

## **Appendix VI**

Recommended SBEACH Input Values  
for  
St. Johns, Volusia, Indian River, Brevard Counties

**Final SBEACH Input Settings – for 15 and 25yr storm simulation for SJ Co.**

For all Storm Tide Hydrographs - Use BSRC-generated 15 and 25yr hydrographs adjusted proportionally to peak elevation shown for each range location segment shown below; storm duration for all cases is 36 hrs. All elevations listed below are in NAVD88 vertical datum. All wave input depth values were set at 40 ft. (NAVD88); with no wave randomization. All storm time steps were set at 5 minutes. Water temp. is set at 27 deg.

<u>Range Segment</u>	<u>Grain Size</u>	<u>K; Transport Rt Coeff.</u>	<u>Overwash Parameter</u>	<u>Coeff. Slope Dep</u>	<u>Transport Rt. Decay Coeff.</u>	<u>Max. Slope before Aval.</u>	<u>Constant Wave Condition</u>	<u>Adj. Hydro Peak Elev; 15-25</u>
1-99	0.3 mm	2xe-006	0.005	0.005	0.5	45	10 ft. - 10 sec.	4.6 ft.; 5.4
100-115	0.4 mm	2xe-006	0.005	0.005	0.5	30	10 ft. - 10 sec.	4.6 ft.; 5.4
116-122	0.55 mm	2xe-006	0.005	0.005	0.5	25	10 ft. - 10 sec.	4.6 ft.; 5.4
St. Augustine Inlet								
123-151	0.2 mm	2.5xe-006	0.005	0.005	0.5	45	10 ft. - 10 sec.	4.7 ft.; 5.7
152-186	0.1 mm	2.5xe-006	0.005	0.005	0.5	45	10 ft. - 10 sec.	5.0 ft.; 5.9
187-195	0.15 mm	2.5xe-006	0.005	0.005	0.5	45	10 ft. - 10 sec.	5.0 ft.; 5.9
Matanzas Inlet								
198-209	0.45mm	5xe-007	0.005	0.002	0.5	20	8 ft. - 8 sec.	4.9 ft.; 5.8

**Final SBEACH Input Settings – for 15 and 25yr storm simulation for VO Co.**

For all Storm Tide Hydrographs - Use BSRC-generated 15 and 25yr hydrographs adjusted proportionally to peak elevation shown for each range location segment shown below; storm duration for all cases is 36 hrs. All elevations listed below are in NAVD88 vertical datum. All wave input depth values were set at 40 ft. (NAVD88); with no wave randomization. All storm time steps were set at 5 minutes. Water temp. is set at 27 deg. Grain size values used for VO Co. were estimates based on evaluation of beach slopes from 4 different profile survey data sets and correlation of beach slope with grain size from SJ Co., and some value confirmation from sediment data collection. K and slopes for avalanching were also based on beach slope evaluation from SJ Co.

<u>Range Segment</u>	<u>Grain Size</u>	<u>K; Transport Rt Coeff.</u>	<u>Overwash Parameter</u>	<u>Coeff. Slope Dep</u>	<u>Transport Rt. Decay Coeff.</u>	<u>Max. Slope before Aval.</u>	<u>Constant Wave Condition</u>	<u>Adj. Hydro Peak Elev; 15-25</u>
1-25	0.25 mm	2xe-006	0.005	0.005	0.5	40	10 ft. - 10 sec.	3.7 ft.; 4.6
26-65	0.17mm	2.5xe-006	0.005	0.005	0.5	45	10 ft. - 10 sec.	3.7 ft.; 4.6
66-100	0.12 mm	2.5xe-006	0.005	0.005	0.5	45	10 ft. - 10 sec.	3.9 ft.; 4.8
101-148	0.12 mm	2.5xe-006	0.005	0.005	0.5	45	10 ft. - 10 sec.	3.9 ft.; 4.8
Ponce de Leon Inlet								
149-170	0.13 mm	2.5xe-006	0.005	0.005	0.5	45	10 ft. - 10 sec.	3.9 ft.; 4.9
171-190	0.13 mm	2.5xe-006	0.005	0.005	0.5	45	10 ft. - 10 sec.	3.9 ft.; 4.8
191-205	0.17 mm	2.5xe-006	0.005	0.005	0.5	45	10 ft. - 10 sec.	3.7 ft.; 4.5
206-229	0.24 mm	2xe-006	0.005	0.005	0.5	40	10 ft. - 10 sec.	3.5 ft.; 4.3
230-234	0.24 mm	2xe-006	0.005	0.005	0.5	40	10 ft. - 10 sec.	3.5 ft.; 4.4

