

Rising sea level is not a future issue, anymore than aging is.

by Dr. Chris Marsh, LowCountry Institute

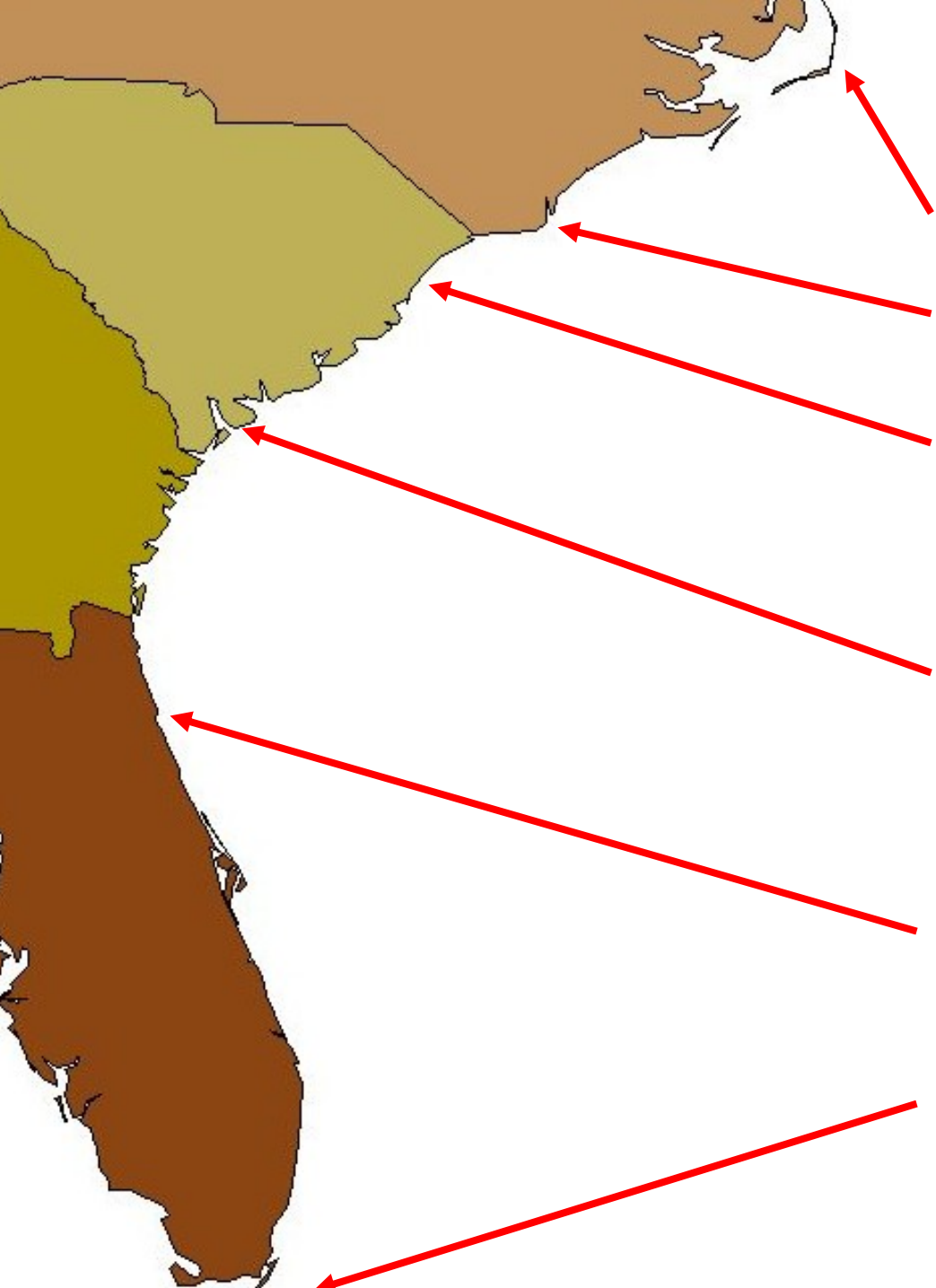


Marsh Edge



**Former
uplands**





