

Joint Climate Change Vulnerability Assessment in Southeast PBC

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Office of Resilience



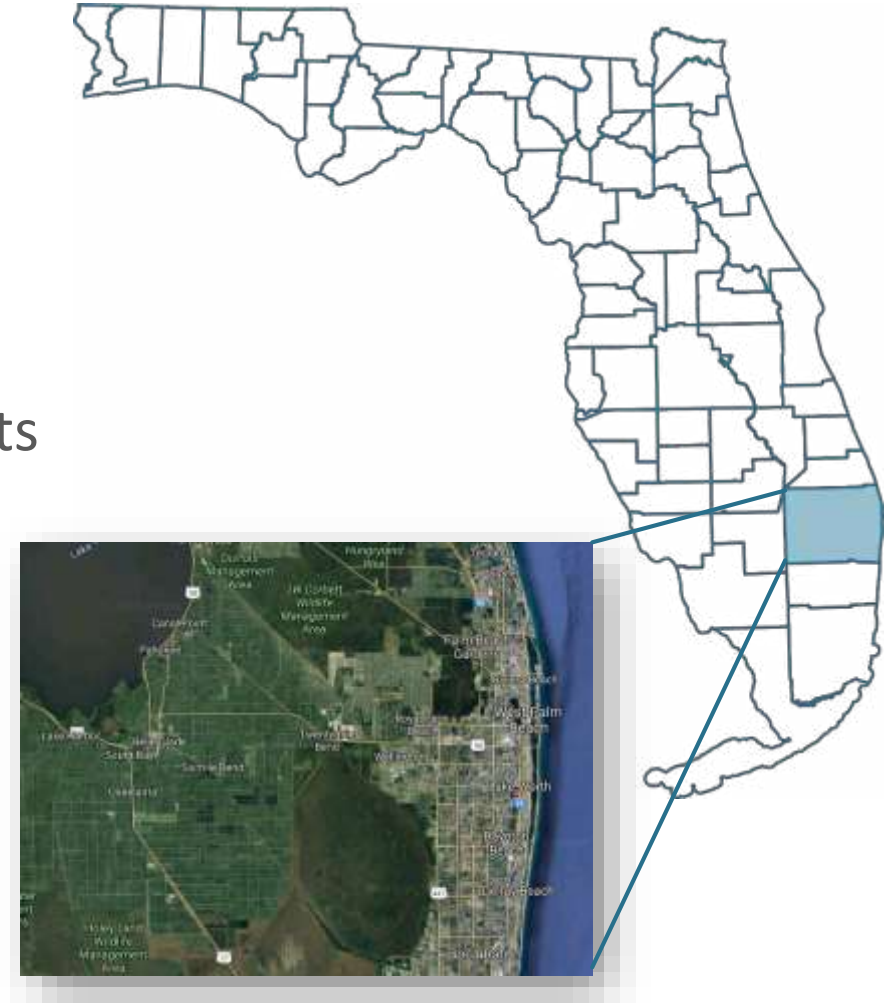
**COASTAL
RESILIENCE
PARTNERSHIP**

SOUTHEAST PALM BEACH COUNTY

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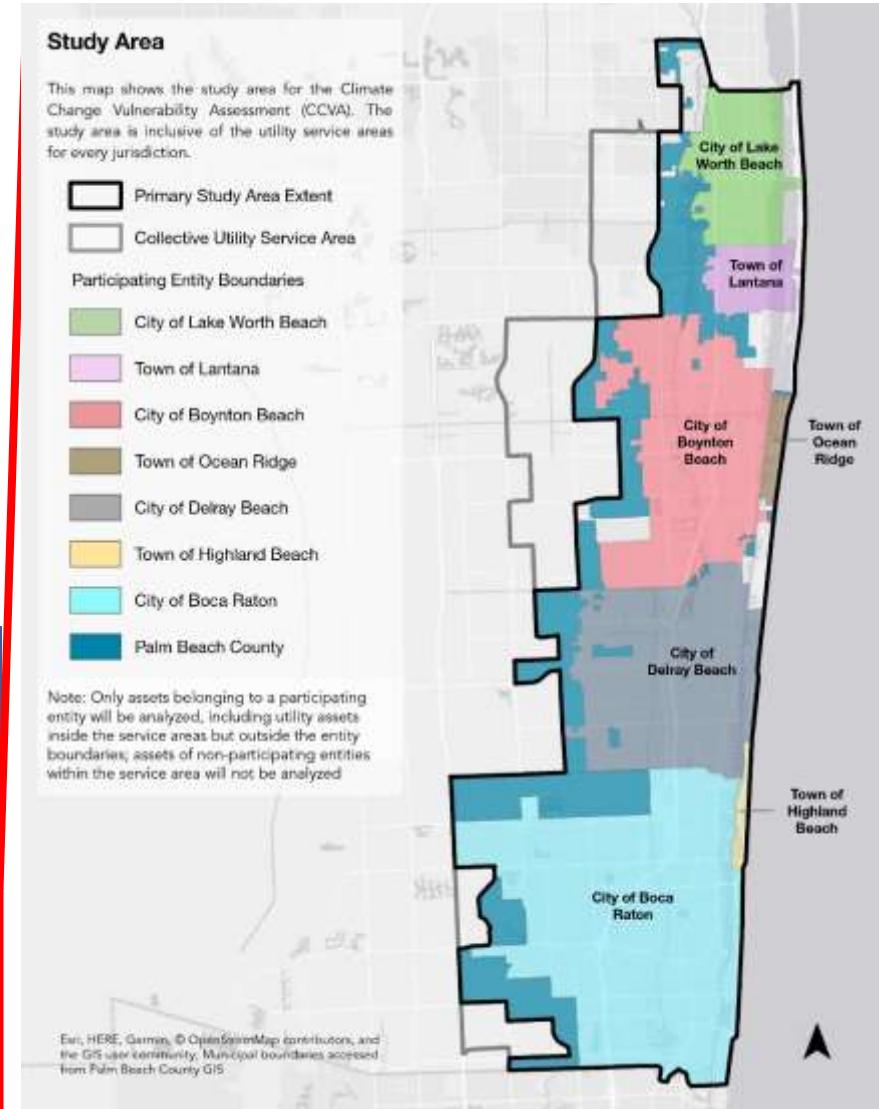
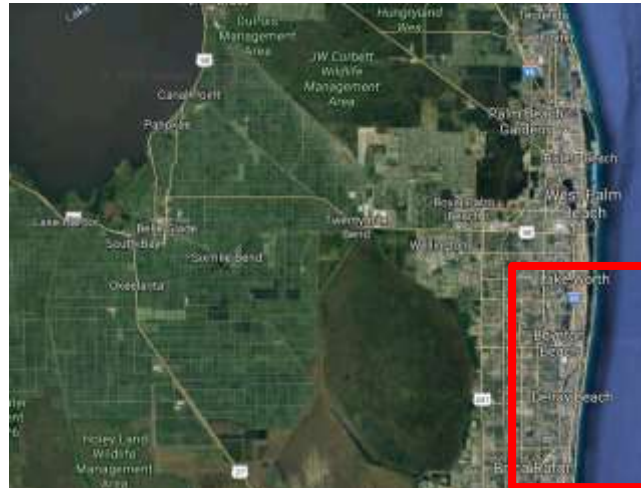
Palm Beach County Background

- 1,977 square miles
- \approx 47 miles of coastline
- 39 municipalities
- Approximately 1.5 million year-round residents
 - 43.6 % living in unincorporated
 - **56.4 % living in incorporated areas**

