

# SE FLORIDA REGIONAL CLIMATE CHANGE COMPACT



**Larry Johnson, P.E., Palm Beach County Water Utilities**

**Presentation at  
“Public Water Supply Utilities Climate Impacts Working Group”  
WORKSHOP TWO , Thursday, January 20, 2010**

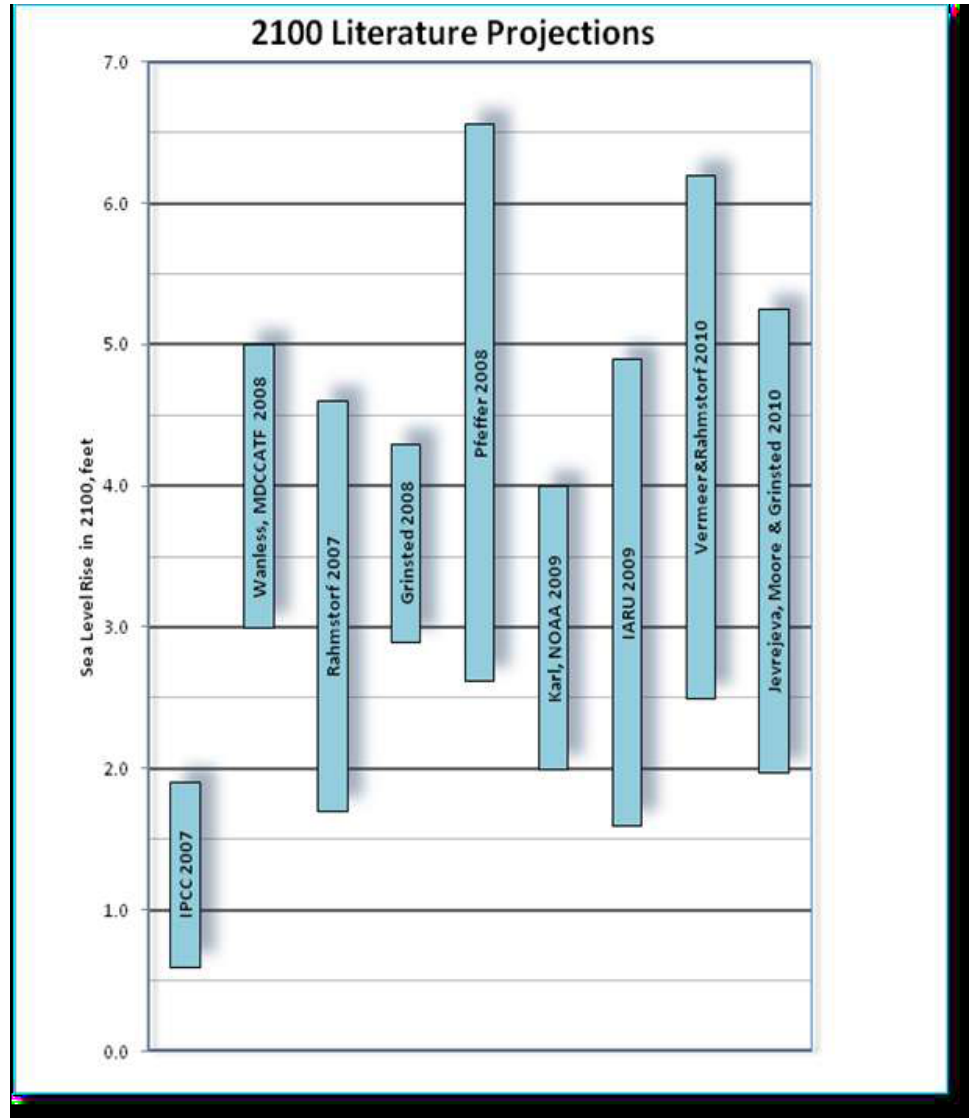
# SE FLORIDA REGIONAL CLIMATE CHANGE COMPACT



# GOALS

- Develop strategies to respond to climate change impacts
- Develop a SE FI Regional Climate Change Action Plan
- Work on federal and state climate policies
- Pursue federal and state grant funding

