Planning Together: A Socio-Ecological Approach to Planning for Climate Change

The Rational Planning Approach

Principles of Rational Planning

- Rational planner is disinterested, intellectual, and unemotional.
- Rationality is a data-driven means to an end.
- Process:
  - Decisionmaker considers all alternatives open to him;
  - He identifies all consequences that would follow with the adoption of all the alternatives;
  - He selects the alternatives the probable consequences of which would be preferable in terms of his most valued ends.
    - Banfield (1955)

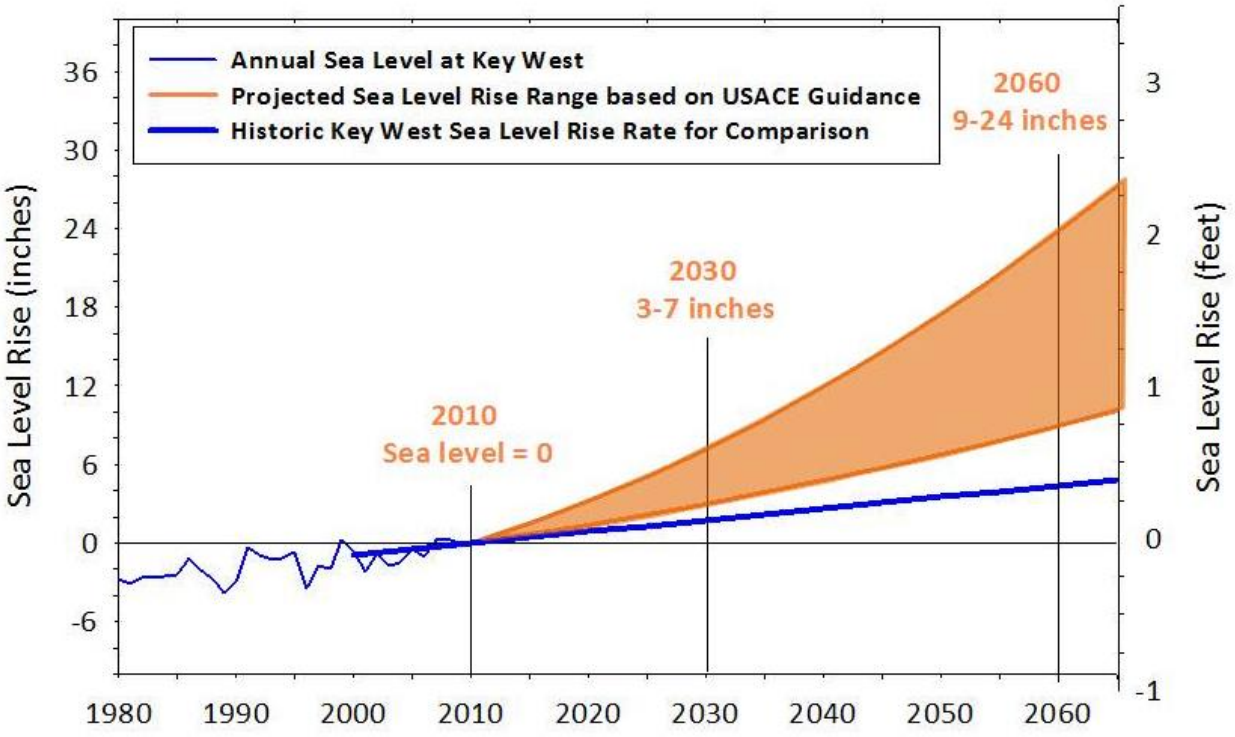
Criticisms of Rational Planning

- Model does not describe how decisions are made;
- Feasibility constrains alternatives;
- Problems confounded by participation of multiple stakeholders;
- Fails to understand social considerations to the extent that decisions may produce harm, e.g. urban renewal
- Unrealistic-assumes that planners have no personal involvement or interests.

Rational Planning for SLR

- Model, Model, Model
- Build Scenarios
- Present Scenarios to the Public
  - Highlight: feasibility, costs, limitations
- Inventory Public Input and Present to Decisionmakers as One Factor for Consideration
- No Education or Advocacy!!!

Future Projections for Sea Level Rise



Unified Southeast Florida Sea Level Rise Projection for Regional Planning Purposes. This projection uses historic tidal information from Key West and was calculated by Kristopher Esterson from the United States Army Corps of Engineers using USACE Guidance (USACE 2009) intermediate and high curves to represent the lower and upper bound for projected sea level rise in Southeast Florida. Sea level measured in Key West over the past several decades is shown. The rate of sea level rise from Key West over the period of 1913 to 1999 is extrapolated to show how the historic rate compares to projected rates.

