

Community Impacts of Sea Level Rise

Tampa Sea Level Rise Conference

January 12, 2021

Forbes Tompkins
Manager, Federal Policy
Flood-Prepared Communities



DISASTER

Michael B. Thomas/Getty Images



INFRASTRUCTURE

James Steinkamp Photography



NATURE-BASED SOLUTIONS

Kevin du Bois/City of Norfolk



FLOOD INSURANCE

Marcus Yam/Los Angeles Times

Key Sea Level Rise Concerns

- Wide Range of Impacts
- Real Estate Devaluation
- Rising Insurance Rates
- Bond Ratings Implications

Wide Range of Impacts



Michael B. Thomas/Getty Images



Gary Coronado/ZUMA Press/Newscom

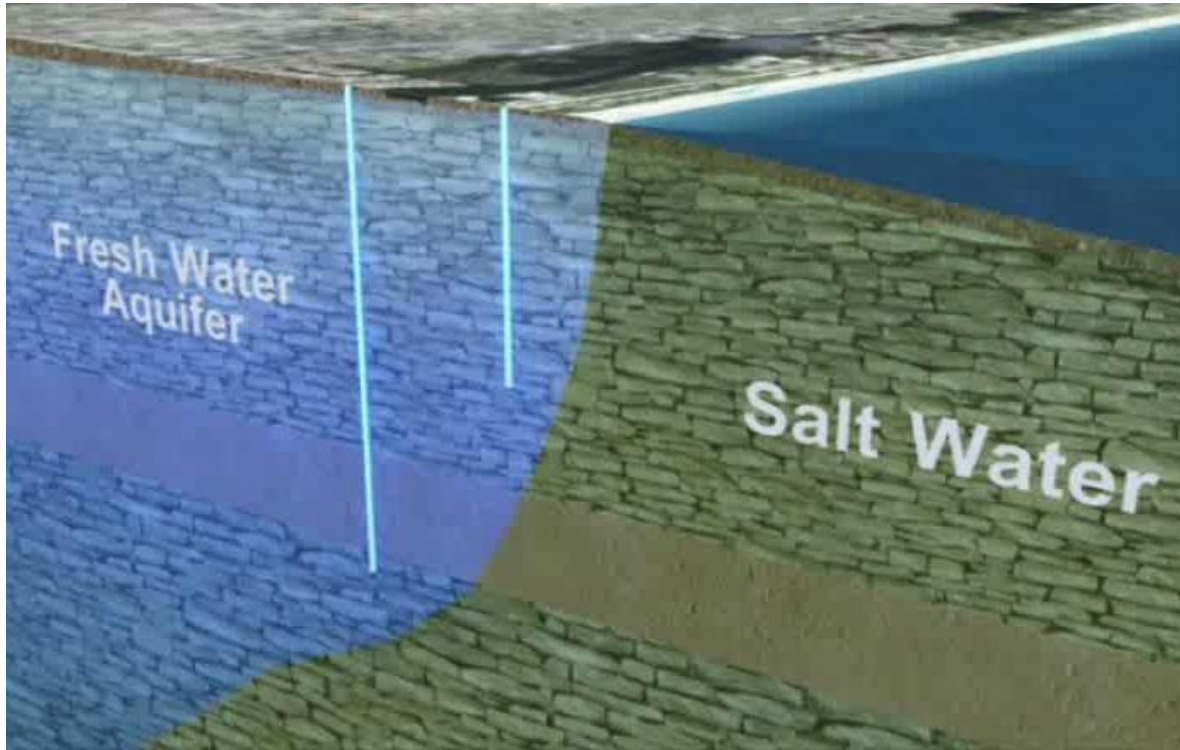


John Englander



John Englander

Saltwater Intrusion



Real Estate Devaluation

Greatest Losses in Relative Home Values

STATE RANK BY TOTAL LOSS

	STATE	LOSS	PERIOD
1	Florida	-\$5.4 B	2005 - 2017
2	New Jersey	-\$4.5 B	2005 - 2017
3	New York	-\$1.3 B	2005 - 2017
4	South Carolina	-\$1.1 B	2008 - 2017
5	Connecticut	-\$915.9 M	2005 - 2017
6	North Carolina	-\$582.3 M	2005 - 2017
7	Maryland	-\$555.7 M	2005 - 2017
8	Delaware	-\$299.5 M	2005 - 2017
9	Virginia	-\$280.3 M	2006 - 2017
10	Massachusetts	-\$273.4 M	2005 - 2017
11	Mississippi	-\$263.8 M	2005 - 2017
12	Alabama	-\$157.9 M	2005 - 2017
13	Texas	-\$76.4 M	2005 - 2017
14	Maine	-\$69.9 M	2005 - 2017
15	Rhode Island	-\$44.7 M	2005 - 2017
16	Georgia	-\$15.3 M	2005 - 2017
17	New Hampshire	-\$15.2 M	2005 - 2017
18	Pennsylvania	-\$10.1 M	2005 - 2017

FIRST STREET
FOUNDATION



   Major Real Estate Website Now Shows Flood Risk. Should They All? • 3:59

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Presented by: **FEMA**
Reviewed by: **Street View**

Flood Risk Information

To help you make informed decisions about this property, we provide two independent flood risk assessments:

FEMA

B PLUMB PIPE SEVERE