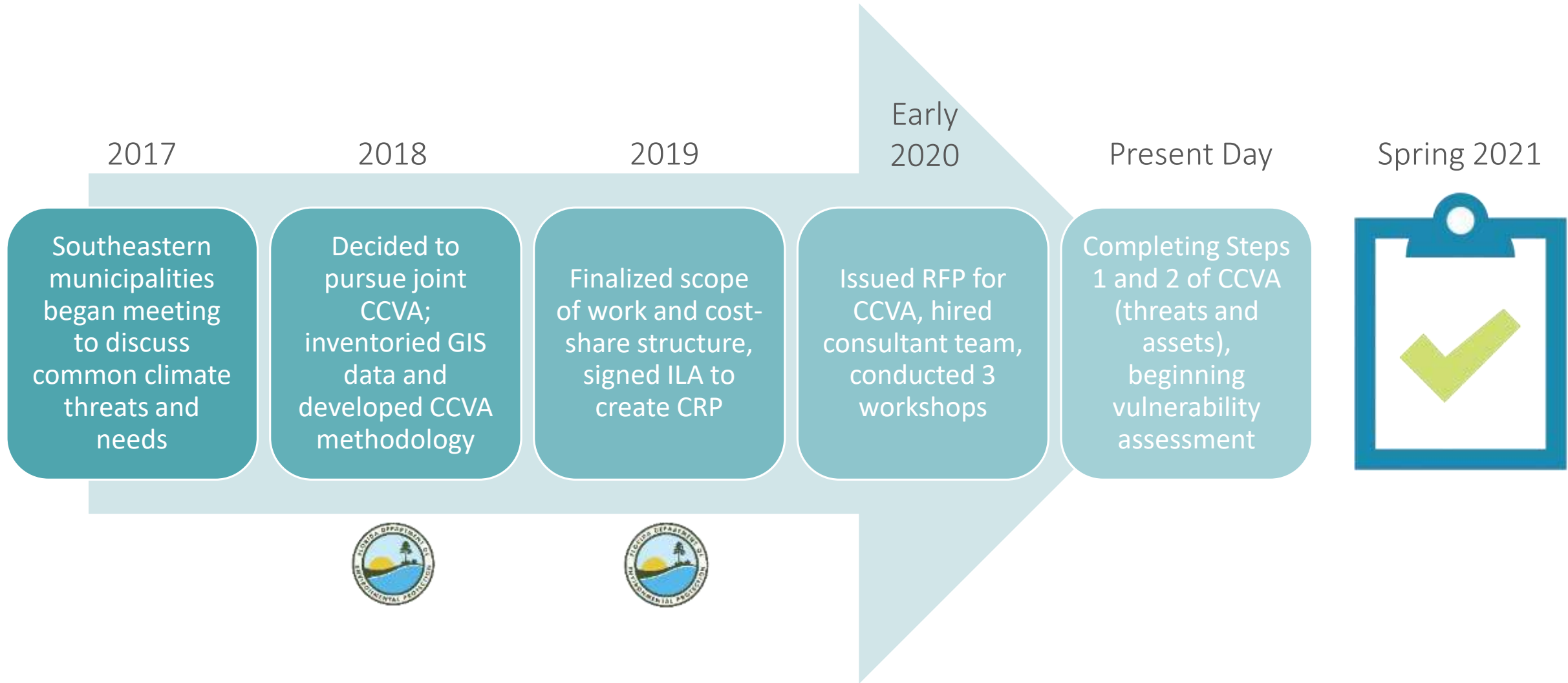


What is the CRP?

- 7 municipalities + PBC
- CRP communities share:
 - ≈ 20-mile stretch of Intracoastal Waterway
 - similar physical, geographic and social characteristics
 - similar climate change impacts
 - lack of a comprehensive local assessment



CRP Timeline



The CCVA Project Team



CCVA Scope of Work

Task 1. Explore Climate Threats

→ **June 2020**

Task 2. Assemble Data on
Community Assets

→ **June 2020**

Task 3. Assess Vulnerabilities
and Risks

→ **October 2020**

Task 4. Investigate Potential
Adaptation Strategies

→ **January 2021**

Task 5. Prepare Final Report and
Interactive Map/Tool

→ **March 2021**

Top 12 Threats



High Winds



**Rainfall-Induced
Flooding**



**Harmful Algal
Blooms**



**Pest & Disease
Outbreaks**



Extreme Heat



Drought



Wildfire



**Shoreline
Recession**



Tidal Flooding



Storm Surge



**Groundwater
Inundation**



**Saltwater
Intrusion**

Assets

- Critical Facilities
- Water Infrastructure
- Economy
- Natural Resources
- People
- Residential Property
- Commercial Property
- Public/Cultural Property
- Transportation & Mobility