Problem with this Approach

- The science is relatively uncertain.
  - This is frustrating to the public.
- This approach does not adequately capture the willingness of humans to respond/adapt to climate change.
- Public process is at the heart of identifying, adopting, and implementing adaptation strategies.

The Social Action Research Approach

Communicative Planning

- Planning is a dialogic process (Innes, 1999).
- All forms of knowledge are valid.
- Processes remain open and on-going
- Planner facilitates the process.
- Stakeholders are advocates for the plan.

The SAR Approach

- Programs are co-developed by researchers and participants.
- Elements of Action Research Proposals:
  - (1) participative;
  - (2) qualitative;
  - (3) cyclic;
  - (4) critically reflective; and
  - (5) emergent (Dick, 1998).
- the process should result in consciousness-raising, conscientization (Reason and Bradbury, 2001).

Planning for Adaptation in the Matanzas Basin

GTM partners with UF to study sea level rise in the Matanzas basin.

Study targets sea-level rise; Flagler reserve key to research

Print Story

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BY DINAH VOYLES PULVER, STAFF WRITER

November 20, 2011 12:30 AM

Posted in: Flagler | **Tagged:** Matanzas estuary

A pair of researchers concerned about how future increases in sea level could spell trouble for fragile coastal areas of Flagler and St. Johns counties will use a new federal grant to start a regional planning process.

A tern rests on the rocks Saturday at the River to Sea Pre serve in Marineland. (NJ | David Massey)

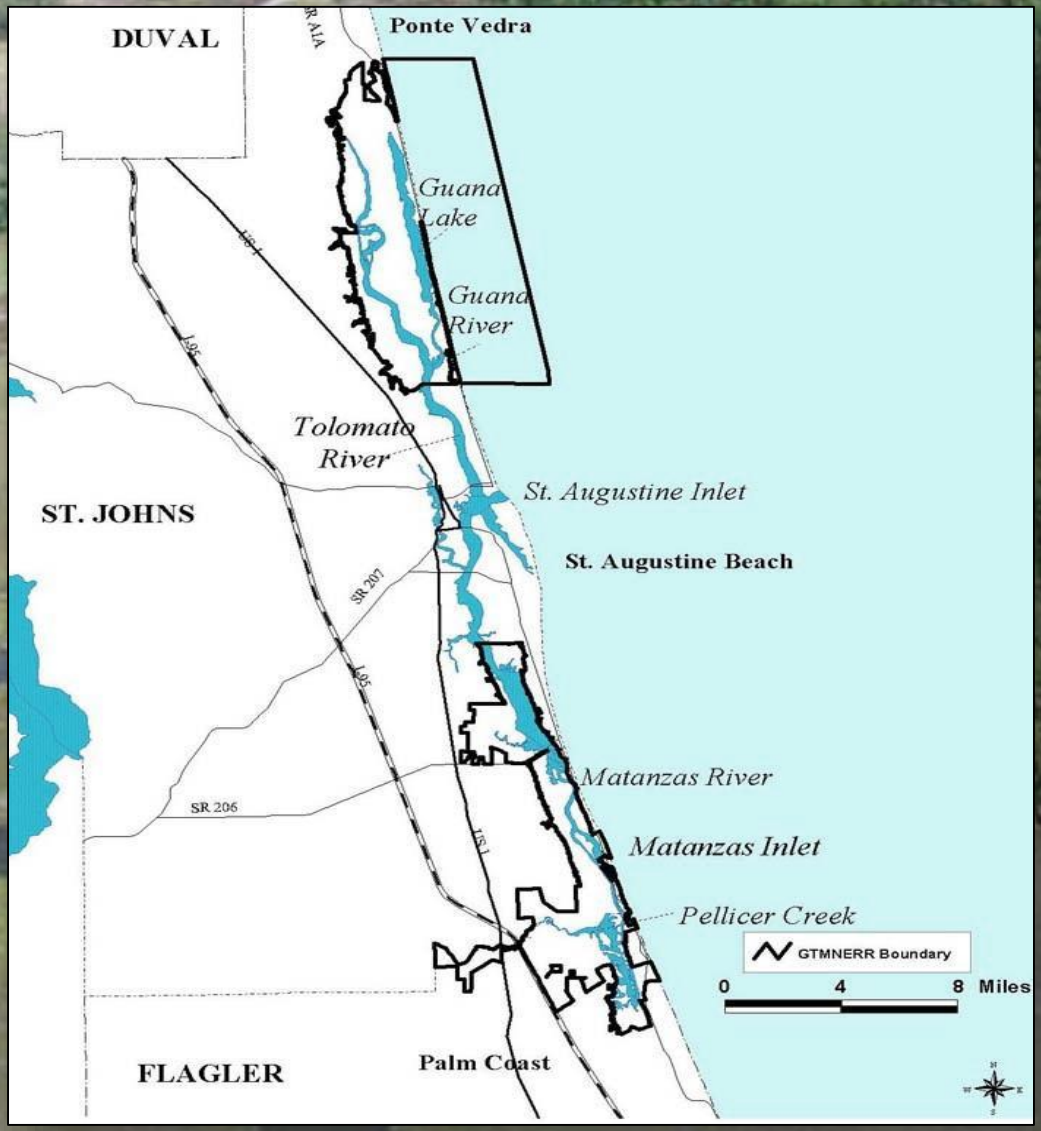
The narrow coastline and marshes that fringe the Matanzas River south of Matanzas Inlet and make up the Guana Tolomato Matanzas National Estuarine Research Reserve are home to many varieties of animals and plants. Starting a planning process to ensure the estuary and surrounding areas are prepared and protected is the focus of the new research grant recently awarded to the research reserve.