# SEA LEVEL RISE PREDICTIONS

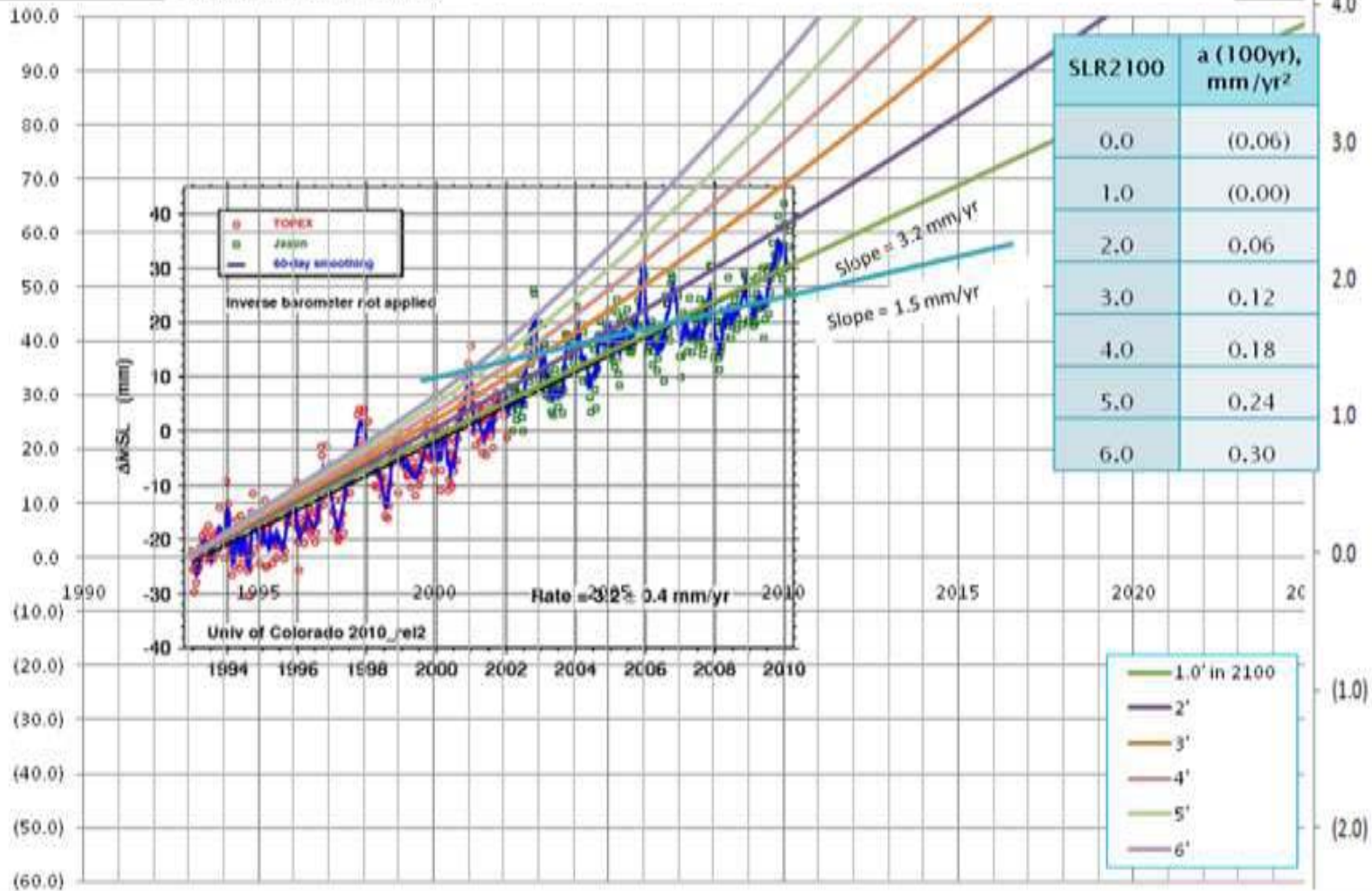


# Recent Satellite Altimetry and Short-term Forecasts

Starting in 1993, 3.2 mm/yr

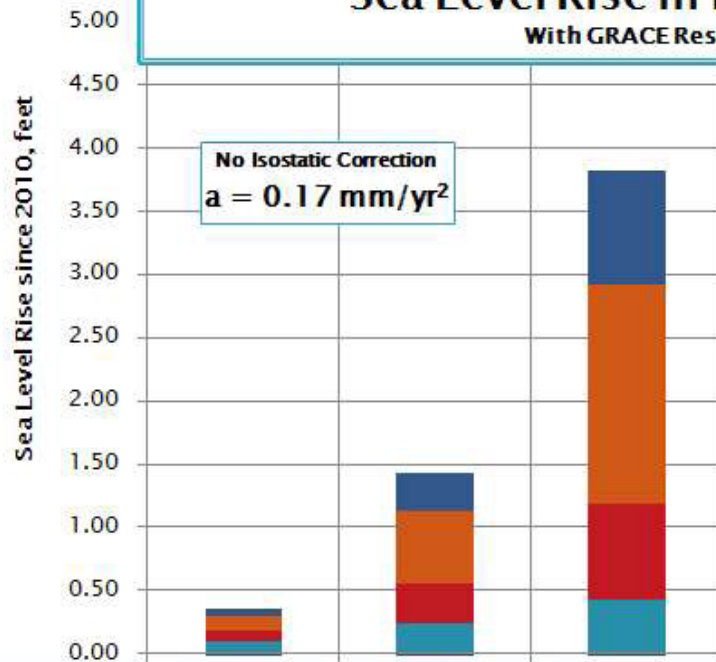
SLR, mm

SLR, inches

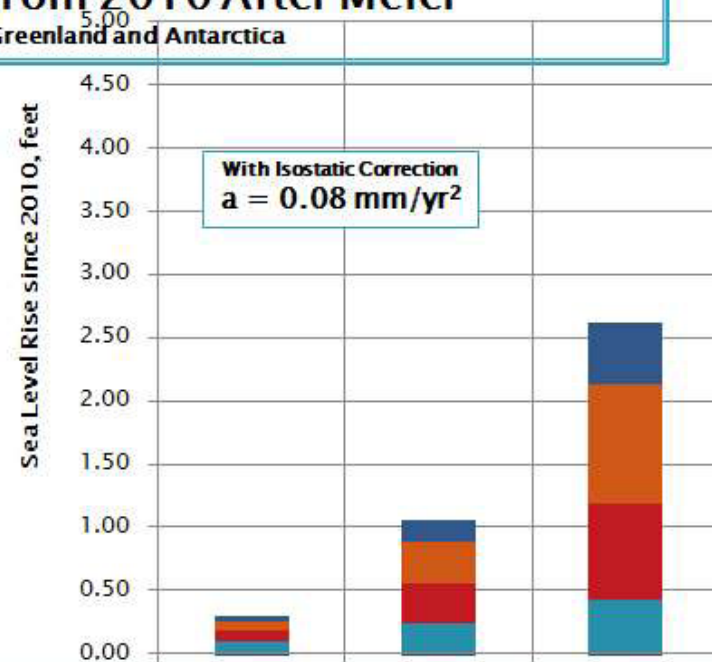


## Sea Level Rise in feet from 2010 After Meier

With GRACE Results for Greenland and Antarctica

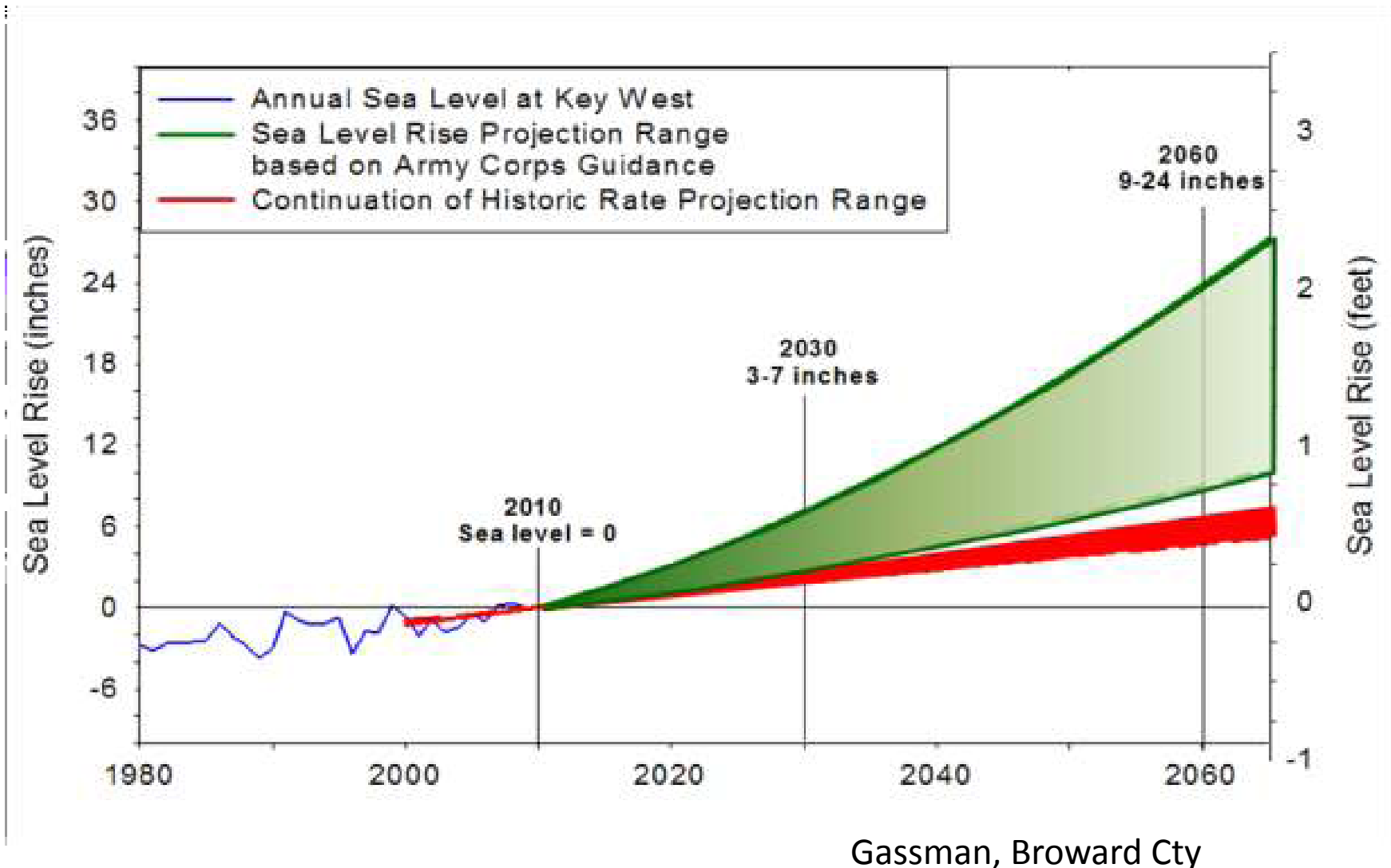


|                          | 2030        | 2060        | 2100        |
|--------------------------|-------------|-------------|-------------|
| Thermal Expansion        | 0.09        | 0.23        | 0.42        |
| Glaciers and ice caps    | 0.09        | 0.32        | 0.76        |
| Greenland Ice Sheet      | 0.11        | 0.57        | 1.74        |
