

Sea Level Rise in the US: Challenges and Policy Landscape

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What is Sea
Level Rise?

What is expected in the US?

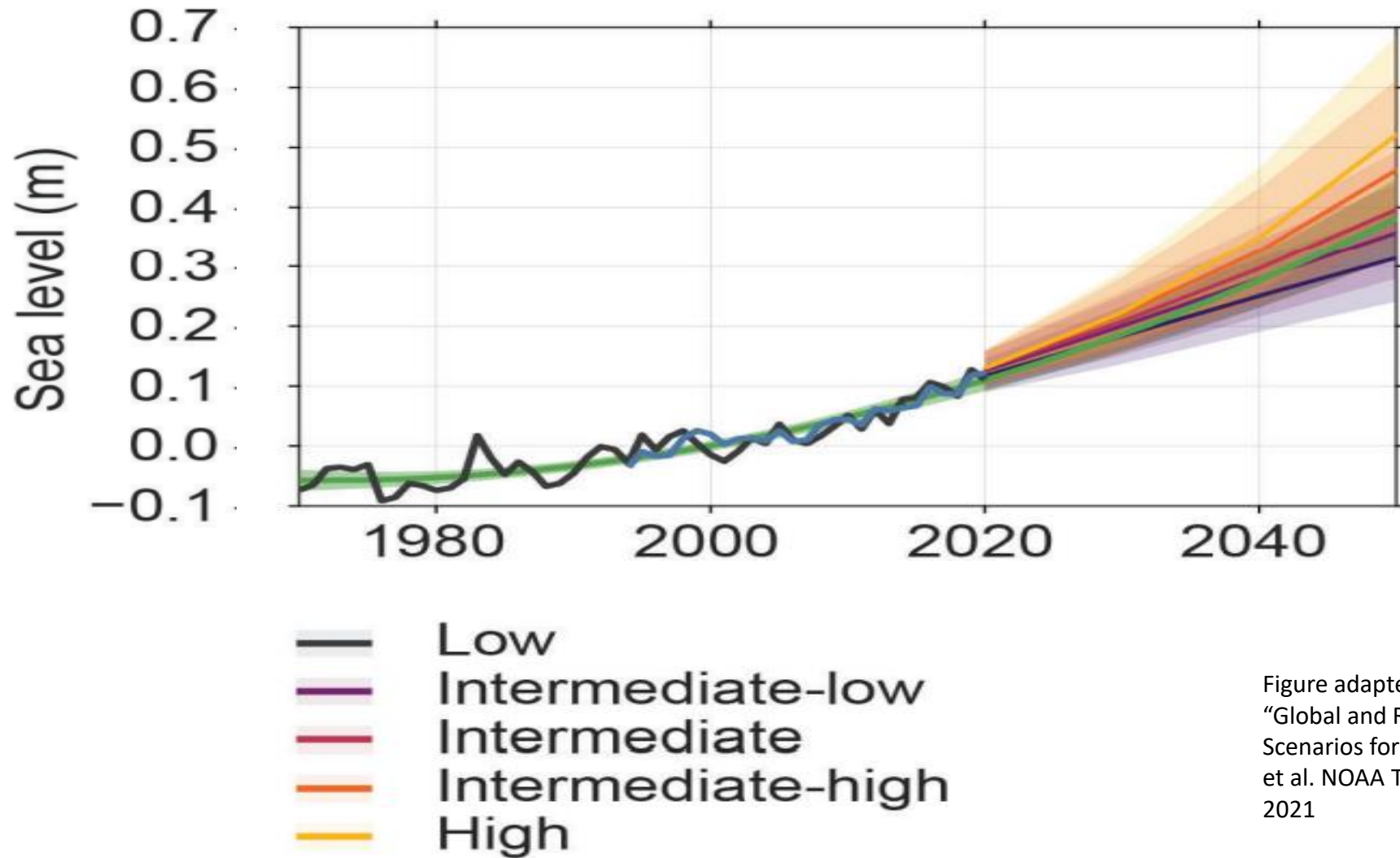


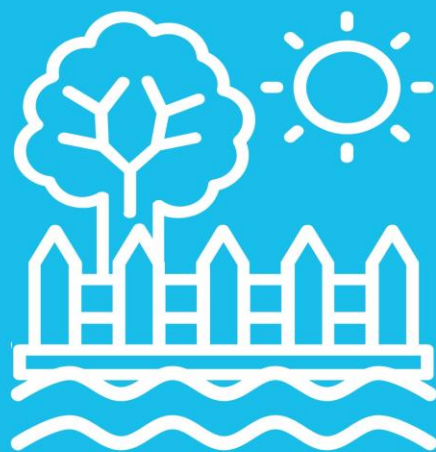
Figure adapted from
"Global and Regional Sea Level Rise
Scenarios for the United States", Sweet
et al. NOAA Technical Report NOS 01.
2021

What does
this mean for
us?

On average, the U.S. will see
as much **sea level rise by 2050**
as seen in the last century



Sea level rise leads to
increased coastal flooding
even in the absence of rain or storms



What does sea level rise look like? A glimpse of the future?



