

Sea Level Rise Inundation Maps Summary

The sea-level rise inundation maps for the Town of Fenwick Island were developed by combining the present-day tidal datum mean higher high water (MHHW) with projections of sea-level rise to estimate what areas would be inundated by future MHHW conditions. A total of 6 scenarios were mapped representing 2030 through 2080 at 10-year intervals. Inundation extents were mapped using GIS software by comparing each future MHHW condition to a LiDAR-derived terrain.

The sea-level rise values for each future scenario were interpolated from the intermediate curve of the State of Delaware's 2017 sea-level rise projections. Each map illustrates the extent of inundation and highlights buildings and roads affected by that inundation. Inundation is expected to primarily affect buildings and roads west of SR1 which is characterized by flat, low-lying topography. The 2030, 2040, and 2050 scenarios affect approximately 10 buildings or less; however, flooding extents escalate in the later scenarios (2060-2080) affecting appreciably more buildings and roads. This is reflected in Table 1 summarizing the percent of buildings and roads inundated in each scenario. Note, this analysis did not include any effects sea-level rise may have on long-term erosion of the ocean shoreline.

Table 1. Summary of inundation impacts in Fenwick Island.

Year	Percent of Buildings Inundated		Percent of Road Inundated
	Entire Town	West of SR1	Entire Town
2030	0.3%	0.4%	0.0%
2040	0.3%	0.4%	0.0%
2050	1.5%	2.2%	1.5%
2060	7.8%	11.2%	12.5%
2070	23.1%	32.9%	33.0%
2080	57.3%	81.7%	42.6%