The $618,377 grant from the National Oceanic and Atmospheric Administration will be awarded over three years to a collaborative effort between the reserve and scientists with the University of Florida. The grant was one of two received recently by the Florida Department of Environmental Protection out of only seven awarded to research reserves nationwide.

The grant will help the reserve further its research on how future changes in climate, particularly potential sea level increases, might impact the southern section of the reserve and people who live in the region.

http://www.news-journalonline.com/news/local/flagler/2011/11/20/study-targets-sea-level-rise-flagler-reserve-key-to-research.html

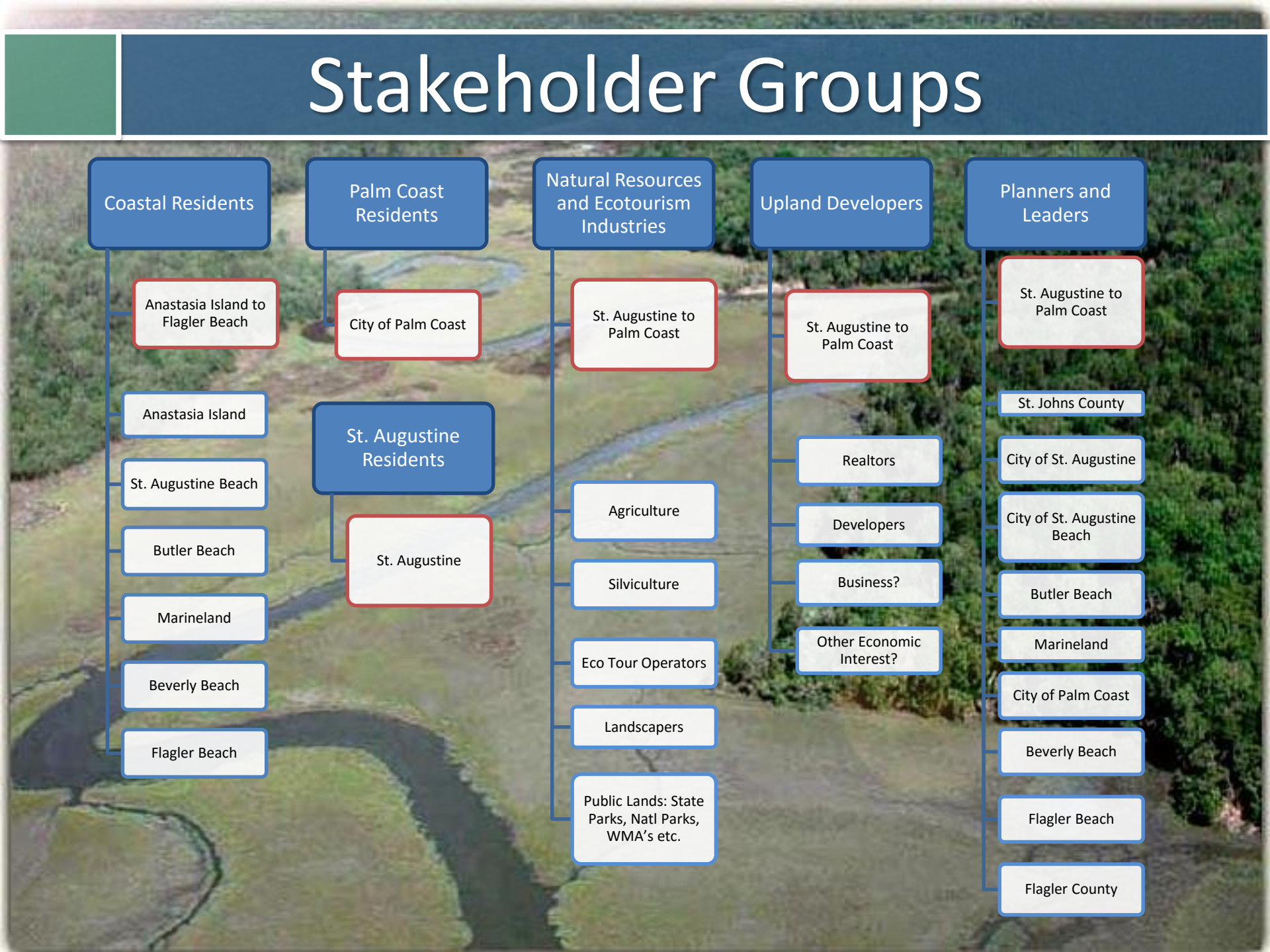
Study Area


DUVAL
Ponte Vedra
SR A1A
Guana Lake
Guana River
I-95
Tolomato River
St. Augustine Inlet
ST. JOHNS
St. Augustine Beach
SR 207
Matanzas River
SR 206
Matanzas Inlet
Pellicer Creek
GTMNERR Boundary
0 4 8 Miles
FLAGLER
Palm Coast

Supporting Investigators

- Dr. Kathryn Frank, PI
- Dr. Dawn Jourdan, *Collaboration Lead*
- Prof. Bob Grist, *Visualization & Communications*
- Dr. Tom Hoctor, *Habitat Migration Corridors*
- Dr. Paul Zwick, *Geospatial Analysis*
- Dr. Greg Kiker, *Sea Level Rise Affecting Marshes Model*
- Dr. Anna Linhoss, *Sea Level Rise Affecting Marshes Model*
- Dr. Russell Watkins, *Model Coordination & Evaluation*
- Mr. Michael Volk, *Habitat Migration Corridors*
- Dr. Maia McGuire, *Collaboration & Outreach*
- Thomas Ruppert, Esq., *Adaptation Strategies*

Stakeholder Groups



