



COAST Model for City of Kingston - Modeled Water Levels and Vulnerability Assessment Results

Year	Scenario	Storm Intensity (return period in years)	Predicted Elevation of Flood Height from FEMA Flood Insurance Study, 2007 NAVD88 (ft.) ¹	COAST Model of Sea Level Rise Above MHHW in 2013 Selected by Kingston (in./ft) ²		COAST Model Total Flood Elevation for Each Scenario NAVD 88 (ft.)	COAST Model Expected Damage to the Value of All Buildings & Improvements From This Single Storm Incident in the Scenario Year (\$ Million)	COAST Model Expected Damage to the Value of Waste Water Treatment Plant Only From This Single Storm Incident in the Scenario Year (\$ Million)	COAST Model Cumulative Expected Damage to the Value of All Buildings & Improvements From All Storms, 2013 to Scenario Year (\$ Million) ³	COAST Model Percent of Cumulative Expected Damage to the Value of All Buildings & Improvements From 2013 to Scenario Year Attributable to Sea Level Rise Only (Percent) ³
2013	1 No SLR	10 yr	6.0	0	0	6.0	12.0	8.7	n/a	n/a
2013	2 No SLR	100 yr	8.2	0	0	8.2	21.7	16.8	n/a	n/a
2060	3 Lo SLR	10 yr	6.0	20	1.67	7.7	18.8	14.4	69.0	26.8%
2060	4 Lo SLR	100 yr	8.2	20	1.67	9.9	24.7	18.8	69.0	26.8%
2060	5 Hi SLR	10 yr	6.0	36	3	9.0	22.0	16.8	73.5	31.7%
2060	6 Hi SLR	100 yr	8.2	36	3	11.2	29.5	22.2	73.5	31.7%
2100	7 Lo SLR	10 yr	6.0	33	2.75	8.8	21.9	16.8	82.7	28.6%
2100	8 Lo SLR	100 yr	8.2	33	2.75	11.0	27.5	20.6	82.7	28.6%
2100	9 Hi SLR	10 yr	6.0	68	5.67	11.7	29.7	22.2	88.3	34.8%
2100	10 Hi SLR	100 yr	8.2	68	5.67	13.9	34.5	24.8	88.3	34.8%

¹ Tidal state is included in FEMA FIS predicted flood elevations for the 10 year and 100 year storms.

² Elevation of Mean Higher High Water (MHHW) in year 2013 is 3.0 feet (NAVD 88).

³ Discount Rate of 3.3 percent applied.