

**BROWARD COUNTY
CLIMATE CHANGE TASK FORCE
Scientific and Technical
Subcommittee**

Presentation to the
Broward County Climate Change Task Force
February 19, 2009

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Chair, Science and Technical Subcommittee
Vice President, CDM

Science and Technical Subcommittee

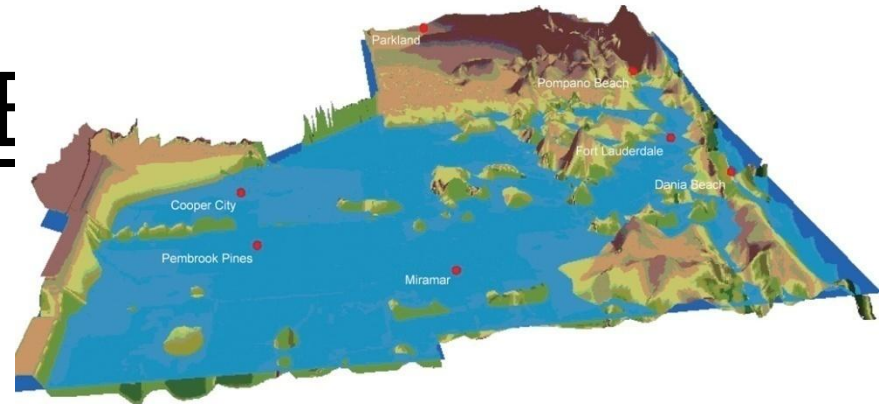
Areas of Focus

1. Summary of Evidence
2. Sea Level Rise
3. Changes in Climate
4. Uncertainties
5. Scientific Issues Associated with Successful Adaptation

SUMMARY OF EVIDENCE

- IPCC
- NAS-NRC Report on Climate Change
- COE draft report
- Hal Wanless Data
- Global CO₂-Increasing trend and tipping point analysis
- Thermal expansion of oceans
- Glacier loss
- Greenland & Antarctica melting
- Key West tide gauge
- Current impacts

SEA LEVEL

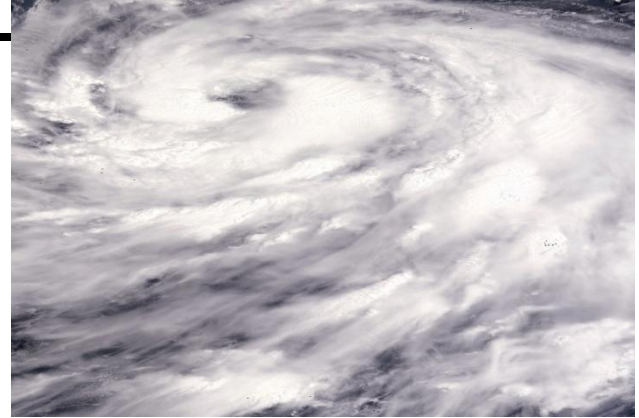


2 Meter Sea Level Rise

- Projections – range
- Scientific opinion
- Tides, high and low, and spring
- Storm surges
- Lidar topographic information
- Satellite imagery
- Salt water intrusion – modeling
- Property damage
- Beach erosion
- Everglades impacts

CHANGES IN CLIMATE – WHAT DO WE KNOW?

- Temperature increases
- Weather patterns
- Rainfall
- Hurricanes - storm frequency & intensity
- Modeling
- Biodiversity impacts – coral bleaching, fisheries, terrestrial changes



UNCERTAINTIES

- Rates
- Time
- Magnitude
- Data bases
- Risks

SCIENTIFIC ISSUES ASSOCIATED WITH SUCCESSFUL ADAPTATION

- Topography
- Porous geology of the Biscayne Aquifer
- Existing flood control system