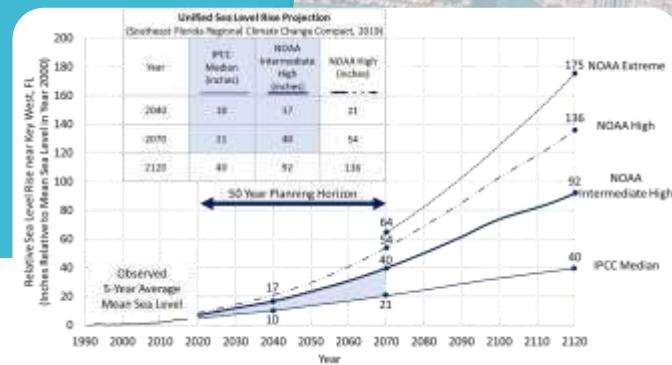
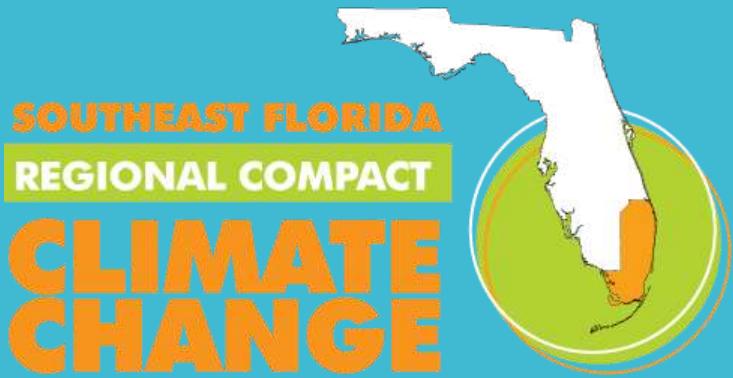
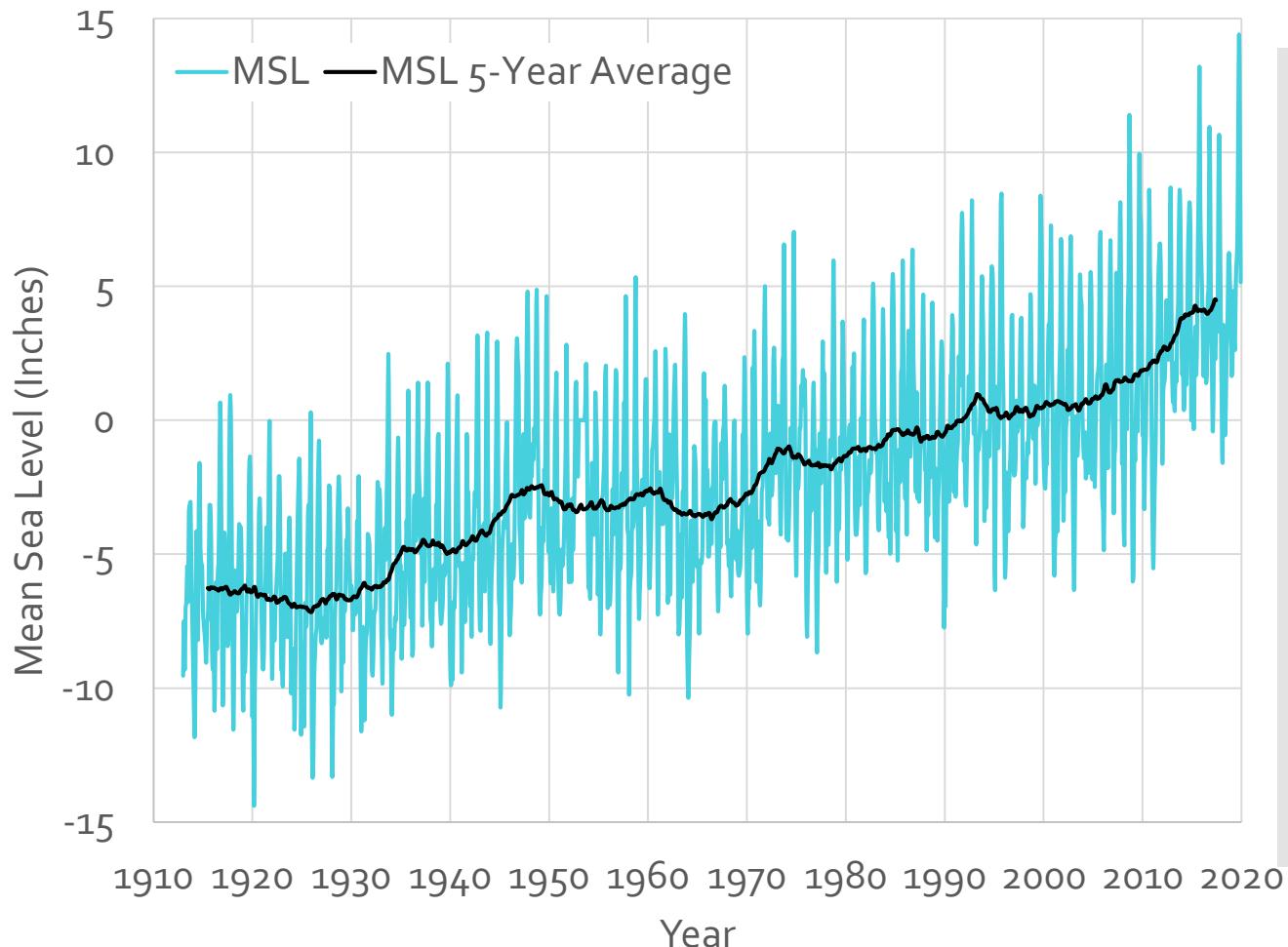