Outside Special Flood Hazard Area and indicates **moderate to low risk**

The FEMA Flood Risk Model is based on historic flood patterns and shows a general area, not an individual property. It also used to determine insurance and building code requirements.

Learn more about FEMA flood maps and zones and what they are used for

Flood Factor

Flood risk is **increasing** as sea levels rise and weather patterns change.*

Flood Factor identifies the past, present, and future flood risk for a home by identifying risks from sea, river, lakes and storm surge using advanced modeling techniques.

Take a closer look at this property's Flood Factor and risk details

Learn about the differences between FEMA and Flood Factor assessments

More on how to prepare and protect your home

Flood Insurance

Since this property is located in **FEMA Zone B (est.)**, flood insurance is **likely not federally required**, but you may still consider purchasing for added protection. Some lenders may require Flood Insurance.

Select coverage amount

\$250K building and \$100K in contents -

Est. Annual Premium \$**---**

[Get Quote](#)

Est. Annual Premium \$345^{***}

[Purchase Policy](#)

*Flood risk data is generated by Flood Factor, a product of First Street Foundation. The Flood Factor is designed to approximate flood risk and not intended to include all possible risks of loss.

**When you purchase Flood Zone from us as an affiliate or a customer for insurance and may be withheld for any reason. Price and terms associated with this quote are subject to underwriting review and may change.

***Maximum Building is estimated based on the building and contents coverage levels noted and are provided for informational purposes only. Actual Flood Insurance costs may vary.

Veterans. Check Eligibility for a \$0

\$309,000 [Listings](#)

