

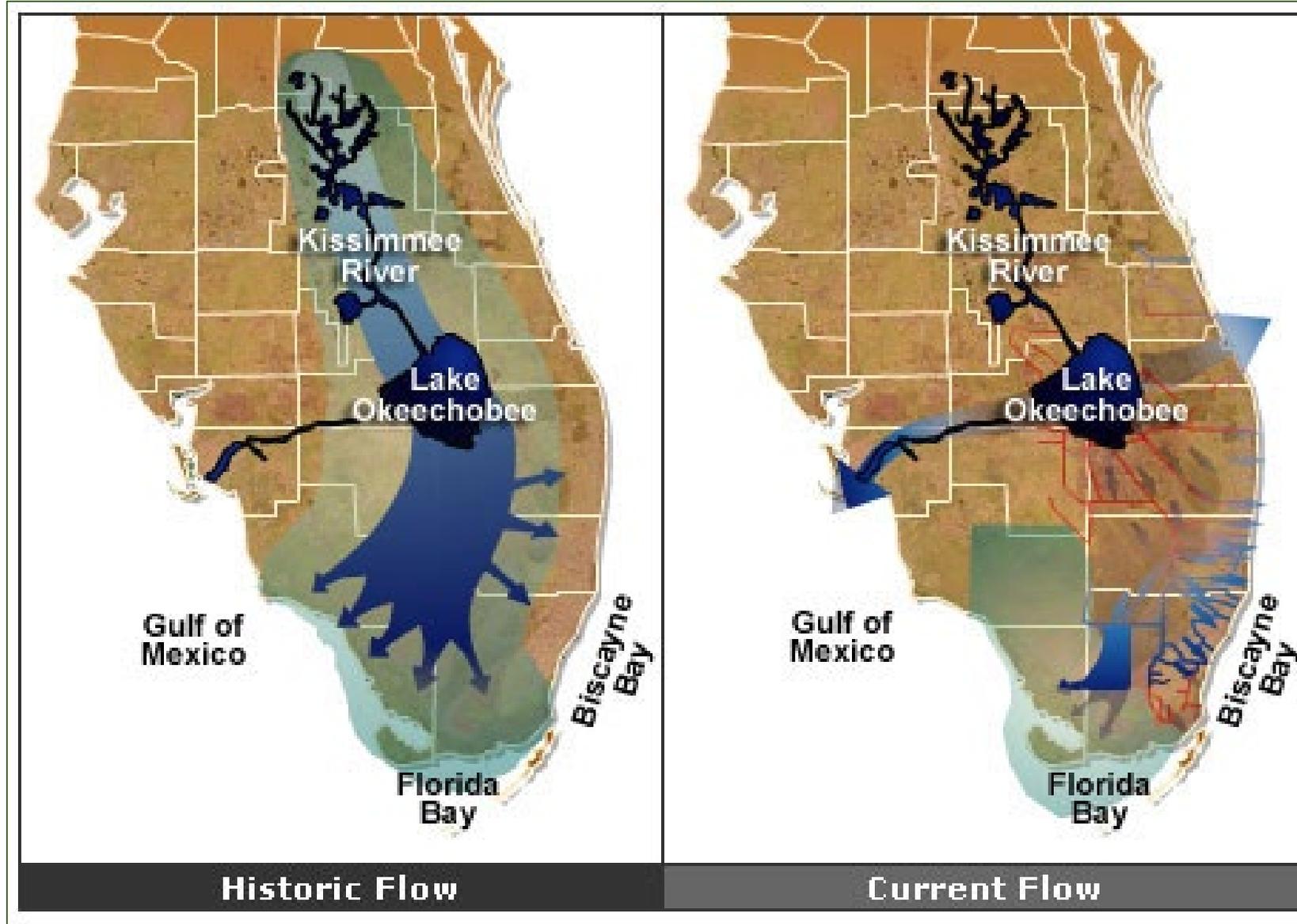
# South Florida Regional Influences and Tidal Flooding and Climate

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- South Florida Program Manager, The Nature Conservancy
- FKNMS Advisory Council, Conservation and Environment Seat 2 of 2
- FKNMS WQPP Steering Committee

## SOUTH FLORIDA REGIONAL INFLUENCES

**Everglades' Restoration (1-1).** Actively engage with the South Florida Ecosystem Restoration Task Force's efforts to restore the quantity, quality, timing and distribution of freshwater flow to the Everglades, Florida Bay, Biscayne Bay, and northern estuaries (Caloosahatchee and St. Lucie).