Relevance of Unified Sea Level Rise Projection for Southeast Florida



Rising Sea Levels

Key West Gauge





Overtopping





Seepage



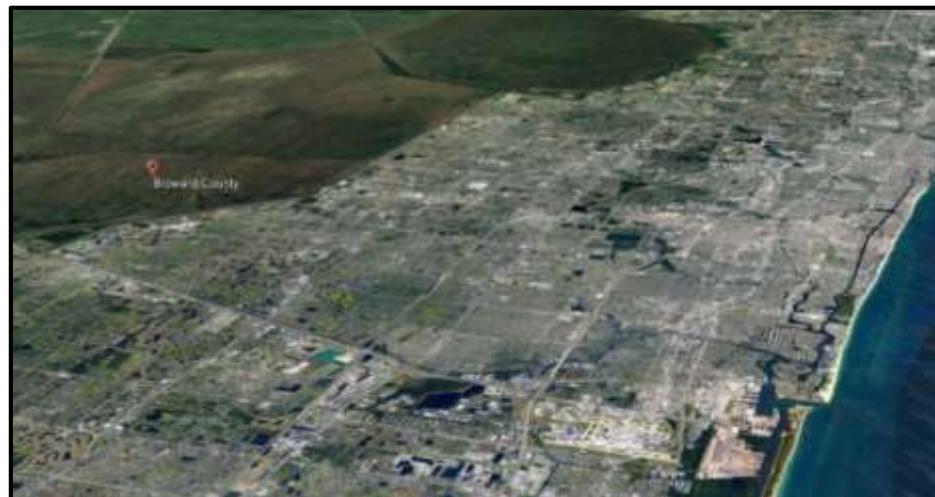
Disruption



