

2023 DECEMBER 18 WINTER STORM AT MOON GARDEN PIER

HOW BAD WAS IT?

The December 18, 2023 storm produced a storm tide of 12ft at Diamond Cove. With an open exposure to Hussey Sound, the Moon Garden is particularly vulnerable to wave and swell action, and storm tides between 11ft and 12ft frequently overtop this infrastructure.

While much of Maine's coastline has evolved under prevailing northeasterly storm conditions, southeasterly storms can concentrate wave energy on shorelines that experience less frequent exposure to severe wave action.

The Grinch storm was part of a recent pattern of powerful coastal storms that approached Maine from the southeast rather than the more typical northeast direction.

| STORM AND SURGE TIDAL STATS FROM 1912-2023 (MGS) | | |
|--|------------------|-----------------|
| frequency | storm surge (ft) | storm tide (ft) |
| every year | 2 | 11.7 |
| every 5 years | 2.9 | 12.6 |
| every 10 years | 3.3 | 12.9 |
| every 25-100yrs | +4 | 13.4-14.1 |

TIDAL STATS DO NOT INCLUDE WAVE HEIGHT OR SWELLS. TYPICAL WAVE HEIGHTS IN CASCO BAY RANGE FROM 1-3 FEET.

HIGH WATER MARK

SEVERE STORM SURGE +4-4.7FT

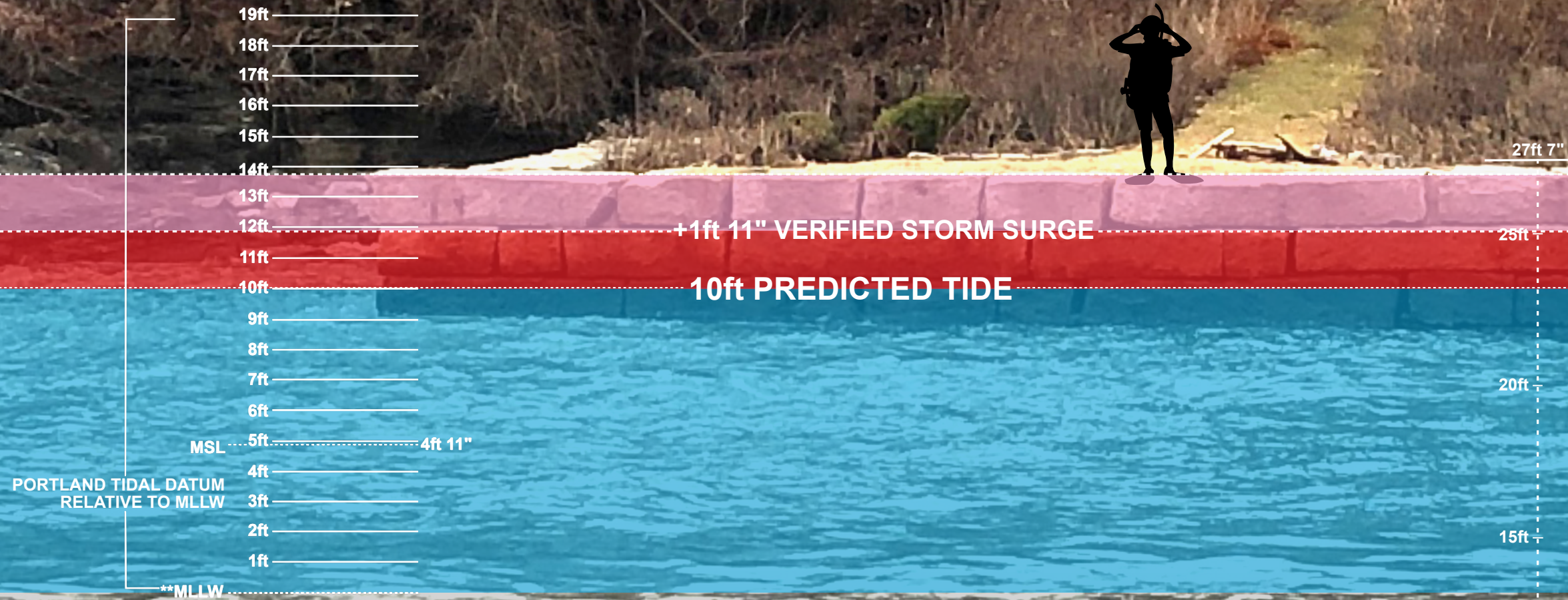
5-10 YEAR STORM SURGE +3FT

ANNUAL STORM SURGE +2FT

PREDICTED TIDE HEIGHT

SOURCE LINKS:

[MGS STORM SURGE AND TIDE FAQs](#)
[PORTLAND TIDAL STATION 8418150](#)
[DIAMOND COVE SEA LEVEL RISE PROJECTIONS](#)



TIDAL DATUM, TIDE HEIGHT AND PIER TO SCALE