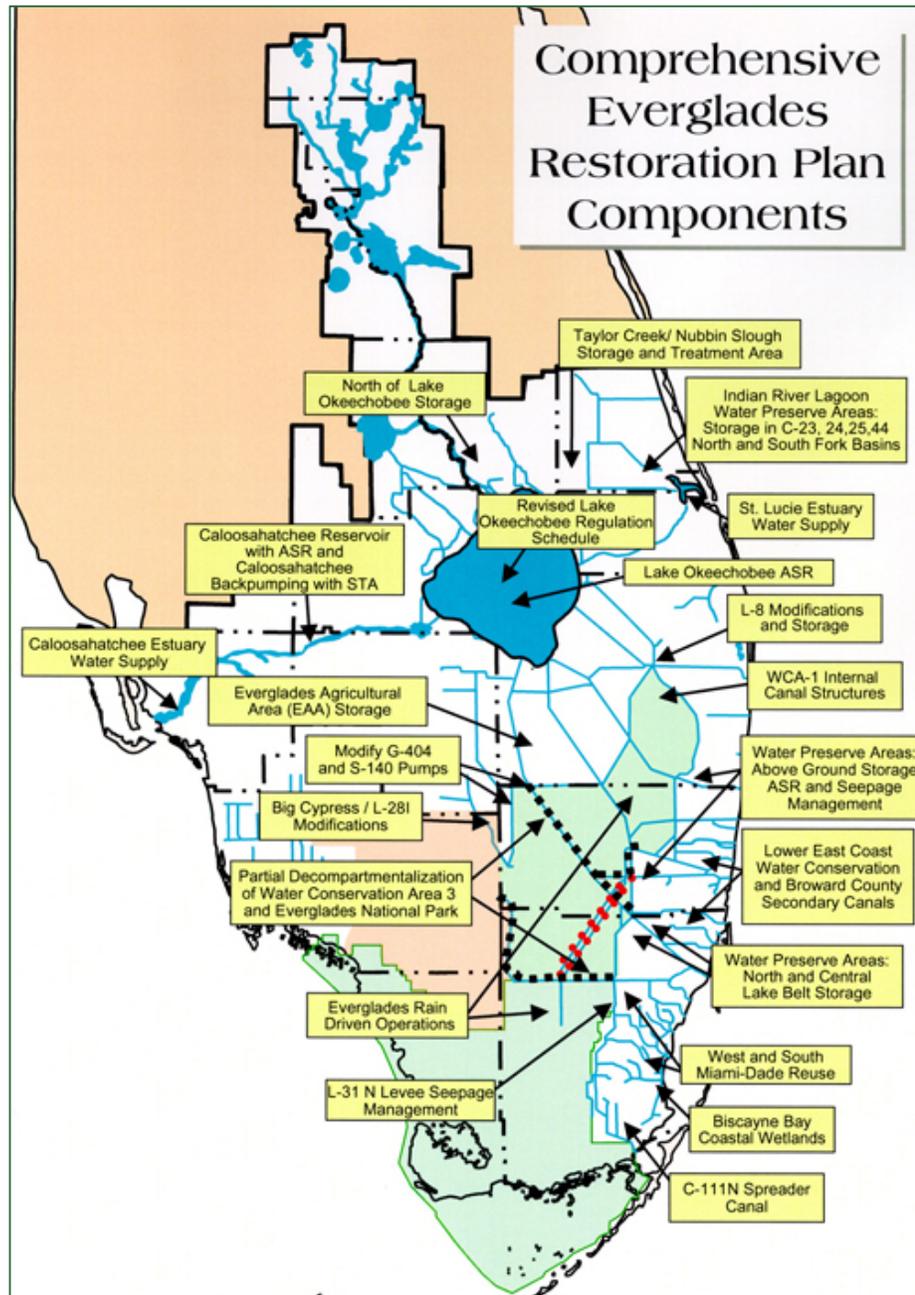


Water Quality Impacts in Florida Bay, Everglades National Park



*Photo: Caloosahatchee River,  
Captains for Clean Water*

# Restoring America's Everglades



- Remove barriers to flow into Everglades National Park.
- Redirect flow away from Caloosahatchee and St. Lucie estuaries and into water treatment areas.
- Clean water to acceptable levels.
- Send clean water south.

## SOUTH FLORIDA REGIONAL INFLUENCES

**Mainland Wastewater Infrastructure (1-2).** Pursue improvements to mainland wastewater infrastructure (closure of outfall pipes, upgrades to aging infrastructure, septic to sewer conversion, etc.). This may include coordination with local governments to develop resolutions and encourage timely and definitive action towards infrastructure improvements.



Wastewater Outfall off Delray Beach

## TIDAL FLOODING AND CLIMATE

**Infrastructure Adaptation for Climate Change (5-2).** Ensure wastewater and stormwater infrastructure is equipped to accommodate changing conditions associated with sea level rise and higher-intensity storms. Assess the ability of existing permitting requirements and facility designs to protect water quality, infrastructure and habitat under changing climate scenarios, and consider alternative design criteria for different types of facilities, levels of use, and/or areas. Identify and incorporate features to promote resilience, such as stormwater retention basins.