[Anthony Quintano/
https://www.flickr.com/photos/quintanomedia/8505192671/](https://www.flickr.com/photos/quintanomedia/8505192671/)





HIGH TIDE FLOODING



**Twice as frequently as in 2000
Up to 75 days per year by 2050**

Impacts to homes, businesses, tourism, and livelihoods

Source: NOAA



High Tide Flooding →

Storm Surge

1950 sea level

In **1950** it would take a considerable amount of water caused by a large storm such as a hurricane to cause high tide flooding. **High tide flooding was infrequent.**

High Tide
2010 sea level

In **2010**, with higher relative sea level, it no longer takes a strong storm or hurricane to cause flooding. Now, **high tide flooding is frequent** and can be caused merely by high tide.

How is local elevation important to high tide flooding?

The relationship between local elevation and the high tide line determines the rate of nuisance flooding. If they are close to the same in elevation, flooding is frequent. If they are not close, flooding is infrequent.





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VENTES

CLARA SUAREZ



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4. Incorporate this knowledge and engagement into future policies, plans, development...

Policy Context

- This is not an environmental problem – it affects every aspect of society and economy
- All levels of government have to be part of the solution
- The Federal Government has several roles:
 - Getting its own house in order
 - Supporting other levels of government with incentives
 - Providing good information and data



A National Policy Agenda for Rising Seas

- Disclose Current and Future Risks of Coastal Flooding and Sea Level Rise
- Improve Disaster Preparedness
- Limit New Development in Places at Risk of Storms and Rising Seas
- Build Capacity to Sustain Coastal Communities, Homes, and Businesses
- Adapt Coastal Infrastructure (Transportation, Energy, Water, Defense)
- Promote Migration of Coastal Ecosystems to Higher Ground
- Build Commitment to Social Justice into Coastal Flood Management Plans and Programs



Executive Actions

- Adaptation plans for all agencies
- Improving climate science, information, and services
- Building resilience into all future investments and plans, including adapting new and existing programs for infrastructure and buy-outs
- Leveling the playing field for vulnerable communities to access resources, including through revising cost/benefit methodologies
- Promoting nature-based solutions to coastal flood risks



Legislative Action

- Provide funding for coastal resilience efforts, including planning and action at local levels as well as science and information development (e.g., grants for community plans or funding to invest in natural infrastructure).
- Ensure existing programs and legislation address sea level rise, e.g. WRDA, NFIP, etc.
- Champion and coordinate actions across committees and bills that promote coastal resilience

Thank you and Resources

Thank you! to

- Jeff Peterson, Co-Facilitator, Coastal Flood Resilience Project
- Coastal Flood Resilience Project collaborating organizations
- EESI
- All of you!

Resources:

Interagency 2022 Sea Level Rise Technical Report
(NOAA, NASA, EPA, USGS, DHS, FEMA, USACOE, DOD)

<https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html>

2021 State of High Tide Flooding and Annual Outlook
NOAA

https://tidesandcurrents.noaa.gov/HighTideFlooding_AnnualOutlook.html

Coastal Flood Resilience Project website: <https://www.cfrp.info/>
Including:

- [National Policy Agenda: Preparing for More Severe Coastal Storms and Rising Seas](#)
- White papers on NFIP reform, relocation and migration, disclosure of coastal flood risk, legislative issues, etc.
- Links to Coastal Flood Resilience Resources from a variety of partners, including Surfrider Foundation, Union of Concerned Scientists, Anthropocene Alliance, Meridian Institute, NRDC and others

“A New Coast: Strategies for Responding to Devasting Storms and Rising Seas” by Jeffrey Peterson

<https://islandpress.org/books/new-coast>

Illustrative Legislative initiatives with provisions on sea level rise and coastal resilience

1. **H.R. 3764; the Ocean-Based Climate Solutions Act;** authorizing diverse programs to make coastal communities more resilient; and to provide for the conservation and restoration of ocean and coastal habitats, biodiversity, and marine mammal and fish populations
2. **H.R. 2570; the Climate Risk Disclosure Act of 2021;** requiring the Securities and Exchange Commission to require corporations to annually disclose information regarding climate change-related risks, including strategies and actions to mitigate these risks
3. **H.R. 3228; the National Coastal Resilience Data and Services Act;** directing the National Oceanic and Atmospheric Administration, to improve science, data, and services that enable sound decision making in response to coastal flood risk, including impacts of sea level rise, storm events, changing Great Lakes water levels, and land subsidence
4. **H.R. 2632; the Build for Future Disasters Act of 2021;** eliminating National Flood Insurance Program (NFIP) rate subsidies for newly constructed property
5. **H.R. 481; the Flood Resiliency and Taxpayers Savings Act of 2021;** enacting key provisions of the Federal Flood Risk Management Standard
6. **H.R. 2872; the SAFE Act;** requires the President to establish an interagency National Fish, Wildlife, and Plants Climate Adaptation Strategy Working Group and address the effects of extreme weather and climate change on fish, wildlife, and plants
7. **H.R. 744; the FEMA Climate Change Preparedness Act;** requires the FEMA to revise its 2018-2022 Strategic Plan to ensure that the plan explicitly mentions climate change and addresses the implications of climate change on national disaster risk
8. **H.R. 1963; the Climate Resilient Communities Act;** requiring the government Accountability Office to report to Congress on the use of model, consensus-based building codes, standards, and provisions that support resilience to climate risks and impact
9. **H.R. 4235; the Living Shorelines Act;** authorizing grants to certain entities for purposes of carrying out climate-resilient living shoreline projects that protect coastal communities
10. **H.R. 2534; the Climate Stewardship Act of 2021;** establishing a Coastal and Estuary Resilience Grant Program
11. **H.R. 5477; Federal Agency Climate PREP Act,** providing for expanded coordination among federal agencies in preparing for climate change