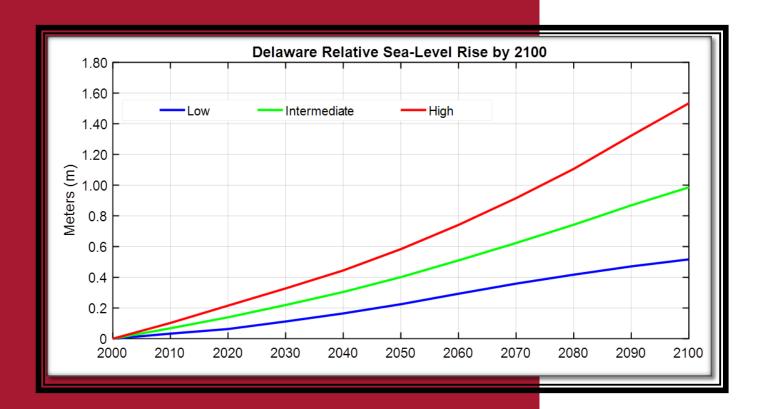


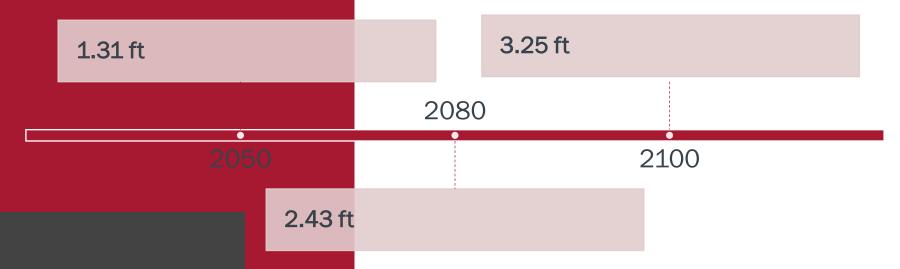
# **Sea Level Rise Primer**

"The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased, and not impaired, in value." Theodore Roosevelt, 1907



# Projected Sea Level Rise

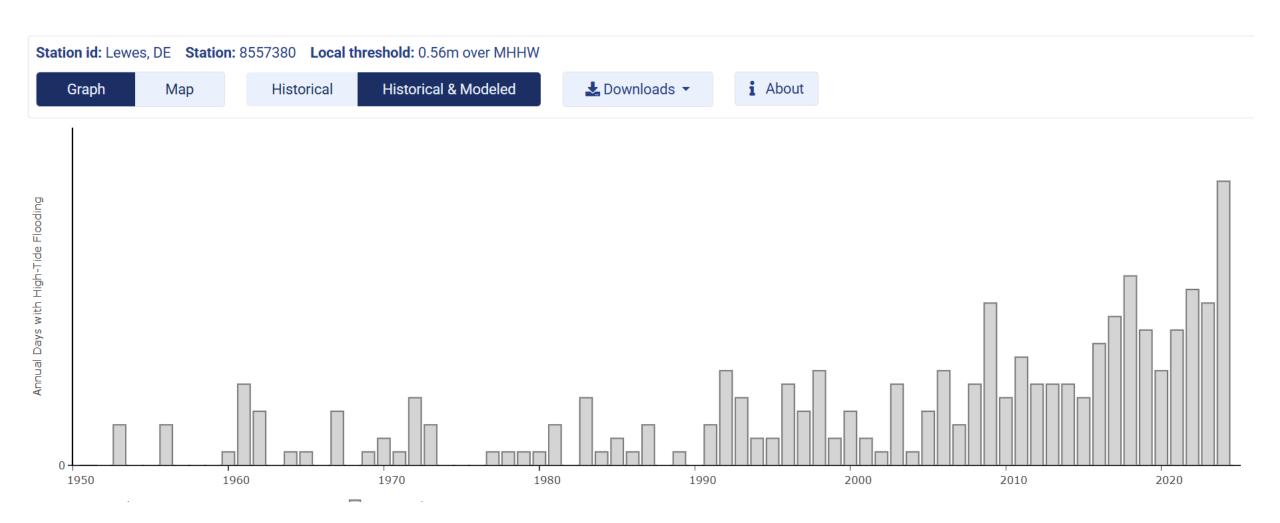
 2017 projections from University of Delaware



#### What Causes Flooding and Sea Level Rise in Coastal Areas

- On-land ice melt
- Subsidence of land itself
- Slowing of the Gulf Stream; pulling less water off the coast
- More intense rainfall events
- Higher precipitation rates
- Increased storm intensities
- Increased runoff from contributing drainage area
- Full moon/King Tides

