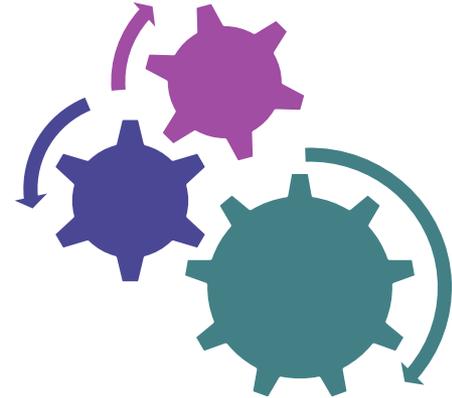


RECOMMENDATION FOR A UNIFIED PROJECTION OF SEA-LEVEL RISE IN THE TAMPA BAY REGION

*Tampa Bay Climate
Science Advisory Panel*

Presentation Overview



- Tampa Bay Climate Science Advisory Panel (CSAP)
- Scientific Foundation
- Recommendation for SLR Projection
- Questions & Comments

Tampa Bay Climate Science
Advisory Panel
Overarching Goal

**Collaboratively develop
recommendations for local
governments and regional
agencies as they respond to
climate change and associated
sea-level rise (SLR)**

Scientific Membership

Convener- UF/IFAS Extension, Florida Sea Grant

Agency Members

Tampa Bay Regional Planning Council (regional)

Tampa Bay Estuary Program (regional)

Tampa Bay Water (regional)

Southwest Florida Water Management District (regional)

Florida Climate Institute (state)

Florida Sea Grant (state)

National Weather Service, Tampa Bay (regional, national)

NOAA Fisheries Service, SWRegional Office (multi-state)

US Army Corps of Engineers (national)

US Geological Survey (national)

Scientific Membership

Academic Members

University of South Florida, School of Public Affairs

University of South Florida, College of Marine Science

Government Members

Natural Resources, Pinellas County

Environmental Protection Commission of Hillsborough
County

Environmental Protection Division, Manatee County

Environmental Lands, Pasco County

Timeline of Planning & Outreach

When	Action Item
January 2014	Sea Level Rise Project Inventory
January 2014	Presentation to Pinellas BoCC
March 2014	Invited members to serve on CSAP
April '14-Jan '15	Monthly Meetings of CSAP
August 2014	Presentation to Hillsborough BoCC
May, Oct, Dec 14	Planning & Science Updates to TBRPC One Bay Resilient Communities WG
Feb-April '15	Presentations to Manatee Directors, EPC Hillsborough Climate Group, City of Tampa, Manatee Council of Gov'ts

Sea-Level Rise Affects Natural & Built Environments

- Flooding
 - streets, homes, businesses, hospitals, schools, emergency shelters, etc.
- Impairment of coastal water supplies
 - saltwater intrusion of groundwater
 - threats to coastal water treatment facilities and infrastructure
- Impacts to the operations of coastal drainage systems



Sea-Level R Affects Natural & Built Environments

- Shoreline and beach erosion
- Shifts in wetlands and habitats,
 - loss of natural barriers against erosion
 - Loss of value and uniqueness of our region



Needs & Uses Unified SLR Projection

Adaptation Planning

- Increase awareness
 - Community
 - Government
- Assess vulnerabilities
- Incorporate adaptation into future planning

The CSAP has drafted a recommendation regarding the most appropriate sea-level rise projections to use for planning and policy making throughout the Tampa Bay region

