



Figure 1: Aerial view from Google Earth of the Oyster Harbor area with referenced assets labeled. The yellow outlines indicate the locations of the proposed project.

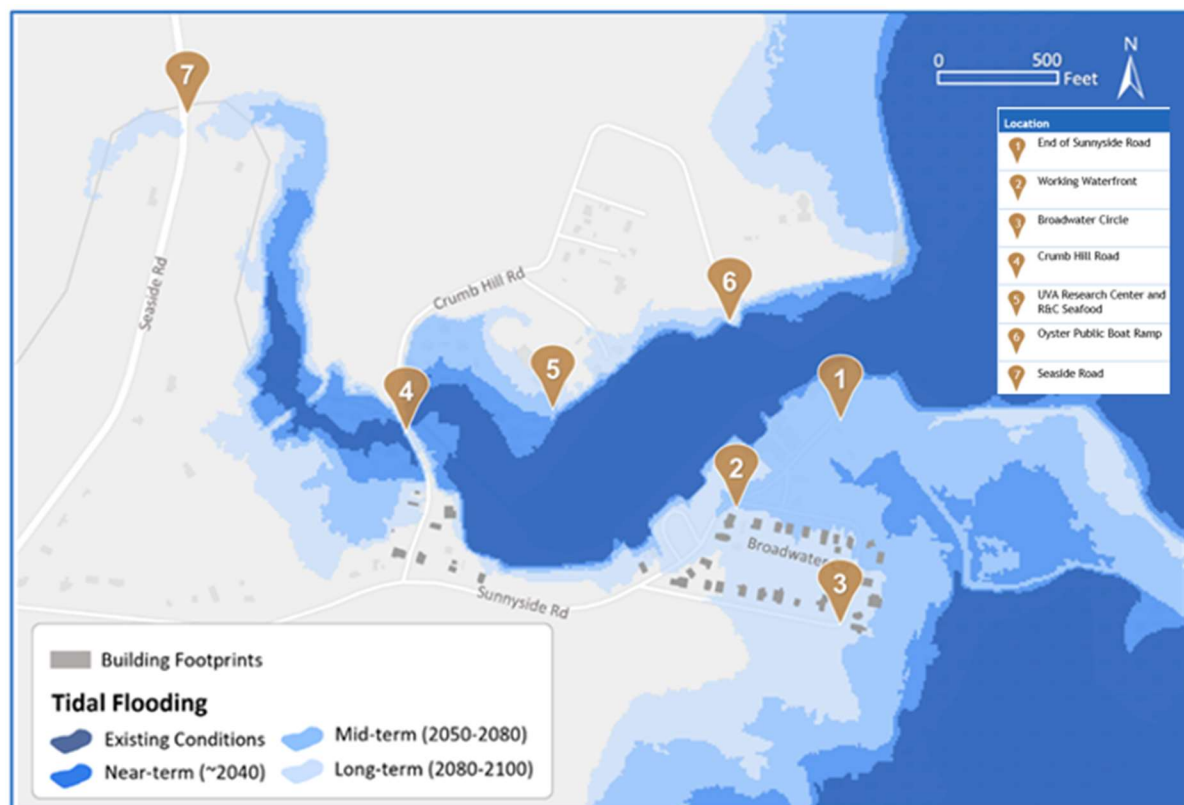


Figure 2: Tidal flooding (MHW) extent by planning horizon with near term representing 1.5 feet of sea level rise, mid-term representing 3 feet, and long-term representing 4.5 feet. Numbered reference locations used for analysis and discussion.



Figure 3: The combination of the NFWF (green) and proposed CFPF (yellow) design elements provide flood protection for Oyster Village. \*Location of stormwater pump to be determined during preliminary design.