How We Are Using the Unified SLR Projection

NOAA High

Recommended for Sensitive
and Critical Infrastructure

NOAA Intermediate High

Recommended for
Assets with Adaptive Capacity

IPCC Median

Recommended for Assets
with Short Life Cycle

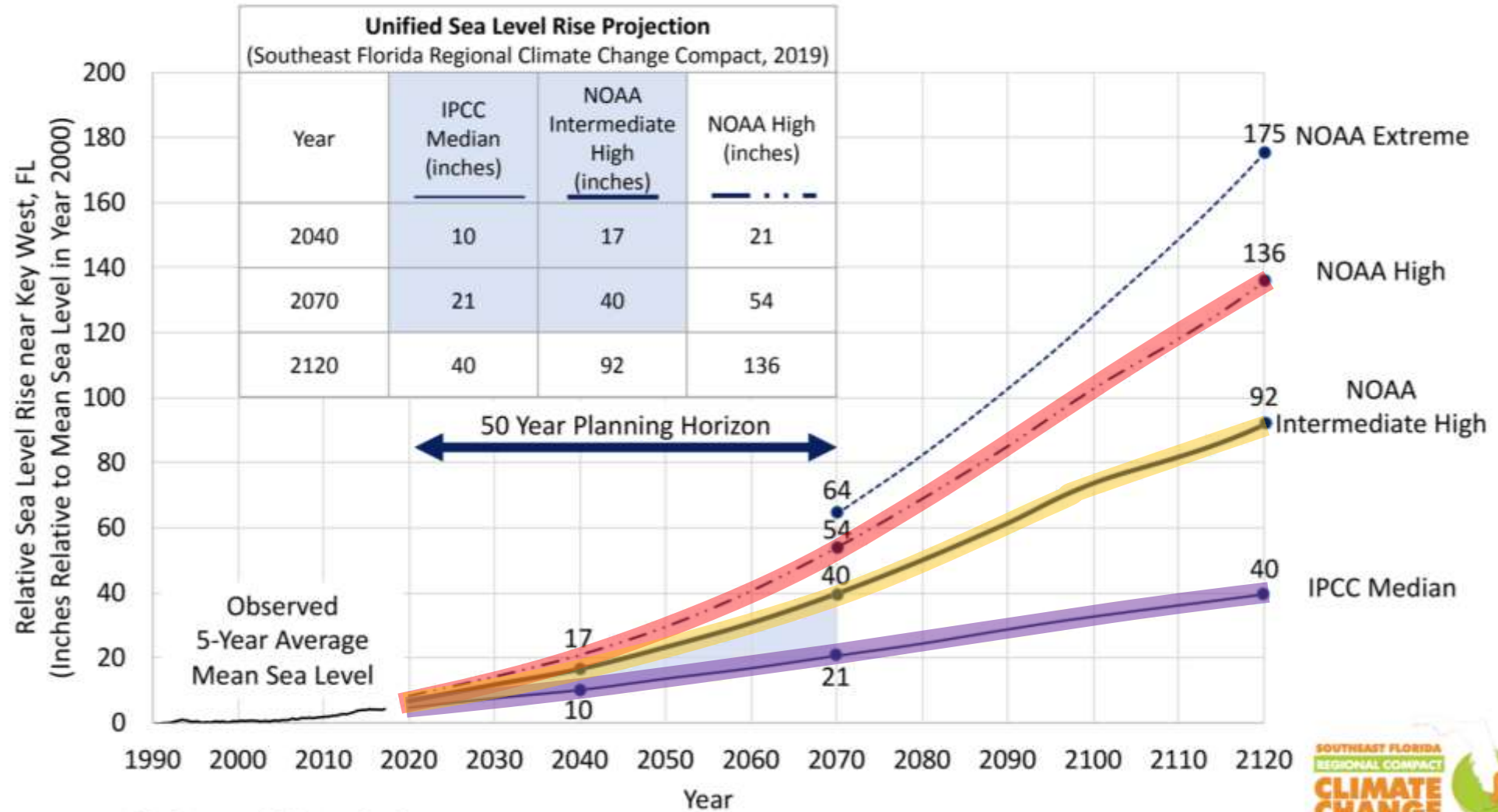


FIGURE 1: SFRCCC Unified Sea Level Rise Projection modified to show colored curves



Applying Sea Level Rise Scenario Projections (Preliminary)

- Consider two planning horizons
 - 2040: where incremental adaptation is possible mid-life cycle
 - 2070: where incremental adaptation is not possible
- Consider risk across the scenario projections
 - lower thresholds can represent higher risk
- Levels of risk aversion can be selected based on asset sensitivity and Compact guidance

Potential Assessment Thresholds

2040	
Risk	Mean Sea Level Threshold (inches)
High	10 (IPCC Median)
Med	17 (NOAA Intermediate High)
Low	21 (NOAA High)

2070	
Risk	Mean Sea Level Threshold (inches)
High	21 (IPCC Median)
Med	40 (NOAA Intermediate High)
Low	54 (NOAA High)

Thank you!

Questions?

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