Process

Facilitated
Discussion



Literature
Review



Context
Speakers

Context Speakers

TBRPC

- GIS Tools used in Evacuation Planning and Climate Change Modeling

USACE

- Sea Level Rise and Climate Change Risk Management for Florida

DEO

- Sea Level Rise Projection, Needs, Capacities, and Alternatives for Florida

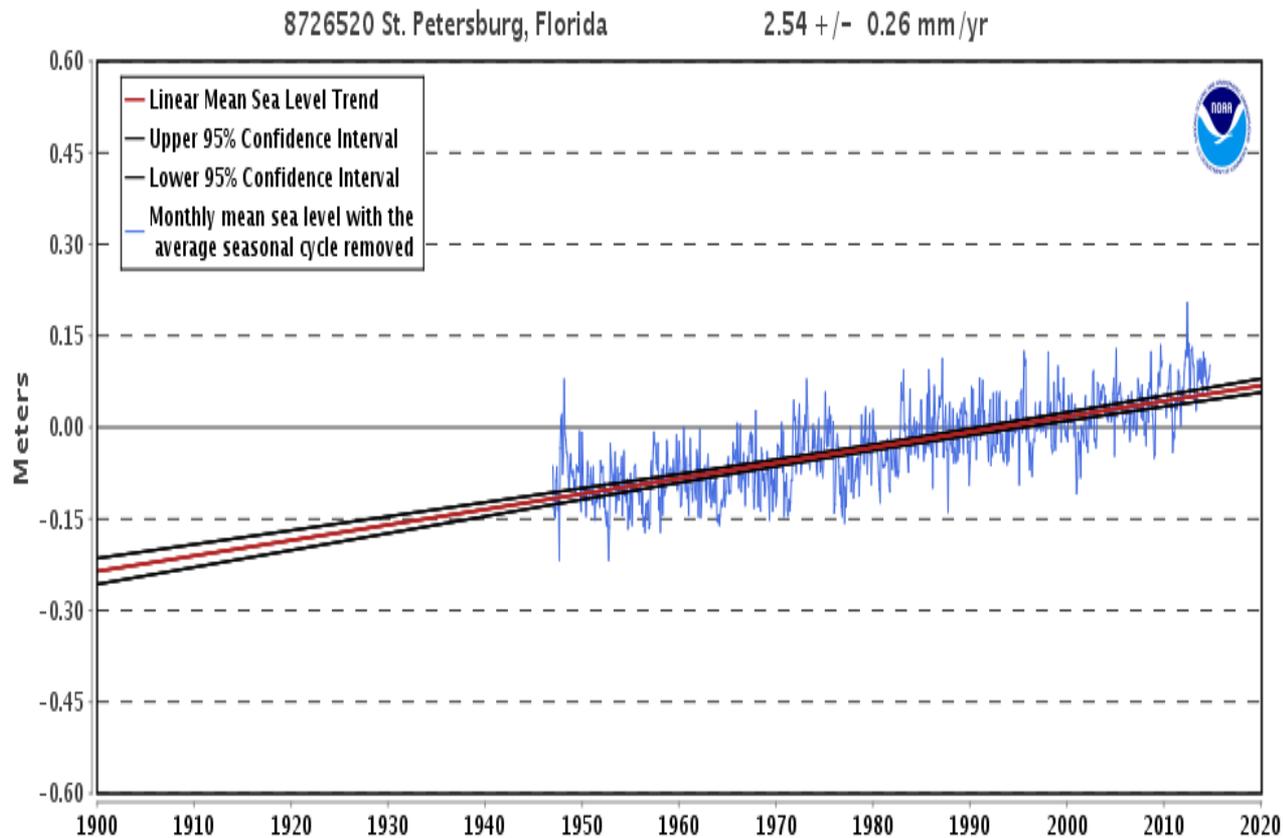
Recommendation of NOAA Projections

- CSAP recommends the set of 4 scenarios
 - Adjusted to local conditions
 - Recommended by the NOAA Technical Report, *Global Sea Level Rise Scenarios for the US National Climate Assessment* (2012)
- NOAA is lead
 - Report is a Multi-Agency effort
 - Informs the National Climate Assessment
 - Synthesizes best-available science
 - National experts in climate science, physical coastal processes, and coastal management

Recommendation of NOAA Projections

- Projections are tied to regionally relevant and reliable tide gauge time series
- The NOAA/NCA projections are consistent with the IPCC projections, and also the much older NRC projections from the 1980's
- Updated on a regular, roughly 5-year, basis
- Free decision support tools, such as the Army Corps of Engineers tool, are available