Tidal Amplitudes

Oregon Inlet 2 ft

Wilmington 4 ft

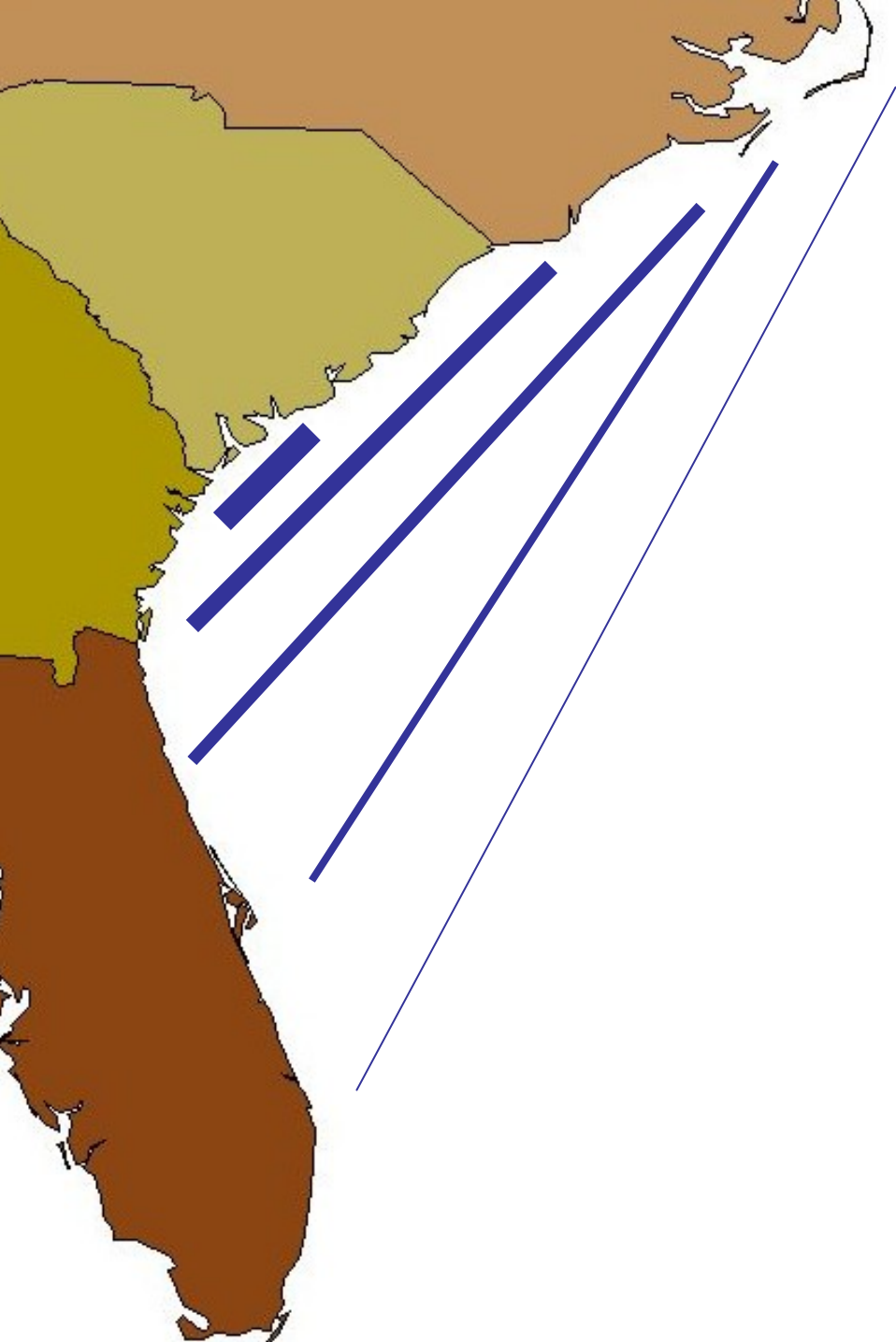
Myrtle Beach 5 ft

Hilton Head 8 ft (PRS)

Baileys Landing 8.5 ft (PRS)