2 beds 1.5 baths 1,040 sqft

711 Montgomery Ave, Avon

80 Down VA Loans for Veterans -

Property Type **Single Family**

Year Built

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about this property

Name

Address

City

State

Created in 1234 Main

Approved by a lender

Email Agent

Agreement to receive calls and other info provided, including 100%

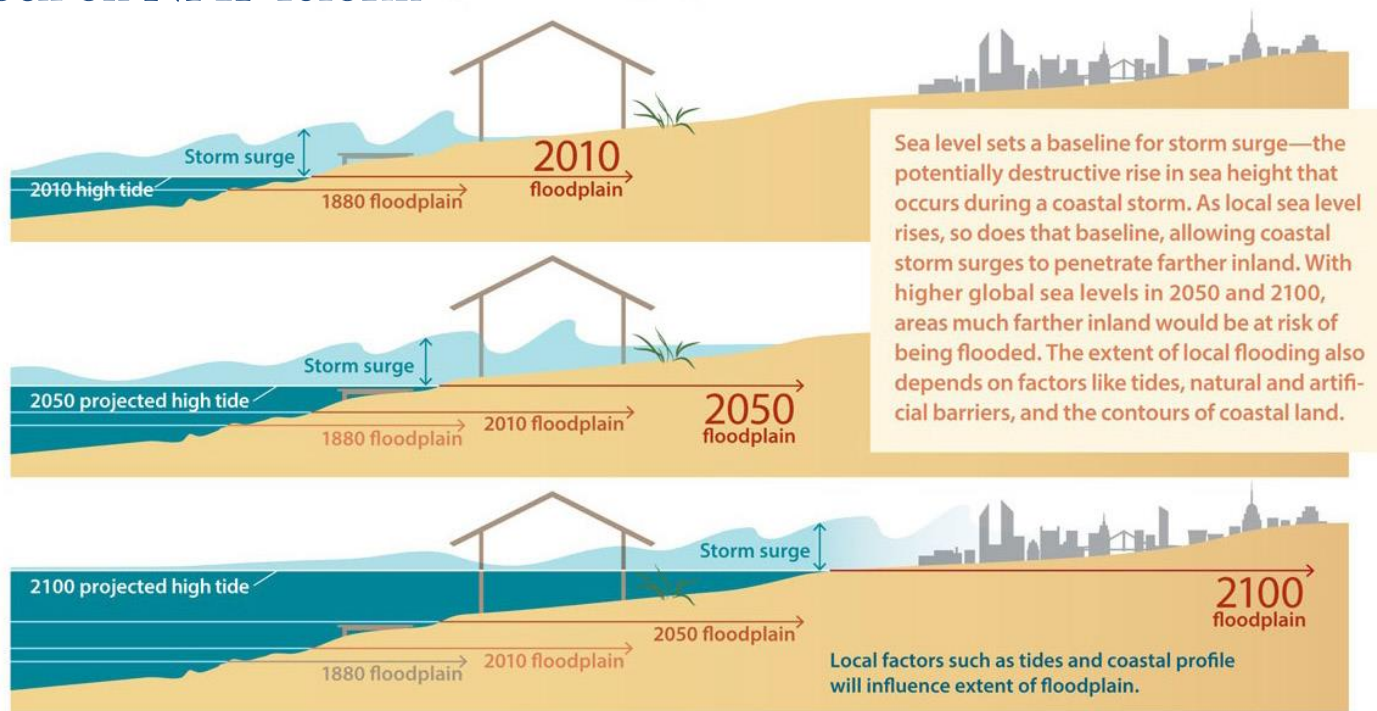
Rate Monthly Payment

conds

Started

Rising Insurance Rates

- Growing risk means expanding flood zones, higher premiums
- Updates coming to NFIP rate-setting system
- Ticking clock on NFIP reform



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Bond Rating Implications

➤ Weaker economy

➤ Increased maintenance costs

➤ Lost tax revenue

MOODY'S
INVESTORS SERVICE

Research Announcement: Moody's - Rising sea level signals need for US state and local governments to address growing climate risks

17 September 2020

New York, September 17, 2020 --

- By 2040, rising sea levels and greater risk of frequent flooding will affect most states' coastal counties, including more than 110 cities with a population greater than 50,000
- Economic weakening, higher maintenance costs and lost tax revenue are particular credit risks for state and local governments over the next several decades

Rising sea levels pose increasing credit risks for many US coastal state and local governments, with more frequent and severe flooding from high tides and storm surges from major weather events threatening economies, property values and critical infrastructure, Moody's Investors Service says in a report published today. While the federal government and many state and local governments have already taken steps to address these challenges, further investment in adaption and coordinated responses likely will be needed over the next several decades.

"More frequent coastal flooding as a result of climate change poses risks for localities, states and the federal government to large and growing populations and vulnerable infrastructure in coastal locations," said Moody's analyst, Blake Cullimore. "Economic weakening, higher maintenance costs and lost tax revenue are particular credit risks for state and local governments over a multi-decade horizon."

Locations on the Atlantic and Gulf coasts saw 100% to 150% increases in annual days of high-tide flooding between 2000 and 2019, National Oceanic and Atmospheric Administration data shows. And Moody's climate affiliate Four Twenty Seven estimates that by 2040 rising sea levels and possible flooding will affect all states' coastal counties, including more than 110 cities with a population greater than 50,000. North Carolina has five high-exposure counties, followed by New Jersey and Florida with three, Virginia with two and Maryland and Washington with one each.

Sea level rise adaption efforts such as installing storm surge walls are credit positive, but also capital intensive and likely to increase state and local government debt loads. Governments' ability to manage their debt while investing in efforts to protect developed coastal areas will become an increasingly important component of their credit quality, Moody's says. Government will have to balance investments made to meet environmental threats with funding to address needs such as services and

Questions?

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