Sea Level Trend in St. Petersburg, FL NOAA Tide Gauge #8726520

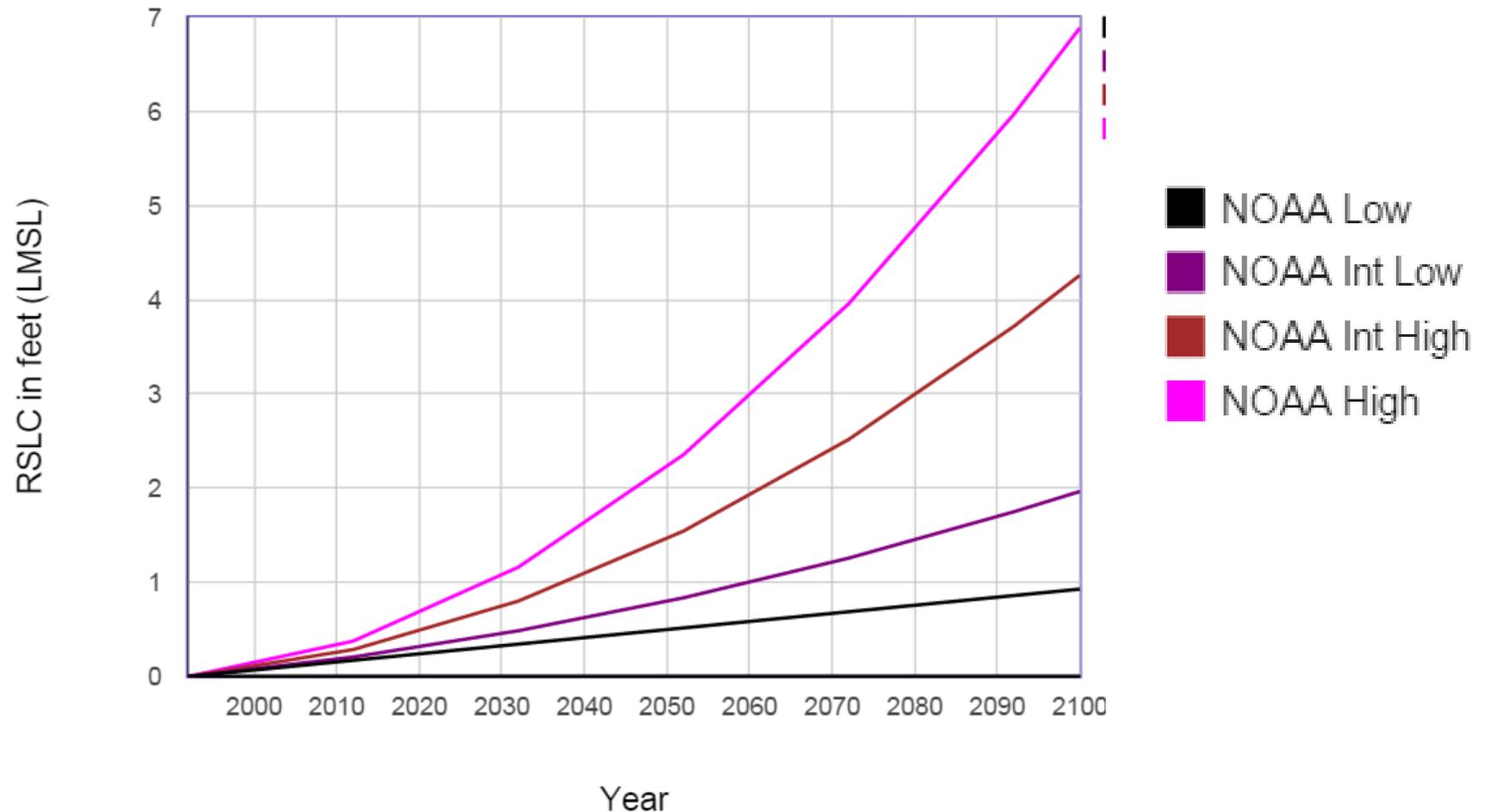


Estimated Relative Sea Level Rise 1992 To 2100

St. Petersburg, FL (Feet), NOAA Station #8726520
All values are expressed in **Feet** relative to LMSL

Year	NOAA Low (Feet)	NOAA Int Low (Feet)	NOAA Int High (Feet)	NOAA High (Feet)
1992	0.00	0.00	0.00	0.00
2012	0.17	0.21	0.29	0.38
2032	0.34	0.49	0.80	1.16
2052	0.52	0.84	1.54	2.36
2072	0.69	1.26	2.52	3.96
2092	0.86	1.75	3.72	5.97
2100	0.93	1.97	4.26	6.89

Relative Sea Level Change Scenarios for St. Petersburg, FL



Key findings in Recommendation

- Projections of SLR should be “regionally corrected” using the St. Petersburg tide gauge
- Projections of SLR should be consistent with NOAA estimates and methods
- Adaptation planning should employ a scenario-based approach that considers, at a minimum, location, time horizon and risk tolerance
- Planning is a continuum, not an endpoint
 - The CSAP advises that this recommendation be revisited in 5 years, or when additional scientific information on future SLR is available

Questions?

A scenic view of a waterfront promenade. In the foreground, a concrete walkway runs along the water's edge. To the right, a row of tall palm trees stands in the water, their reflections visible on the surface. A wooden pier with a railing extends into the water in the middle ground. The background shows a calm body of water and a distant shoreline with trees and buildings under a bright, overcast sky.

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