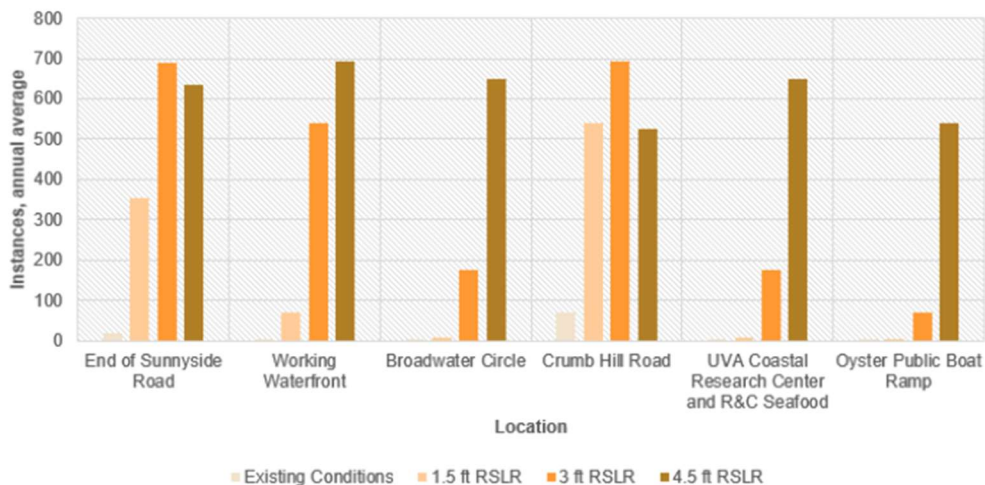


Figure 4: Chronic flood frequency instances at each location of interest (see figure 3) if the project is not implemented. Note the decrease observed for the End of Sunnyside Road and Crumb Hill Road between 3ft and 4.5ft SLR indicates that more area is projected to become permanently inundated.



Location	Present	Near-Term	Mid-Term	Long-Term
1 End of Sunnyside Road	Chronic	Inundated Daily	Inundated Daily	Inundated Daily
2 Working Waterfront	Moderate	Chronic	Chronic	Inundated Daily
3 Broadwater Circle	Moderate	Chronic	Chronic	Inundated Daily
4 Crumb Hill Road	Moderate	Moderate	Chronic	Chronic
5 UVA Research Center and R&C Seafood	Moderate	Moderate	Chronic	Inundated Daily
6 Oyster Public Boat Ramp	Moderate	Moderate	Chronic	Chronic
7 Seaside Road	Major	Moderate	Moderate	Chronic

Low Frequency  High Frequency

Table 1: Changes in flood event frequency, as defined in Table 2, with SLR by planning horizon for reference locations in Oyster Village.

Scenario	Moderate Flooding or 10% AEP	Major Flooding or 2% AEP	Major Flooding or 1% AEP	Extreme Flooding or 0.2% AEP
Today	1 in 10	1 in 50	1 in 100	1 in 500
2040-2050 (1.5 ft SLR)	1 in 3	1 in 14	1 in 42	1 in 277
2050-2080 (3 ft SLR)	1 in 2	1 in 4	1 in 12	1 in 154
2080-2100 (4.5 ft SLR)	1 in 1	1 in 2	1 in 4	1 in 81

Table 2: Changes in flood occurrence probability with increasing SLR.



Photo 1: Drone photo of the south side of Oyster Harbor showing the working waterfront and homes on Broadwater Circle. The view is from the marsh looking landward. (Courtesy: Zak Poulto)



Photo 2: Flooding from a sunny day event. The photo is taken from Sunnyside Road next to TNC's Habitat Restoration Facility looking toward the marsh. An aquaculture facility is visible on the left side of the photo, and all of Sunnyside Road from here to the marsh is flooded. (Courtesy: Bo Lusk)





Photo 3: Flooding from sunny day event showing TNC's Habitat Restoration Facility. (Courtesy: Bo Lusk)



Photo 4: Flooding underneath a home on Broadwater Circle from an event in January 2022. (Courtesy: Donna Fauber)



Photo 5: Photo taken from a home on Broadwater Circle of an event in January 2022. The view is northward showing buildings on the north side of the harbor. Everything in view between this house and the other side of the harbor is underwater, including Broadwater Circle (in front of the homes), Sunnyside Road (where the telephone poles and stop sign are). A line of vegetation is visible along the bulkhead. The stop sign in the photo indicates where Sunnyside Drive and Broadwater Circle meet. (Courtesy: Donna Fauber)





Photo 6: Flooding of the homes and road on Broadwater Circle during an event in January 2025.  
(Courtesy: Donna Fauber)