

DRAFT

Chuck's update to the 40-year history of high-tide data for Easy Street from NOAA's Nantucket Gauge #8449130

Scope:

- Reviewed previous data set and my analysis performed. All still good.
- Identified the amount of missing data by year and use in trend analysis.
- Added data for years 2020 and 2021 (Dec. 2021 not available yet)
- Compared results with the NASA sea level change flooding days projection tool
- Identified NOAA MHHW projections for 2030 and 2040 on a graph for reference

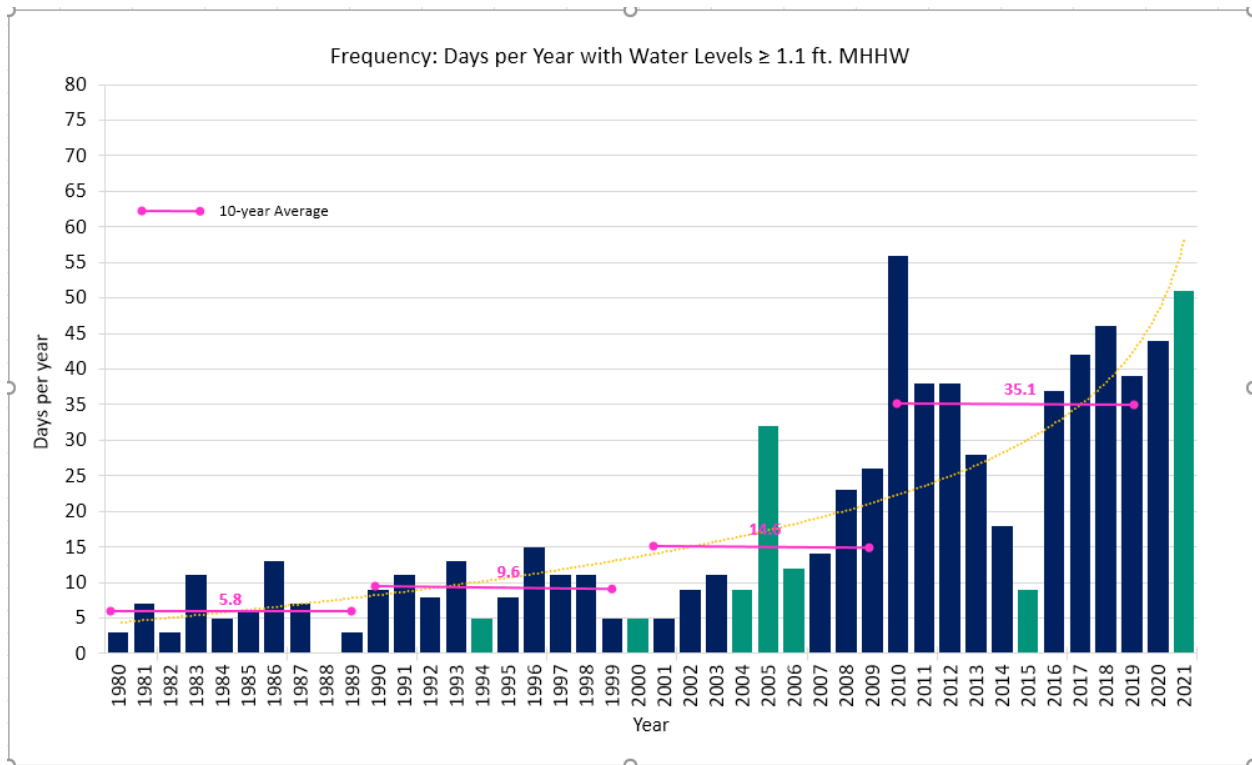


Figure 1. 42 years of data plotted representing the number of days having a high-tide elevation at which water will cover the surface of Easy Street at the lowest point. Green bars represent years with missing data (possibly undercounting days at or above 1.1 ft MHHW).

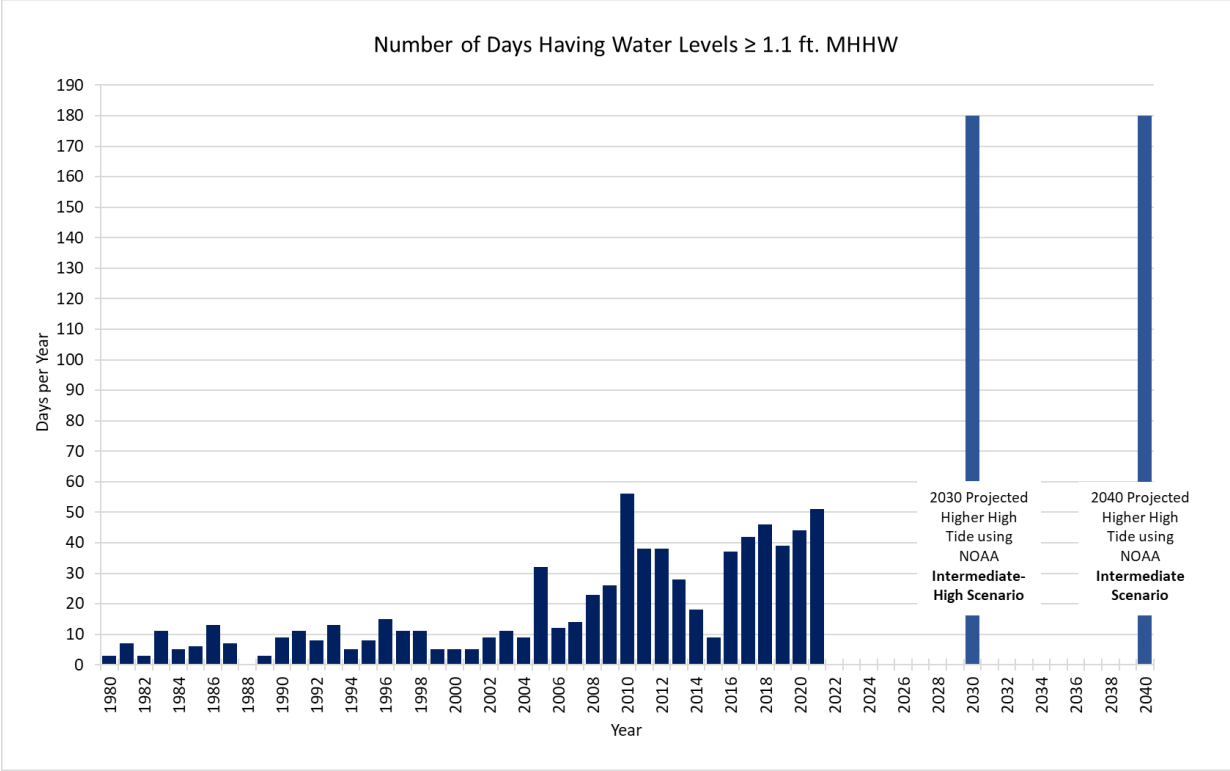


Figure 2. 42 years of past tide data alongside MHHW projections by NOAA for both the Intermediate High Scenario and the Intermediate High Scenarios. Note that MHHW is the preferred datum to reference flooding that is exceeded 180 days per year on average. This data seems to indicate, on average, high-tide water levels will be able to cover Easy Street at least every other day within a near term range of 10-15 years and perhaps closer to 20-30 years. The rate of increase of future sea level rise is a significant unknown (considered to increase as years progress) making the 2030 NOAA Intermediate-High Scenario and flooding frequency more believable when observed against the 42 year history.