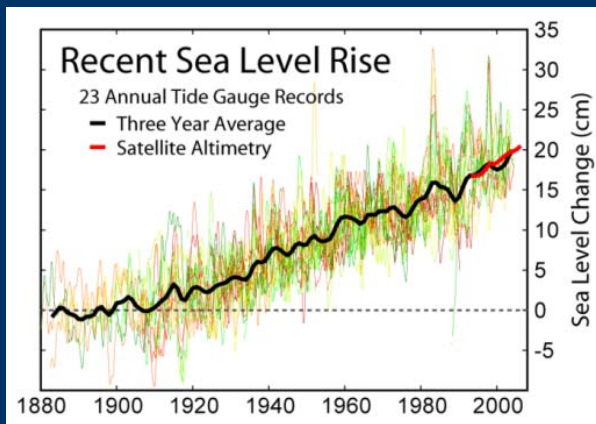


Chatham County's Local Issues and Drivers

Chatham County Roadmap for Adapting to Coastal
Risk Workshop
Savannah, Georgia
March 9-11, 2010



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Sea Level Rise



Storm Surge Inundation



Shallow Coastal Flooding



Coastal Erosion

CHATHAM COUNTY'S FOUR PRIORITY HAZARDS



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Shallow Coastal Flooding

due to rainfall, high tide or a combination



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How could we address shallow coastal flooding?

What we have been doing

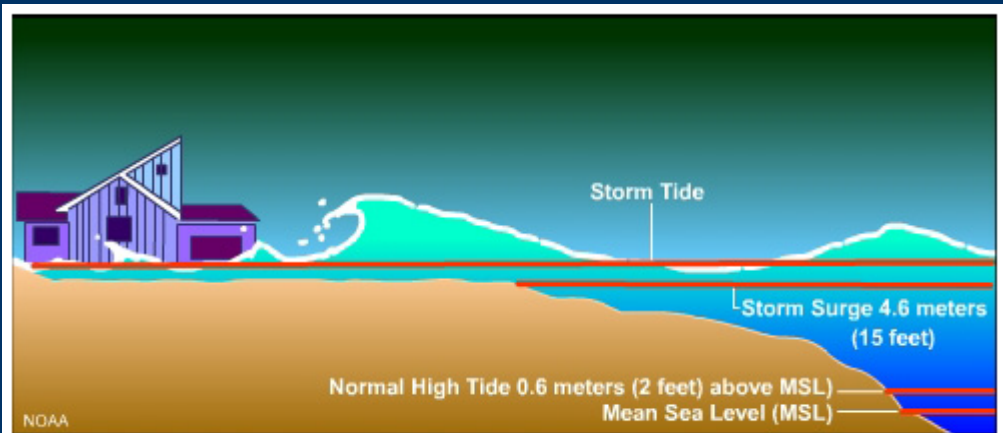
- Build more roads at higher elevations
- Construct more stormwater pumping stations
- Regard real estate development as the primary engine for the economy

What we may consider doing

- Invest in green and open space
- Look for and support other engines to maintain the economy
- Protect the community's right to a clean, healthy, and safe environment
- Invest in public transit



Storm Surge Inundation



Storm surge is a large dome of water, often 50 to 100 miles wide, that sweeps across the coastline where a hurricane makes landfall. The storm tide is the combination of the storm surge and the astronomical tide.

The hurricane that hit Tybee in 1893 had an estimated storm surge of 19 feet.



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How could we address storm surge inundation?

What we have been doing

- Believe that it will not happen here because of the shape of the coastline
- Maximize the scenic beauty of the beach by living as close as possible to water
- Depend on mechanical systems (dredging) to protect the coastline
- Drop “barrier” from the coastal lexicon

What we may consider doing

- Remember that it happened here and that it will happen again
- Develop beachfront property the way our great-grandparents did: cautiously and respectfully
- Develop and maintain natural systems to protect the coastline
- Remember that whatever we do on a barrier island is temporary



Sea Level Rise- Tybee at One Meter Rise



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How could we address sea level rise?