Jacksonville 2.5 ft

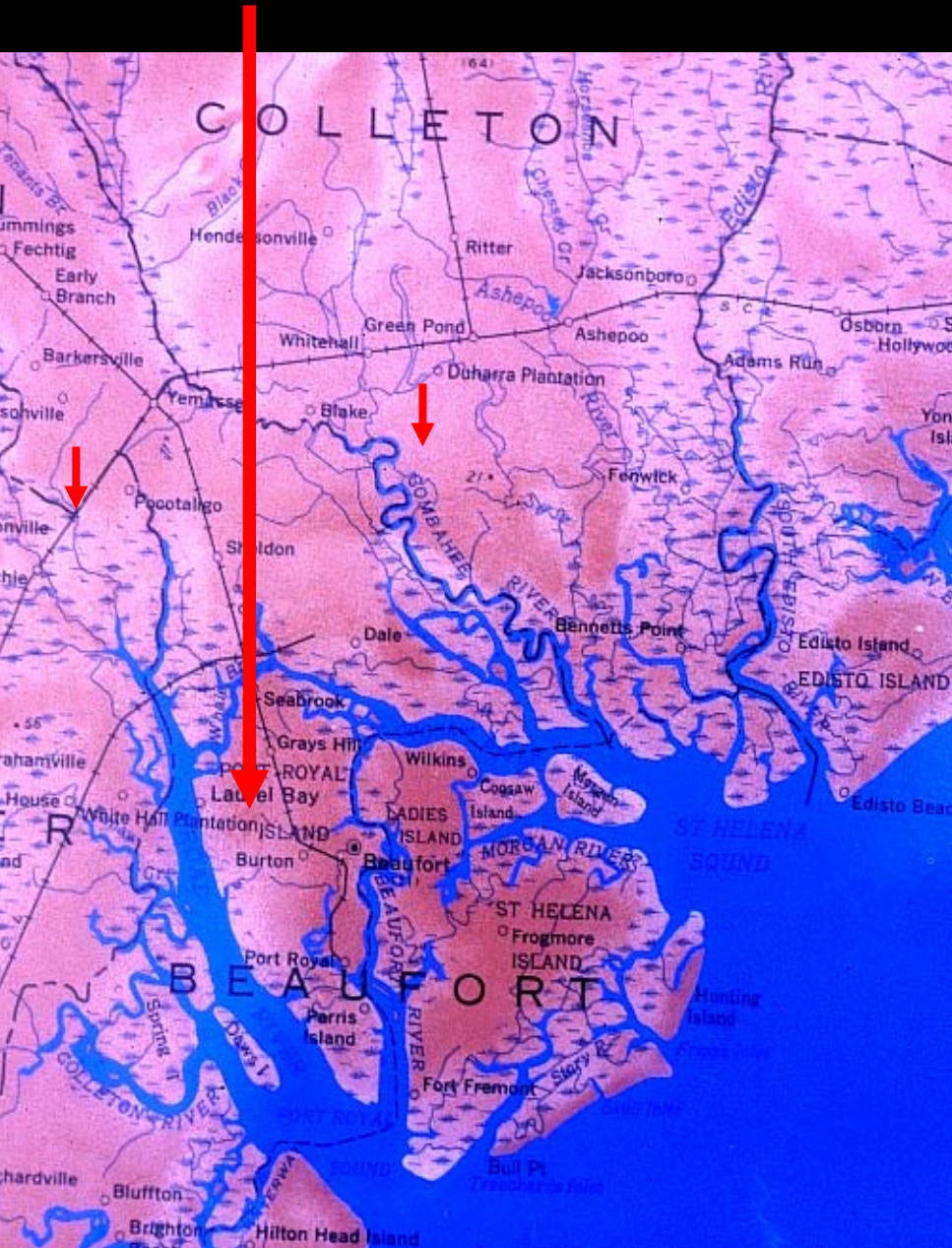
Vaca Key 1 ft



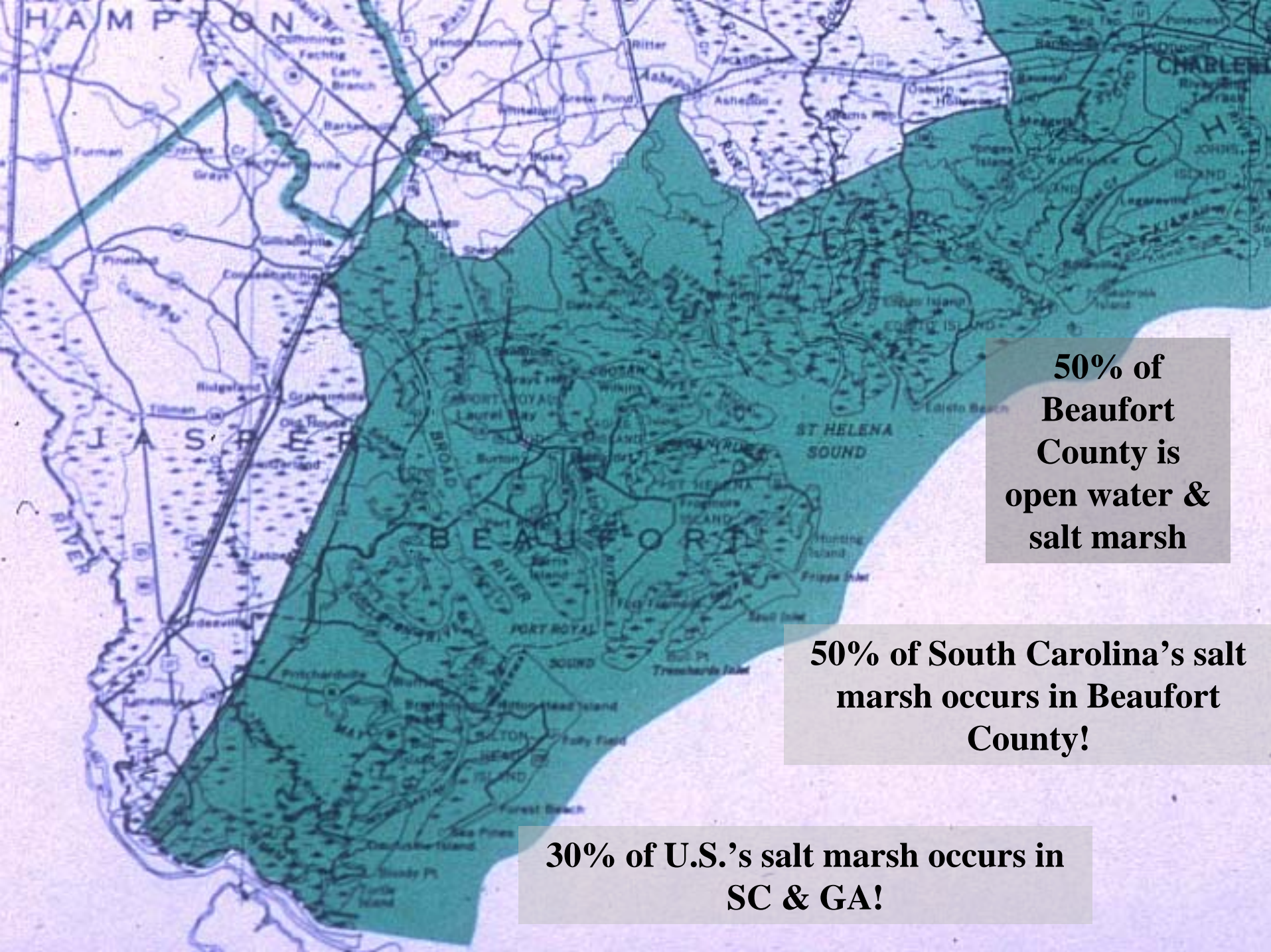
**The same amount
of water is pushed
into a smaller &
smaller area**

**Port Royal
Sound has
highest tides in
Southeast**

Flooded coast with sea islands & small black water rivers



created from Santee sediment



50% of Beaufort County is open water & salt marsh

50% of South Carolina's salt marsh occurs in Beaufort County!

30% of U.S.'s salt marsh occurs in SC & GA!

Proposed Actions Today for a Future Problem

Issue: Santee River delta provides **only** source for new sediment (sand) for future barrier island accretion

Actions:

- Determine how to allow Santee's sediment to move unimpeded to coast (remove dams?)
- Do a cost-benefit analysis of value of lakes vs. sand for coast & explore alternative ways to capture hydroelectric energy



Proposed Actions Today for a Future Problem

Issue: Francis Marion National Forest (near Santee Delta), ACE Basin and the Waccamaw-PeeDee delta will be the future locations of South Carolina's salt marshes.

Actions:

- Prepare a mitigation plan for people living in out parcels in these areas
- Have Federal authorities expand western boundary of Francis Marion National Forest with contingency of allowing subsidized housing in the expansion area.



Proposed Actions Today for a Future Problem

Issue: All current impoundments, an ecologically, important habitat, will be lost.

Action:

- Scientists must work with regulatory agencies to quantify the ecological value of impounded wetlands
- A GIS-based plan should project where future tidal wetlands will occur and what percentage will be allowed to be impounded.



Proposed Actions Today for a Future Problem

Issue: Inform property owners of risk associated with buying coastal properties

Action:

Buyer Beware!! Require a clause in all real estate transactions to be initialed by buyer that states:

- the elevation of the property
- that local and state government are not required to continue to provide services to properties in the future that are encompassed by tidal waters.
- These conditions may take effect as early as 2040.



Proposed Actions Today for a Future Problem

Issue: forests bordering salt marshes will be dying and converting to maritime scrub.

Actions:

Local municipalities should:

educate property owners about planting salt tolerant or fast growing species on low-lying marsh front properties.



Proposed Actions Today for a Future Problem

Issue: Low-lying habitats (including marsh islands) are the last to be annexed by communities (because locals know better than to build there).

Action:

Local municipalities should:

- post in their office a topographic map of their area having 1 foot contours with 3 ft, 6 ft, and 9 ft. contours in bold (to delineate future shorelines)
- include rising sea level as a cost when considering annexations.*

(This includes shortening the period to recoup investments and defining what services will and will not be provided to neighborhoods that become houses on mounds of dirt surrounded by salt water.)