A freshwater-dependent pine tree stump rooted in a salt marsh on Big Pine Key



Downtown Key West with a high tide and a heavy rainfall



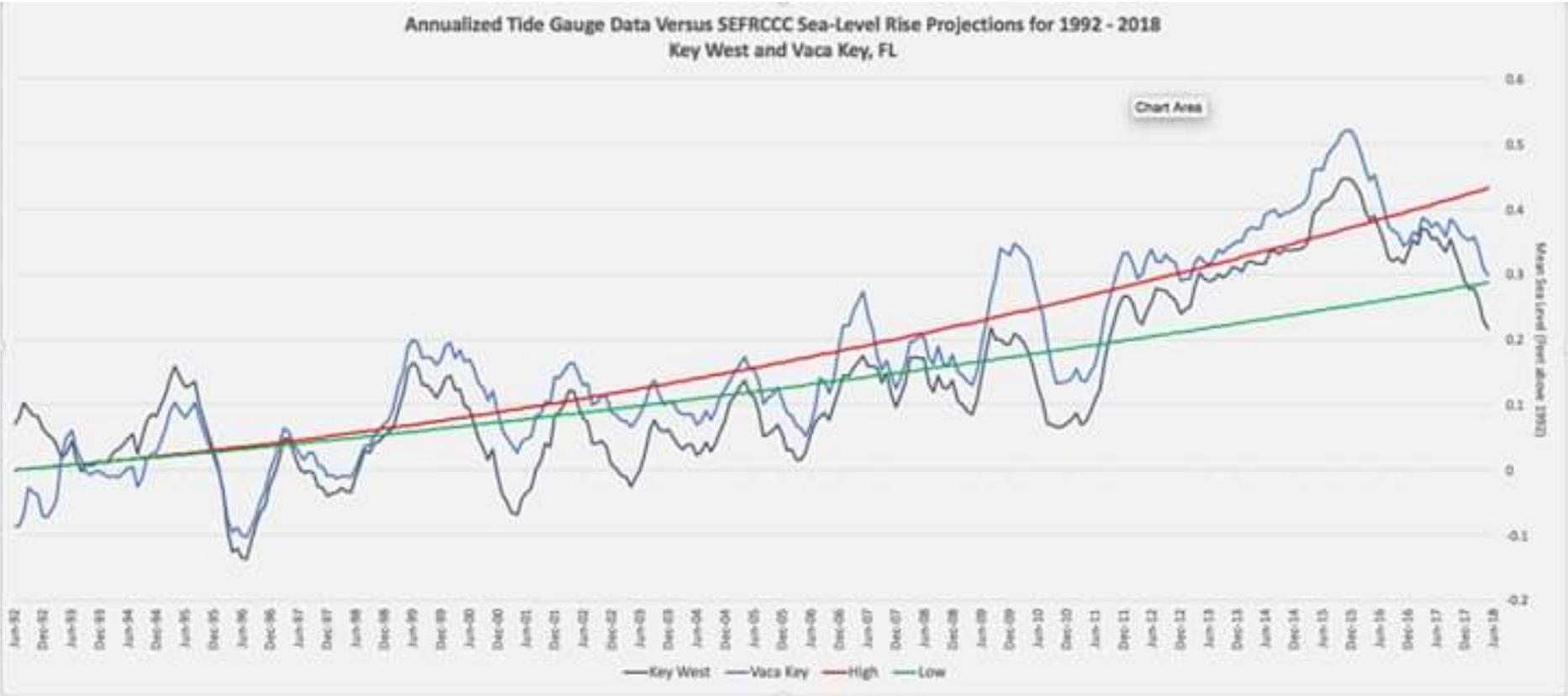
# Unified Sea Level Rise Projection for Southeast Florida

## 2019 PROJECTION AND SUMMARY

This Unified Sea Level Rise Projection for Southeast Florida updated in 2019 projects the anticipated range of sea level rise for the region from 2000 to 2120 (Figure 1). The projection highlights three planning horizons:

1. **short term:** by 2040, sea level is projected to rise 10 to 17 inches above 2000 mean sea level.
2. **medium term:** by 2070, sea level is projected to rise 21 to 54 inches above 2000 mean sea level.
3. **long term:** by 2120, sea level is projected to rise 40 to 136 inches above 2000 mean sea level.

# Sea Level Rise Projections vs. Reality analysis by Monroe County



# Projected Increase in Nuisance Flooding



1980-1982  
**.67 per  
year**



2010-2012  
**2.3 per  
year**



2030 at 3"  
**20 per  
year**



2030 at 7"  
**78 per  
year**



2060 at 9"  
**139 per  
year**



2060 at 24"  
**672 per  
year**



# External Water Quality Influences

- South Florida Regional Influences
- Tidal Flooding and Climate

## Local Water Quality Issues

- Stormwater
- Wastewater
- Canal Restoration
- Sargassum and Organic Debris
- Marinas and Liveaboards
- Emerging Pollutants of Concern