What we have been doing

Don't think about it

Don't think about it

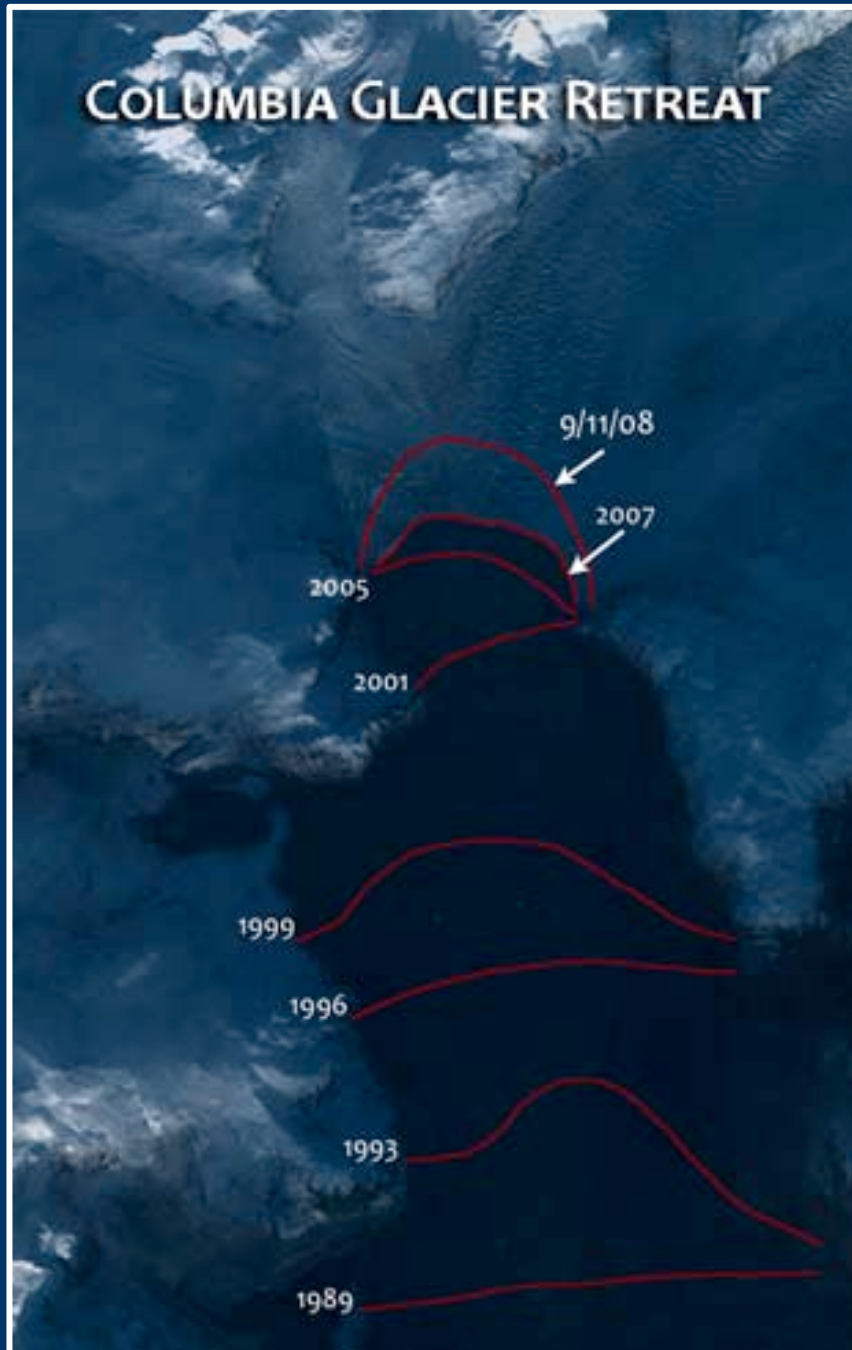
Don't think about it

What we may consider doing

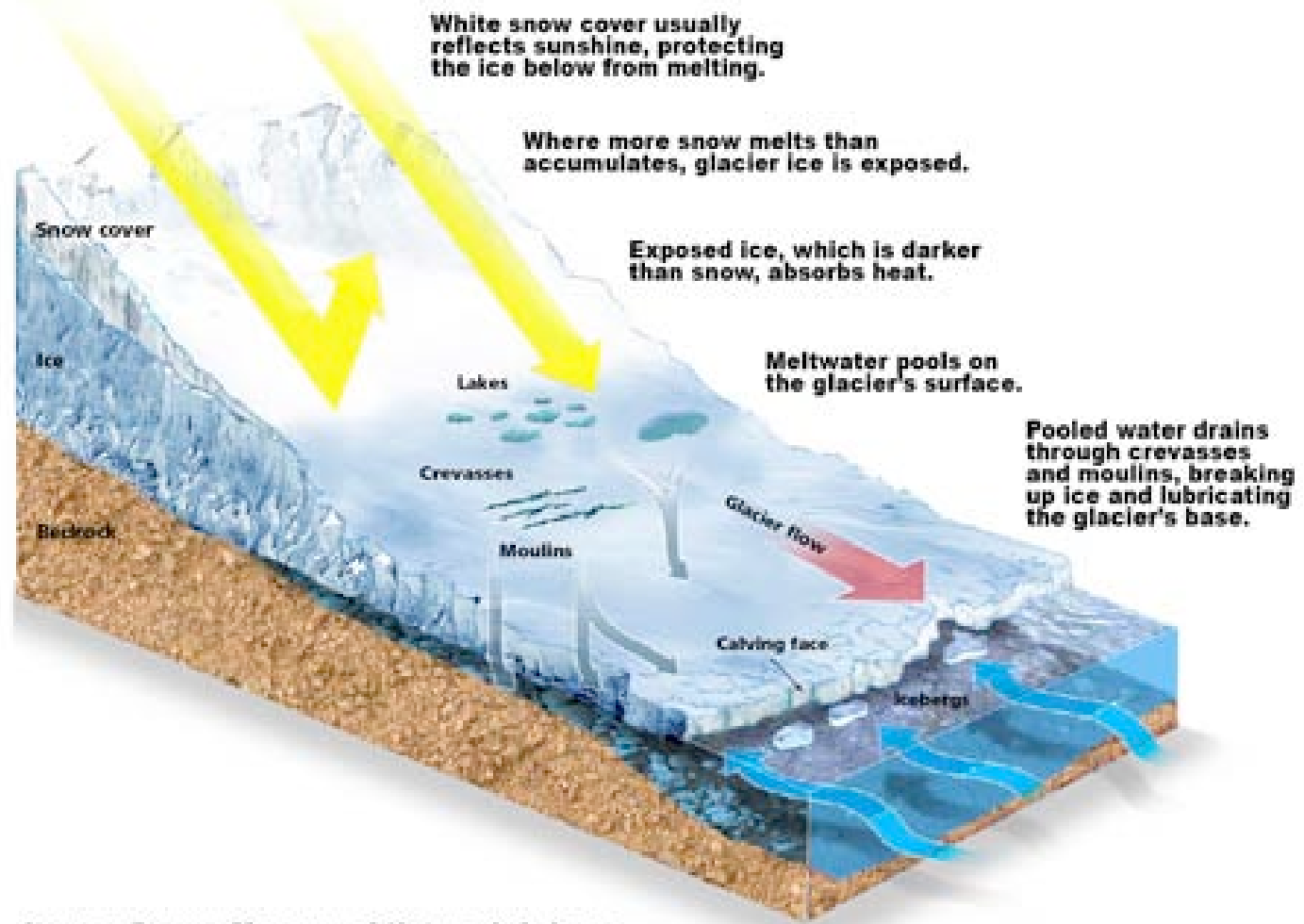
- **Begin to visualize what could happen if the icecaps continue to melt**
- **Begin to establish long range policies to minimize damage to vulnerable areas**
- **Begin to understand how salt water intrusion will affect our ecosystem and way of life**



COLUMBIA GLACIER RETREAT



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Source: Denver Museum of Nature & Science



Erosion

What happens when we no longer have funds to re-nourish our beaches?



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How could we address coastal erosion?

What we have been doing

Build as close to the beach as possible and depend on Congress to appropriate funds to re-nourish eroding beaches

What we may consider doing

Establish a new sand dune protection line based upon a worst case scenario: sea level rise, Savannah Harbor dredging, hurricane storm surge, and lack of funds for re-nourishment



Chatham County's Specific Issues Driven from Our Local Hazards

1. Infrastructure protection with regards to transportation planning and implementation
2. Buffer implementation and protection to mitigate shallow coastal flooding from higher tides and sea level rise
3. Balancing economic development and natural resource protection (shellfish beds, etc.)
4. Risk Communication (education and outreach of elected officials, developers, internal staff) specific to the specific coastal hazards and climate threats
5. The desire to implement specific management strategies (smart growth, conservation, hazards and effects of climate threats) focusing around the effect of urban sprawl, population growth and demands on the coastal environment