*This is not surface flooding, but water table response

Predicted 2070

Groundwater Rise



Biscayne Aquifer

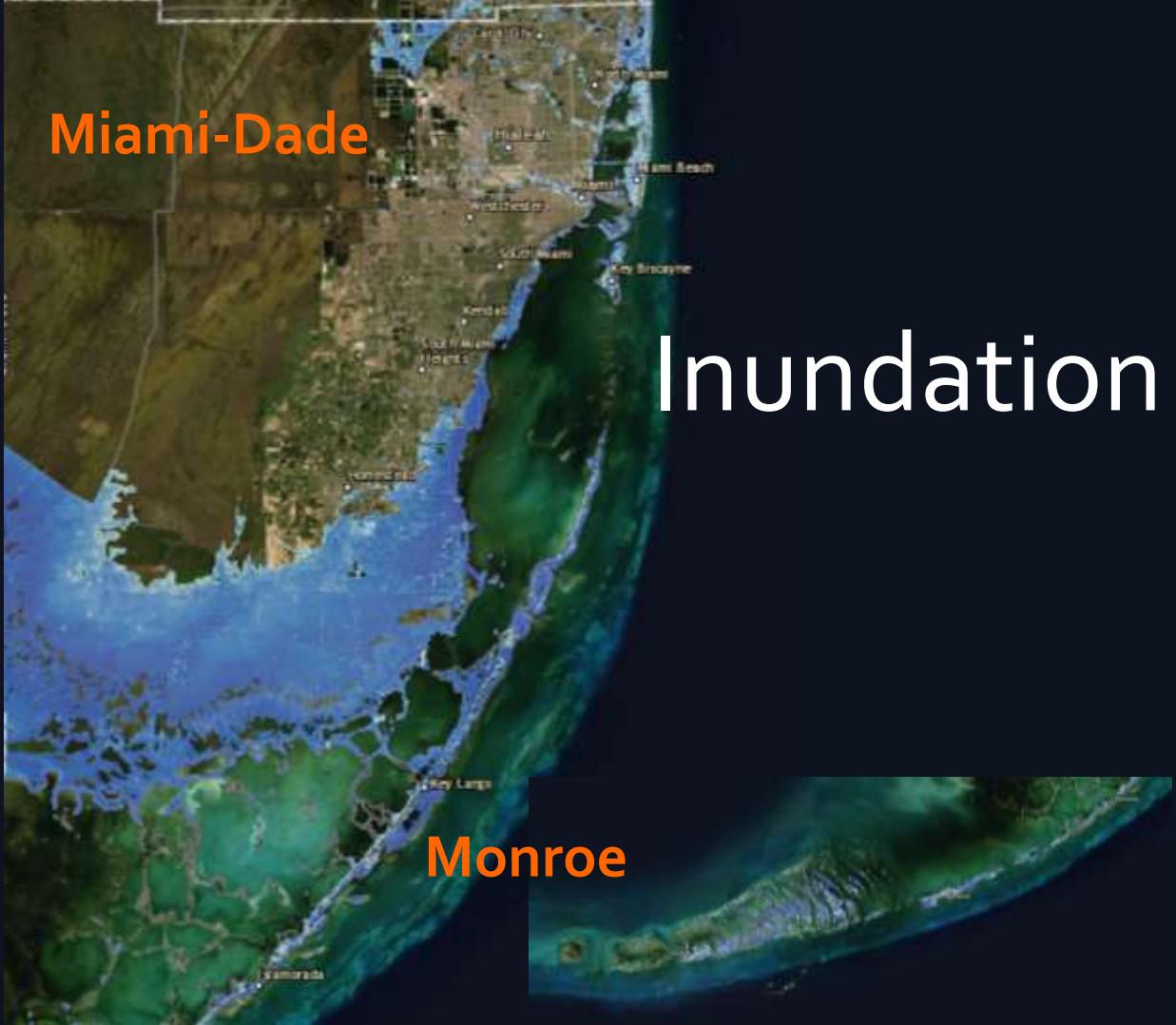
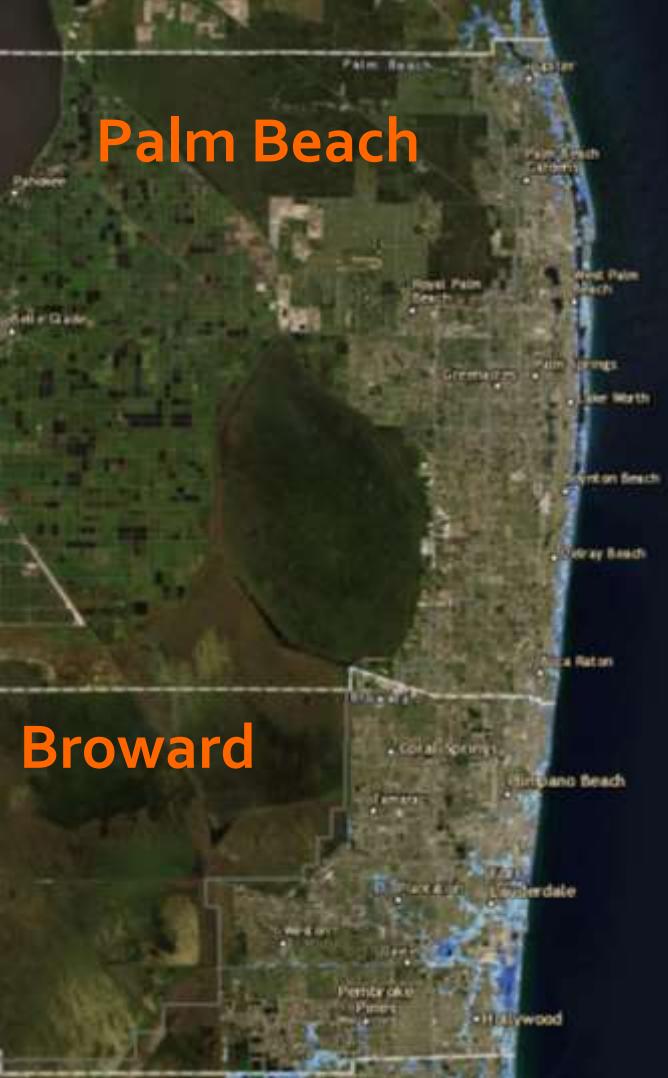
Confining Layer

