Safety
- Roadways

What should City/Region do?

- Two tier strategy – adaption to more rapid rates of sea level rise and extreme storm events by protecting wetlands and providing for inland migration of wetlands and move the entire city inland to higher ground.
- Mitigation of GHG emissions – lead transition to low carbon energy systems and fuels
- Brand Jacksonville the CLEAN energy capital of Florida
- Make carbon intensity a metric for all economic development plans and decisions and establish targets and goals for regional reduction in emissions.
- Develop planning and management tools to steer infrastructure and development from vulnerable areas
- Devise design and location standards for long-term public infrastructure investments which consider SLR impacts
- Educate the public on the issue through classroom visits and presentations open to the public

- Look at drainage and how it will impact the water with addition of SLR
- Continue to have dialogue and open forums
- Keep the conversation going
- Local vessels and ships could be assets with their independent radio communications systems and capability of carrying or sheltering people displaced by sea level rise.

What other issues should be considered?

- An ounce of prevention is worth much, much more than a pound of cure
- Add a GHG mitigation element to the community outreach/education/communication plan.
- Major systems (water, food, energy, ecological services, transportation, etc.)
- Process for priority setting (tough job)

**Conference related comment on the use of re-usable plates, silverware and cups at the symposium.

For more information on the community resiliency assessment process or the Northeast Florida Regional Council's work on sea level rise, contact Margo Moehring at mmoehring@nefrc.org.