Proposed Sea Level Rise Planning Policy and Approach

HAMPTON ROADS PLANNING DISTRICT COMMISSION

OCTOBER 18, 2018

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SENIOR REGIONAL PLANNER

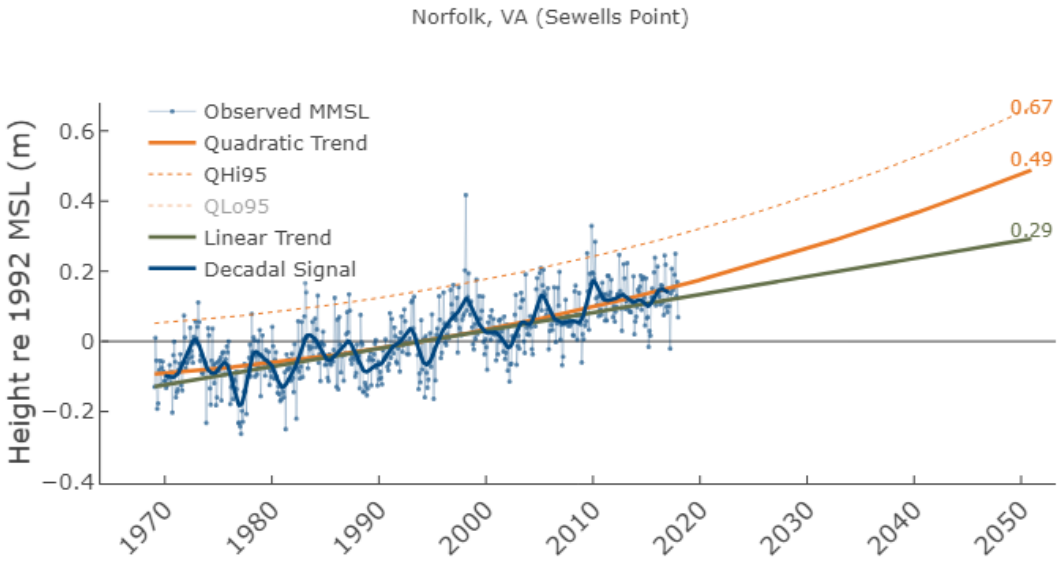
The Case for a Sea Level Rise Policy

Sea level rise has already occurred and is accelerating

Flooding is occurring more frequently in the region

Higher standards reduce vulnerability and impacts

Adopting higher standards will help keep the challenge from growing



Source: Virginia Institute of Marine Science

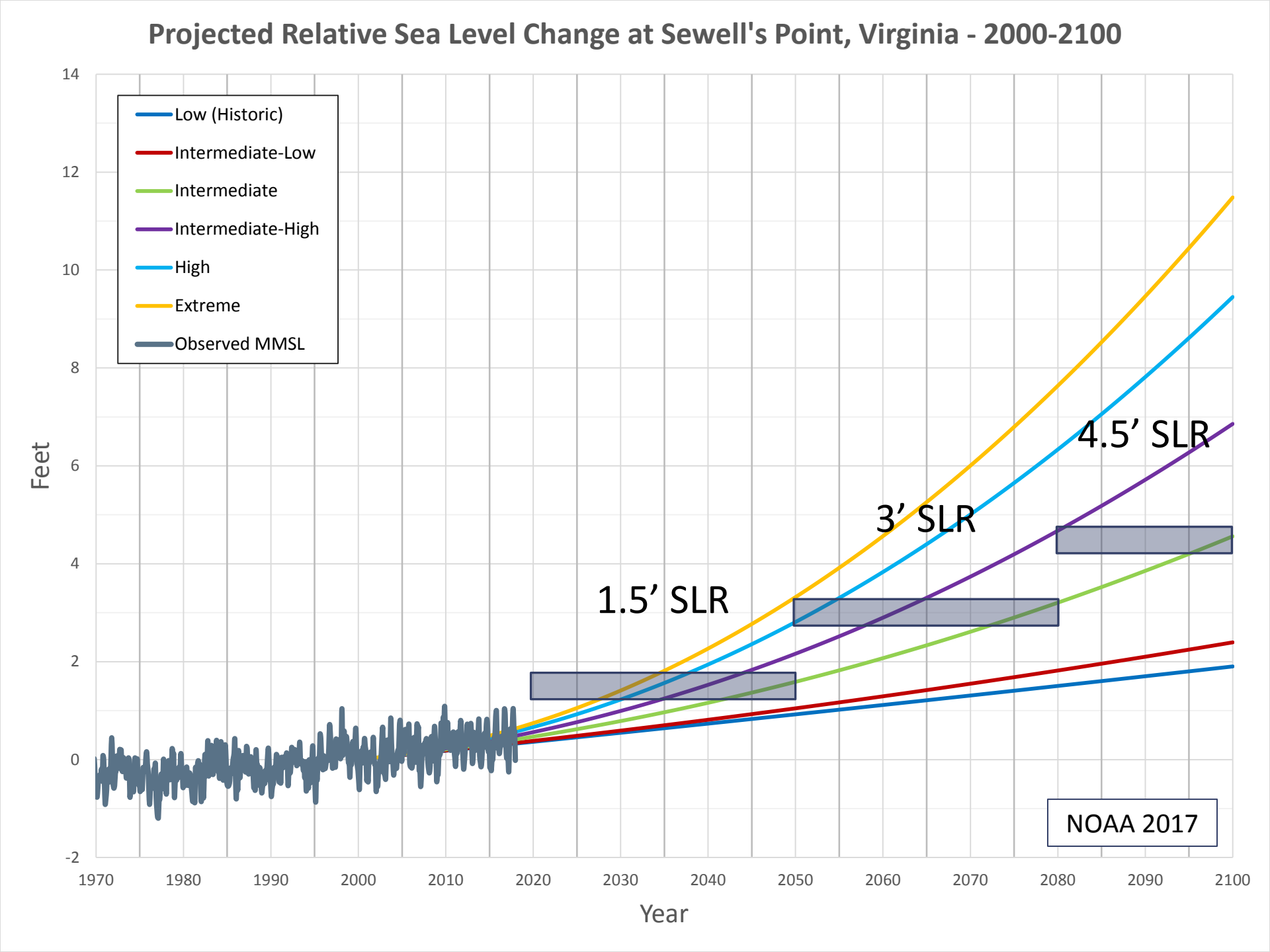
The Case for a Regional Policy

Provides support for localities

Makes regional coordination simpler

Creates a default position for state and federal entities on policies and projects

Demonstrates to the public that the region is working together on this issue


Projected Relative Sea Level Change at Sewell's Point, Virginia - 2000-2100
Low (Historic)
Intermediate-Low
Intermediate
Intermediate-High
High
Extreme
Observed MMSL
1.5’ SLR
3’ SLR
4.5’ SLR
NOAA 2017
Feet
Year
14
12
10
8
6
4
2
0
-2
1970
1980
1990
2000
2010
2020
2030
2040
2050
2060
2070
2080
2090
2100