Three Year Work Plan

Phase 1: Stakeholder Workshop

- Work with interested stakeholders to understand the potential implications of sea level rise in the Matanzas basin.

Phase 2: Large Public Workshops

- Analyze and compare possible future development and ecological conservation scenarios.

Phase 3: Final Open Meeting

- Identify and promote adaptation tools to bring future development and conservation strategies into fruition.

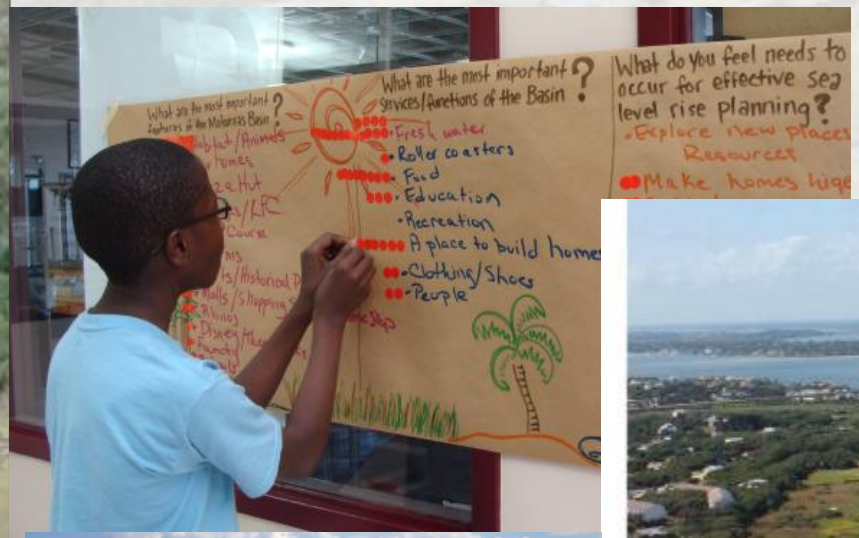
Stakeholder Workshops

- Invited Participants (100 reached)
  - Coastal property owners (St. Augustine to Palm Coast)
  - Upland property owners
  - Natural resource managers Ecotourism operators
  - Planners and local politicians

Large Public Workshops

- Presented what we learned and proposed adaptation preferences and potential locations for conservation corridors.
- Gathered input regarding future development patterns----infill development preferred.

Extra Efforts



Final Open Meeting

- Open invitation (Reached @ 100).
- Steering committee presented topical posters to public.

Lessons Learned

A Few Lessons Learned

- Climate science is difficult to decipher.
  - SAR allows locals to become familiar with science and how forecasts can build on local values.
  - Uncertainty is still a painful truth.
- Politics are relevant.
  - Maybe it doesn't matter if humans are causing climate change to happen.
- Difficult messages are better delivered by citizen experts.
- Incremental planning is a valuable way for local communities to begin dealing with longterm problems.

Thank you