Floridan Aquifer

Saltwater
Intrusion

2050
sea level

2030
sea level





Rainfall

Storm Surge

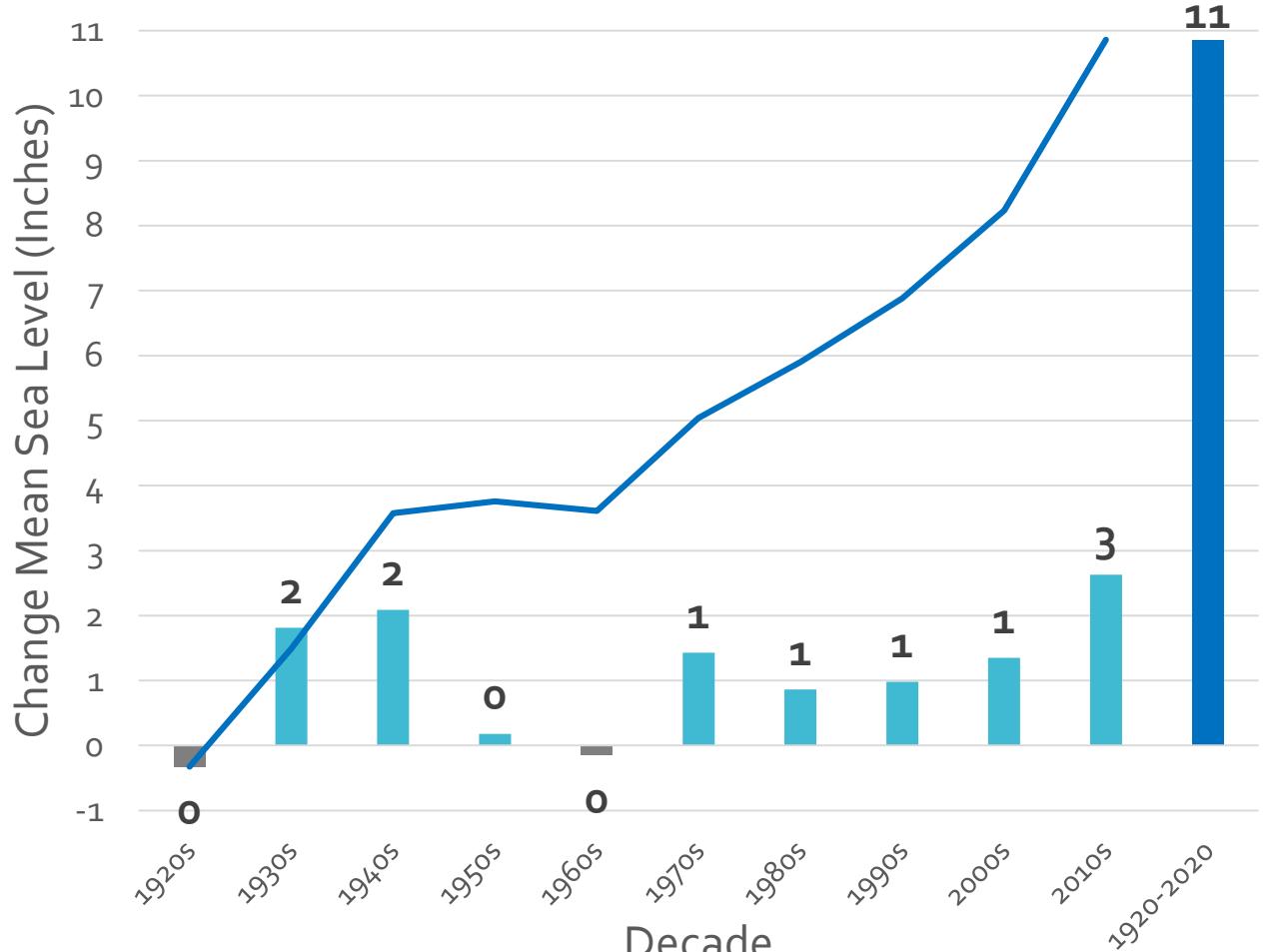


Dave, Flickr Creative Commons

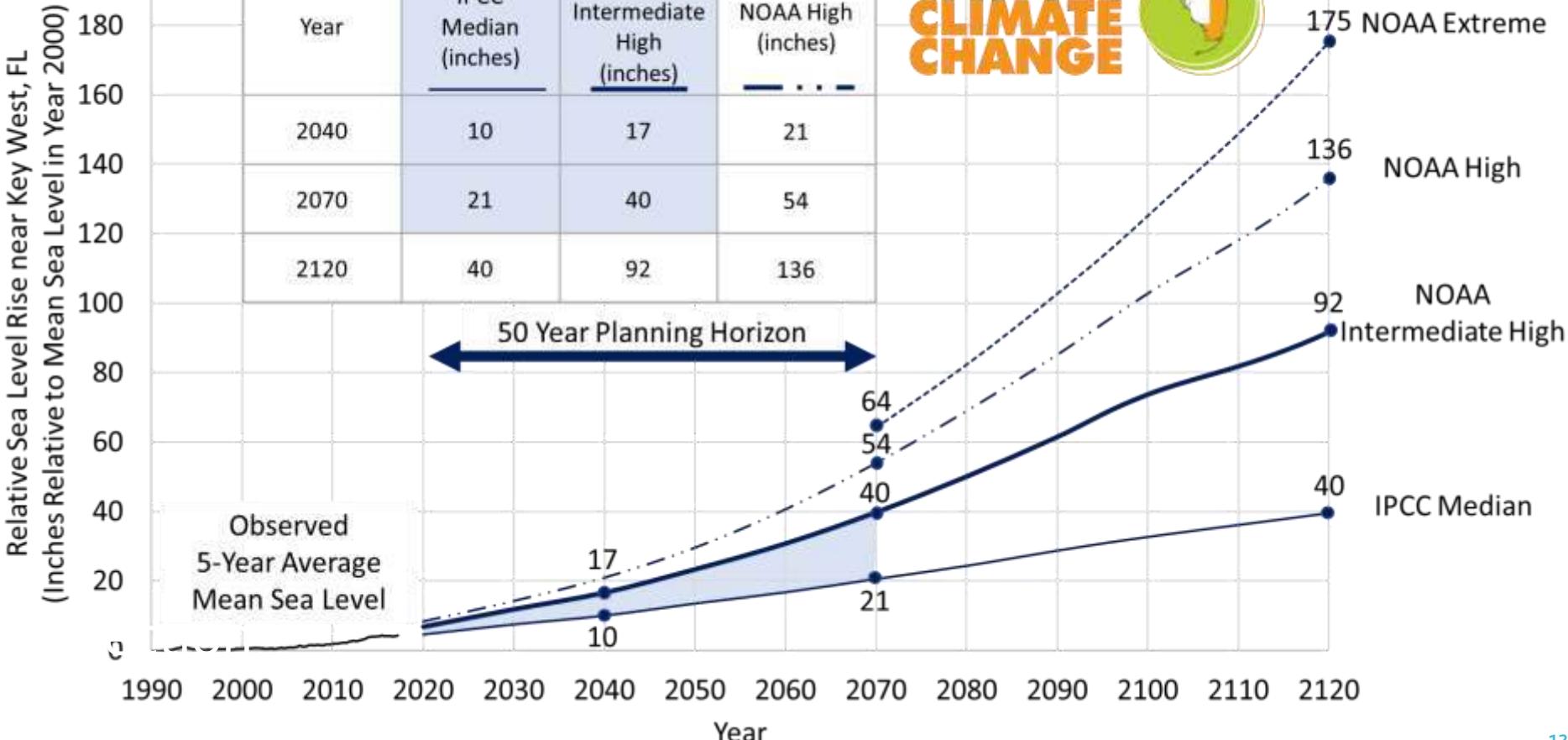
Recent Acceleration

Key West Gauge