# **How Much Flooding Has Been Experienced?**

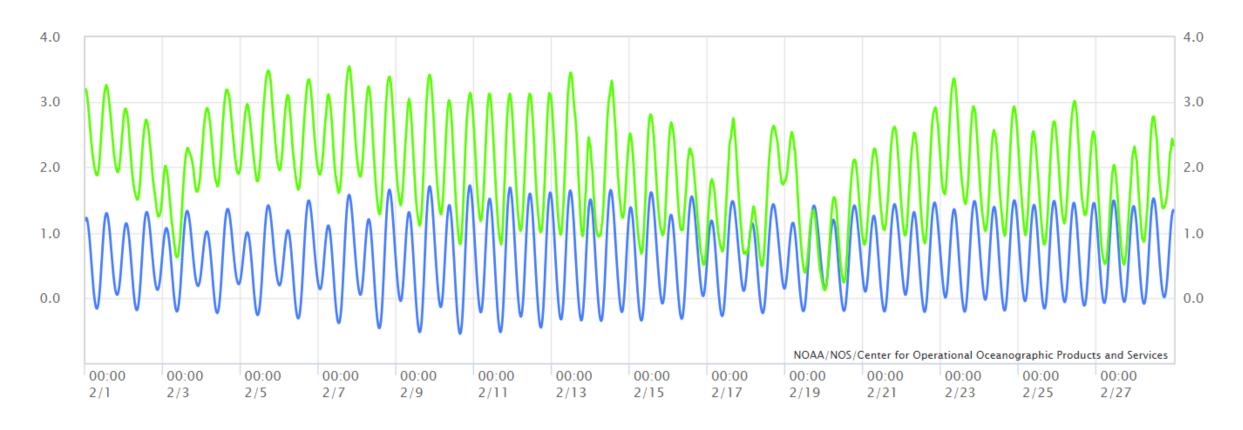


# **How Much Flooding to Expect?**

Nuisance? Problem?

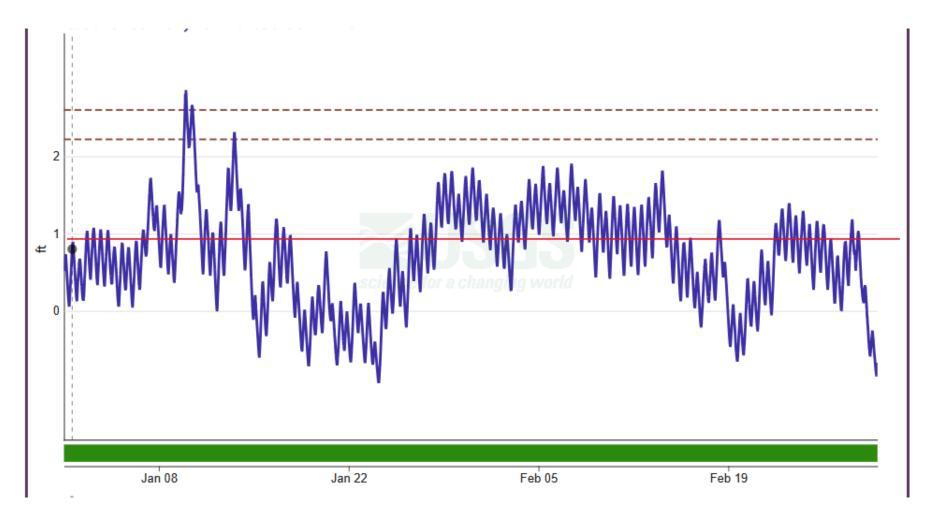
High Tide Flood Days	Number of Days
2000	4
2020	8
2024	21
2030 projected	15-30
2050 projected	50-135

#### **Dress Rehearsal For 2050?**



Jan/Feb 2024 actual tides @ Lewes Station

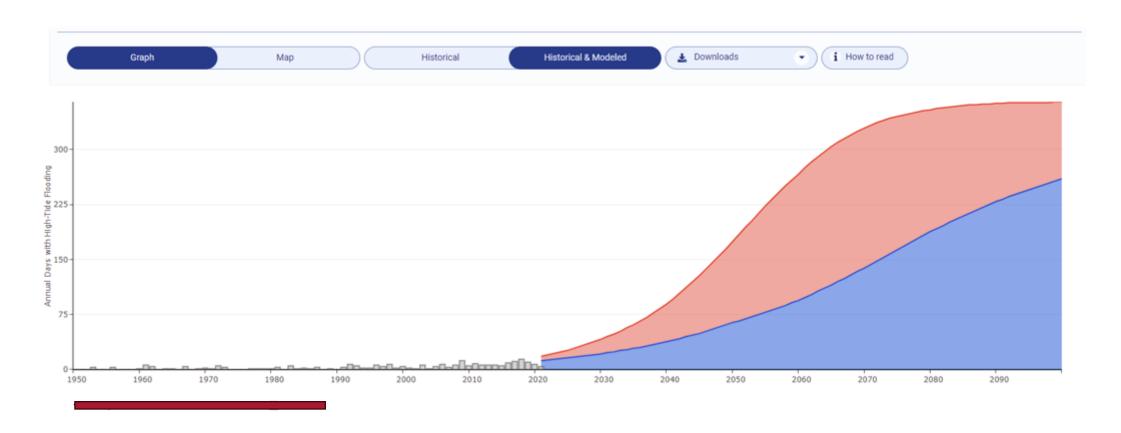
#### **Dress Rehearsal For 2050?**



Jan/Feb 2024 actual tides @ Jefferson Creek

### How Much Flooding to Expect in the Future?

Substantial increase in Flood Days



## What Effects Does SLR Have on South Bethany?

- Threat Multiplier
- Impacts our connection to nature
- Affects Insurance; rates, availability, coverages
- Saltwater intrusion to upland area
- Intense Rainfalls lead to standing water and temporary flooding

#### **Inundation in South Bethany and Surrounding Areas?**

Inundation



**Public Lands** 



## Lay of the Land...

- Delaware is #5 at-risk state to climate driven disasters by NOAA
  - hurricanes, floods, wildfires
- Delaware is #5 at-risk state by Climate Check
  - Precipitation, heat, fire, drought, flood
- Delaware is the lowest lying state in the Country.
- Sussex County is the lowest county in the state.
- Coastal Sussex is one the most vulnerable areas in the County to all climate impacts.
- Impacts affect all of South Bethany