**Final SBEACH Input Settings – for 15 and 25yr storm simulation for IR Co.**

For all Storm Tide Hydrographs - Use BSRC-generated 15 and 25yr hydrographs adjusted proportionally to peak elevation shown for each range location segment shown below; storm duration for all cases is 36 hrs. All elevations listed below are in NAVD88 vertical datum. All wave input depth values were set at 40 ft. (NAVD88); with no wave randomization. All storm time steps were set at 5 minutes. Water temp. is set at 27 deg. Grain size values used for IR Co. were estimates based on evaluation of beach slopes from 5 different profile survey data sets and correlation of beach slope with grain size from SJ Co., and some value confirmation from sediment data collection. K and slopes for avalanching were also based on beach slope evaluation from SJ Co, as well as, SBEACH calibration results from BE Co.

<u>Range Segment</u>	<u>Grain Size</u>	<u>K; Transport Rt Coeff.</u>	<u>Overwash Parameter</u>	<u>Coeff. Slope Dep</u>	<u>Transport Rt. Decay Coeff.</u>	<u>Max. Slope before Aval.</u>	<u>Constant Wave Condition</u>	<u>Adj. Hydro Peak Elev; 15-25</u>
1-84	0.35 mm	2.5xe-006	0.005	0.005	0.5	35	12 ft. - 9 sec.	2.6 ft.; 3.7
85-105	0.2mm	2.5xe-006	0.005	0.005	0.5	40	12 ft. - 9 sec.	2.6 ft.; 3.7
106-109	0.35 mm	2.5xe-006	0.005	0.005	0.5	35	12 ft. - 9 sec.	2.6 ft.; 3.7
110-119	0.2 mm	2.5xe-006	0.005	0.005	0.5	40	12 ft. - 9 sec.	2.6 ft.; 3.7

**Final SBEACH Input Settings – for 15 and 25yr storm simulation for BE Co.**

For all Storm Tide Hydrographs - Use BSRC-generated 15 and 25yr hydrographs adjusted proportionally to peak elevation shown for each range location segment shown below; storm duration for all cases is 36 hrs. All elevations listed below are in NAVD88 vertical datum. All wave input depth values were set at 40 ft. (NAVD88); with no wave randomization. All storm time steps were set at 5 minutes. Water temp. is set at 27 deg.

<u>Range Segment</u>	<u>Grain Size</u>	<u>K; Transport Rt Coeff.</u>	<u>Overwash Parameter</u>	<u>Coeff. Slope Dep</u>	<u>Transport Rt. Decay Coeff.</u>	<u>Max. Slope before Aval.</u>	<u>Constant Wave Condition</u>	<u>Adj. Hydro Peak Elev; 15-25</u>
1-75	0.26 mm	2.5xe-006	0.005	0.005	0.5	45	12 ft. - 9 sec.	2.7 ft.; 3.8
76-94	0.52 mm	1.5xe-006	0.005	0.005	0.5	37	12 ft. - 9 sec.	2.4 ft.; 3.6
95-150	0.36 mm	2.5xe-006	0.005	0.005	0.5	40	12 ft. - 9 sec.	2.5 ft.; 3.6
151-219	0.46 mm	2.5xe-006	0.005	0.005	0.5	29	12 ft. - 9 sec.	2.5 ft.; 3.5