**Numbers rounded for simplicity



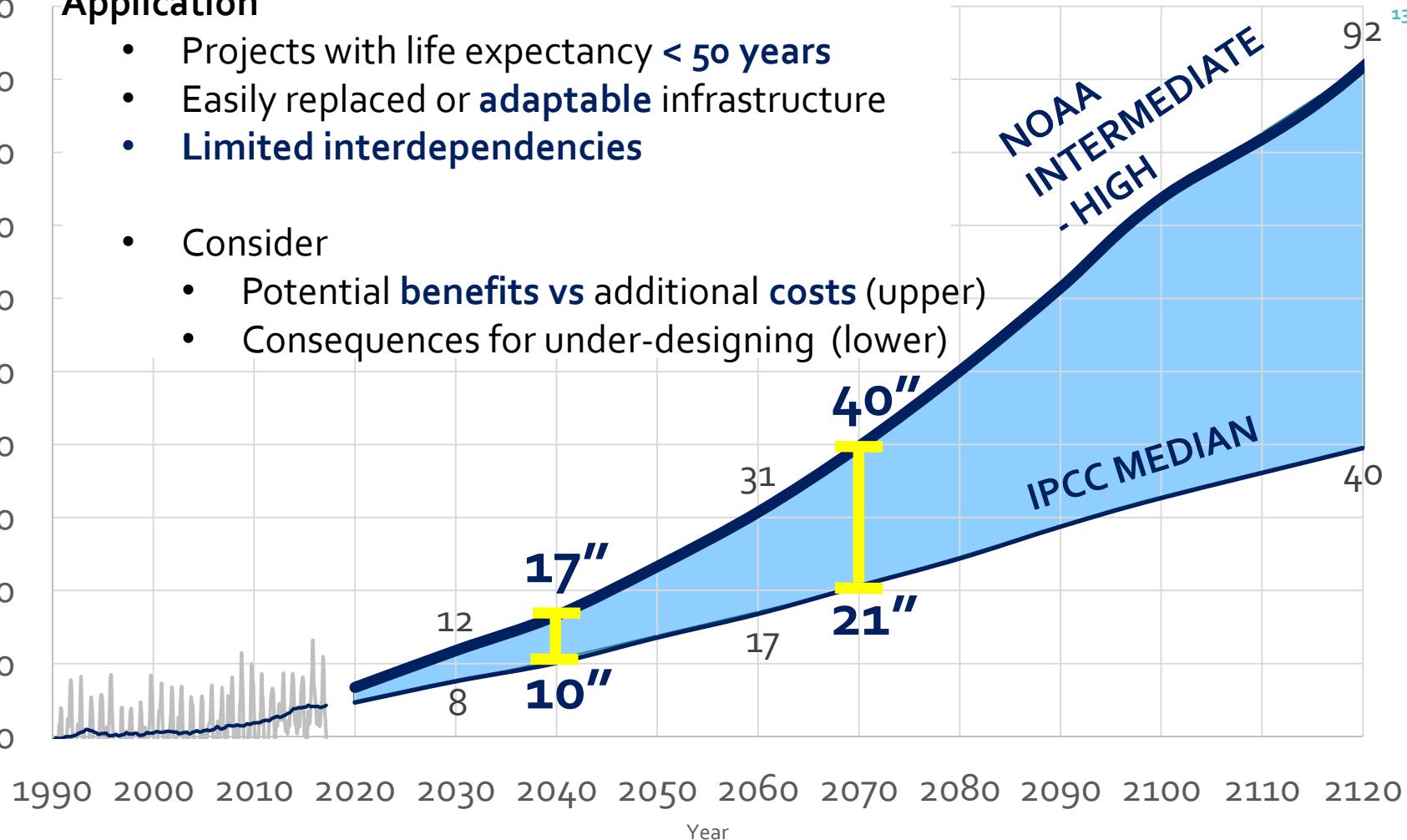
Unified Sea Level Rise Projection
 (Southeast Florida Regional Climate Change Compact, 2019)



Relative Sea Level Rise near Key West, FL (inches relative to mean sea level)

Application

- Projects with life expectancy < 50 years
- Easily replaced or **adaptable** infrastructure
- **Limited interdependencies**
- Consider
 - Potential **benefits vs** additional **costs** (upper)
 - Consequences for under-designing (lower)