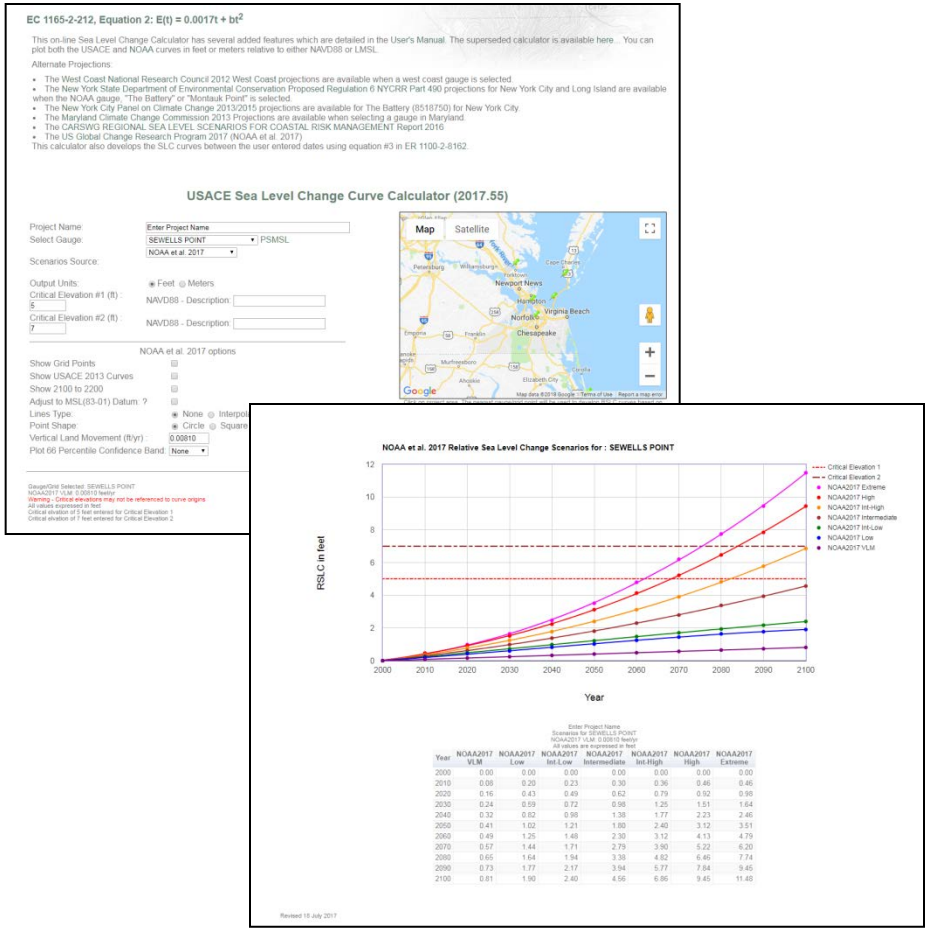
Engineering and Design

Utilize best available sea level rise projections

Explicitly account for construction timeline, project lifespan, criticality, and vulnerability to flooding

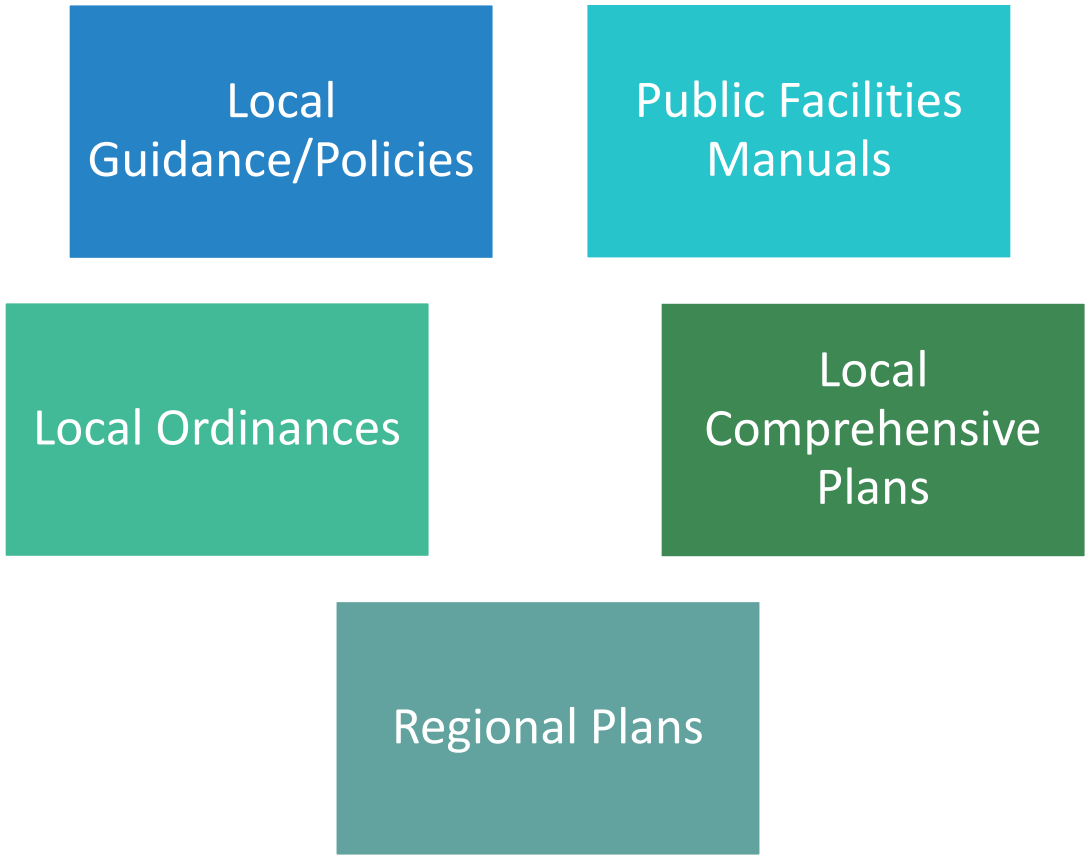
Utilize U.S. Army Corps of Engineers calculator and 2017 NOAA sea level rise curves to determine possible sea level rise impacts

