

**Supplementary Table 1.** Average FIS Transect Data by Return Period (feet).

State	County	10-year	50-year	100-year	500-year
TX	Cameron	4.1	7.2	9	12.2
TX	Galveston	8.1	10.4	13.2	17.1
MS	Harrison	5.8	14.8	17.8	23.2
FL	Bay	3.3	5.2	7.6	9.1
FL	Pinellas	5.5	7.9	9.1	12.3
FL	Martin	2.7	4	5	6.6
FL	St. Johns	4.8	6.4	7.7	9.8
SC	Charleston	5.5	7.9	9.9	14.4
NC	Carteret	0	0	8.1	10.55
VA	Virginia Beach	4.4	5.7	6.2	7.5
NJ	Ocean	2.2	1.6	6.5	2.2
MA	Dukes	4.1	6.4	7.8	10.9
NH	Rockingham	7.24	7.98	8.36	9.43

**Supplementary Table 2.** Descriptive Statistics for the  $a$  Parameter for Thirteen Coastal Sites.

State	County	Minimum $a$	Average	Maximum $a$	Standard deviation
TX	Cameron	1.26	2.05	2.96	0.26
TX	Galveston	1.83	2.3	2.80	0.21
MS	Harrison	4.02	4.38	4.64	0.14
FL	Bay	0.52	0.99	1.90	0.46
FL	Pinellas	1.13	1.73	2.22	0.26
FL	Martin	0.80	0.99	1.13	0.11
FL	St. Johns	0.67	1.35	2.06	0.21
SC	Charleston	1.78	2.25	3.21	0.26
NC	Carteret	0.62	1.54	2.17	0.44
VA	Virginia Beach	0.35	0.76	1.11	0.11
NJ	Ocean	1.26	2.05	2.96	0.26
MA	Dukes	1.22	1.86	2.69	0.45
NH	Rockingham	0.34	0.34	0.34	0