| West Antarctic Ice Sheet | 0.06        | 0.30        | 0.89        |
| East Antarctic Ice Sheet | -0.02       | -0.07       | -0.18       |
| <b>Global total</b>      | <b>0.34</b> | <b>1.36</b> | <b>3.64</b> |



|                          | 2030        | 2060        | 2100        |
|--------------------------|-------------|-------------|-------------|
| Thermal Expansion        | 0.09        | 0.23        | 0.42        |
| Glaciers and ice caps    | 0.09        | 0.32        | 0.76        |
| Greenland Ice Sheet      | 0.07        | 0.33        | 0.94        |
| West Antarctic Ice Sheet | 0.04        | 0.18        | 0.49        |
| East Antarctic Ice Sheet | -0.02       | -0.07       | -0.18       |
| <b>Global total</b>      | <b>0.28</b> | <b>0.99</b> | <b>2.45</b> |

# SEA LEVEL RISE PREDICTIONS



# VULNERABILITY ANALYSIS

- Regional Compact Technical Committee was tasked with analyzing impacts of 1, 2, and 3 foot sea level rise using SFWMD's inundation grids (50ft cell size); Broward County has completed initial analysis
- *•Regional Vulnerability Planning Workshop*
- ☐Ports/Airports ☐Railroads
- ☐Wastewater Treatment Plants  
☐WellfieldProtection Areas
- ☐Landfills ☐Hospitals
- ☐Emergency Shelters  
Routes ☐Evacuation
- ☐Schools ☐Population (2010  
BEBR)
- ☐Taxable value of property ☐Miles of road
- ☐Endangered Species ☐Future Land Use
- ☐Habitat/Land Use Land Cover



# Example Parcel Impacts