Perform benefit-cost analysis of options to determine cost-effective approach to sea level rise adaptation



Source: U.S. Army Corps of Engineers

Next Steps – Implementation



Proposed Action

Adopt a resolution recommending that local governments in Hampton Roads incorporate the recommended policy and approach into their local plans and policies.

Draft Resolution Language

WHEREAS, the tide gauge at Sewell's Point in Norfolk has recorded nearly 1.4 feet of relative sea level rise since 1927, equivalent to a change of 1.52 feet per 100 years.

WHEREAS, reports by the Hampton Roads Planning District Commission staff have found the Hampton Roads region to be vulnerable to flooding and sea level rise.

WHEREAS, the "Recurrent Flooding Study for Tidewater Virginia," completed in 2013 at the request of the General Assembly by the Center for Coastal Resources Management of the Virginia Institute of Marine Science, found that "recurrent flooding is a significant issue in Virginia coastal localities and one that is predicted to become worse over reasonable planning horizons."

WHEREAS, the several federal agencies have found, as described in the technical report, "Global and Regional Sea Level Rise Scenarios for the United States," published in 2017, that "long-term sea level rise driven by global climate change presents clear and highly consequential risks to the United States over the coming decades and centuries."

Draft Resolution Language

WHEREAS, the Virginia Institute of Marine Science published, in 2018, a "Sea-Level Report Card" for Norfolk, Virginia, that projected relative sea level rise of 1.61 feet of sea level rise between 1992 and 2050, with a 95% confidence that sea level will rise between 0.95 feet and 2.20 feet over the same interval.

WHEREAS, several Hampton Roads localities, including Gloucester County, Hampton, Norfolk, Portsmouth, and Virginia Beach, have adopted or are developing plans and programs to address floodplains, coastal resiliency, or sea level rise.

WHEREAS, incorporating sea level rise into local policies for planning and engineering is sound public policy to help protect and promote the health, safety, and welfare of Hampton Roads communities.

Draft Resolution Language

NOW THEREFORE, BE IT RESOLVED that the Hampton Roads Planning District Commission hereby:

1. Encourages localities in Hampton Roads to consider adopting policies to incorporate sea level rise into their planning and engineering decisions as described in the attached document, "HRPDC Sea Level Rise Planning Policy and Approach," which was recommended for approval by the HRPDC Coastal Resiliency Committee at its meeting of June 22, 2018;

2. Recommends that the adopted policies include planning for 1.5 feet of relative sea level rise above current mean higher high water (MHHW) for near-term (2018-2050) planning, 3 feet of relative sea level rise above current MHHW for mid-term (2050-2080) planning, and 4.5' of relative sea level rise above current MHHW for long-term (2080-2100) planning;

Draft Resolution Language

NOW THEREFORE, BE IT RESOLVED that the Hampton Roads Planning District Commission hereby:

3. Recommends that the adopted policies include selecting an appropriate sea level rise curve and design based on the requirements and needs, including risk tolerance and cost, of a specific project or policy decision. This curve should be selected from the 2017 NOAA report, "Global and Regional Sea Level Rise Scenarios for the United States."

4. Directs the HRPDC Coastal Resiliency Committee to keep apprised of developments in the monitoring, research, and analysis of sea level trends and provide updated information and recommendations to the Commission and to its member localities as appropriate.

APPROVED AND ADOPTED by the Hampton Roads Planning District Commission this 18th day of October 2018.