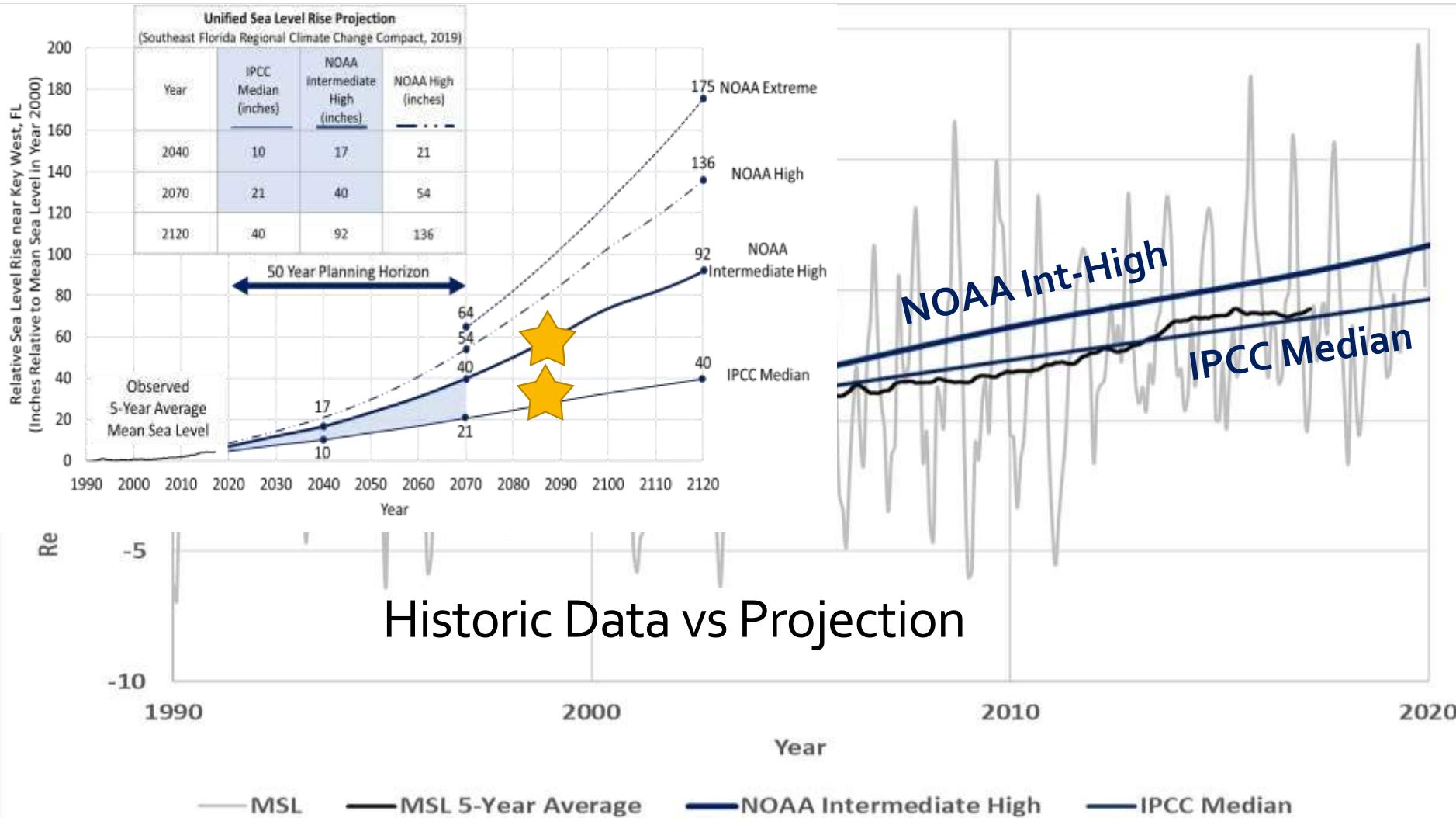
Relative Sea Level Rise near Key West, FL
(inches relative to mean sea level)

200
180
160
140
120
100
80
60
40
20
0

NOAA High

- Application- **risk intolerant critical infrastructure**
 - Planning for projects constructed **after 2060**
 - Projects with design life **>50 years**
 - Not removable/ replaceable
 - Interdependent







Riverwalk, Fort Lauderdale



Before



After



After Adaptation, Building Elevated



Need for Regionally Consistent Adaptation