2011 Long-Term Average Annual Erosion Rate

Methods Report – Summary Graphs & Tables

North Carolina Department of Environment & Natural Resources - Division of Coastal Management

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Data presented in this document are results from North Carolina's 2011 Long-Term Average Annual Erosion Rate Update Report. These data are illustrated in graphs and summary tables for each barrier island or region.

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Introduction: "How to Read Graphs and Tables"

Data presented in the following graphs and tables are the results from North Carolina's 2011 long-term average annual erosion rate update study. They are the measurement of oceanfront shoreline change over a period of time using a single early shoreline of varying dates (NOS T-sheets & photos - 1933, 1940, 1942, 1943, 1944, 1946, 1949, 1952, & 1962) and a current shoreline (USDA NAIP 2009); approximately 47 to 76 years define "long-term." Data in each graph represent the "3 phases" of data analysis (raw, smoothed, and blocked calculations) used in this study to generate oceanfront development setback factors :

1. **Raw** data calculations using US Geological Survey's (USGS) Digital Shoreline Analysis System (DSAS) version 4.2.3 extension for ESRI's ArcMap® version 9.3.1
2. **Smoothed** data calculations using Microsoft Excel 2007®
3. **Blocked** data calculations using Microsoft Excel 2007®

Definitions:

- **Raw Data** – are the measurements of change between 2 shorelines (early and current) over time at specific points of reference (transect). These data are the actual erosion rate as calculated for each transect.
- **Smoothed Data** – are results from calculating a 17-point running average for each erosion rate. An individual rate (at each transect) is averaged with 16 neighboring rates, 8 from each side (left and right).
- **Blocked Data** - are results from grouping "like" shoreline segments based on average rates. These data represent the Ocean Hazard Setback or "Setback Factors" used to calculate oceanfront development setback.
- **Erosion** – data with **positive values = erosion .** These segments of shoreline are eroding.
- **Accretion** – data with **negative values = accretion.** These segments of shoreline are "growing."

How to Read Graphs:

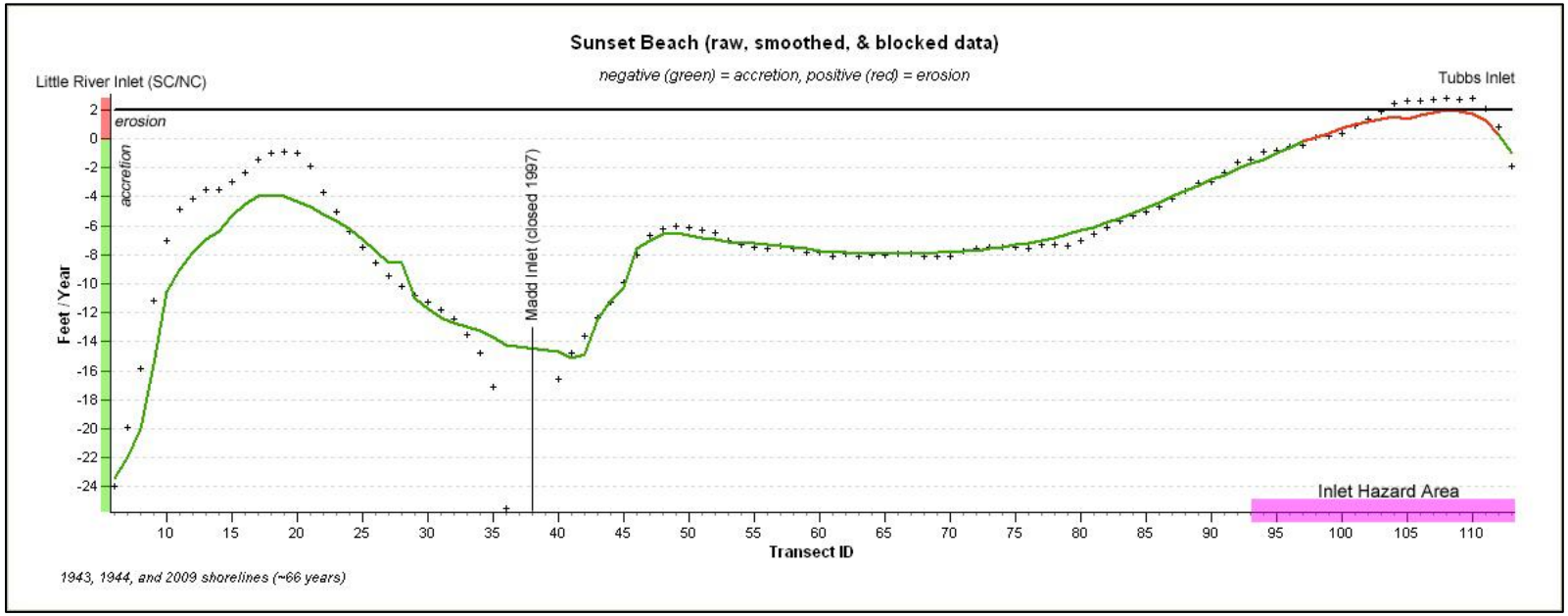
- Points (black crosshairs) are raw erosion rate data.
- Red and/or Green lines represent the smoothed data. **Positive** values (**red** line segments) represent **erosion**; and **negative** values (**green** line segments) represent **accretion**.
    - **POSITIVE = RED LINE = EROSION**
    - **NEGATIVE = GREEN LINE = ACCRETION**
- Black line ("stair-stepping" in appearance) represent the blocked erosion rates (Ocean Hazard Setback or "setback factors").

How to Read Tables:

Associated measurements and statistics are based on values per transect. Transects are spaced 50 meters apart, or 164.05 feet. Based on number of transects used for each barrier island, or region, a translation is made via calculations to get length of shoreline.

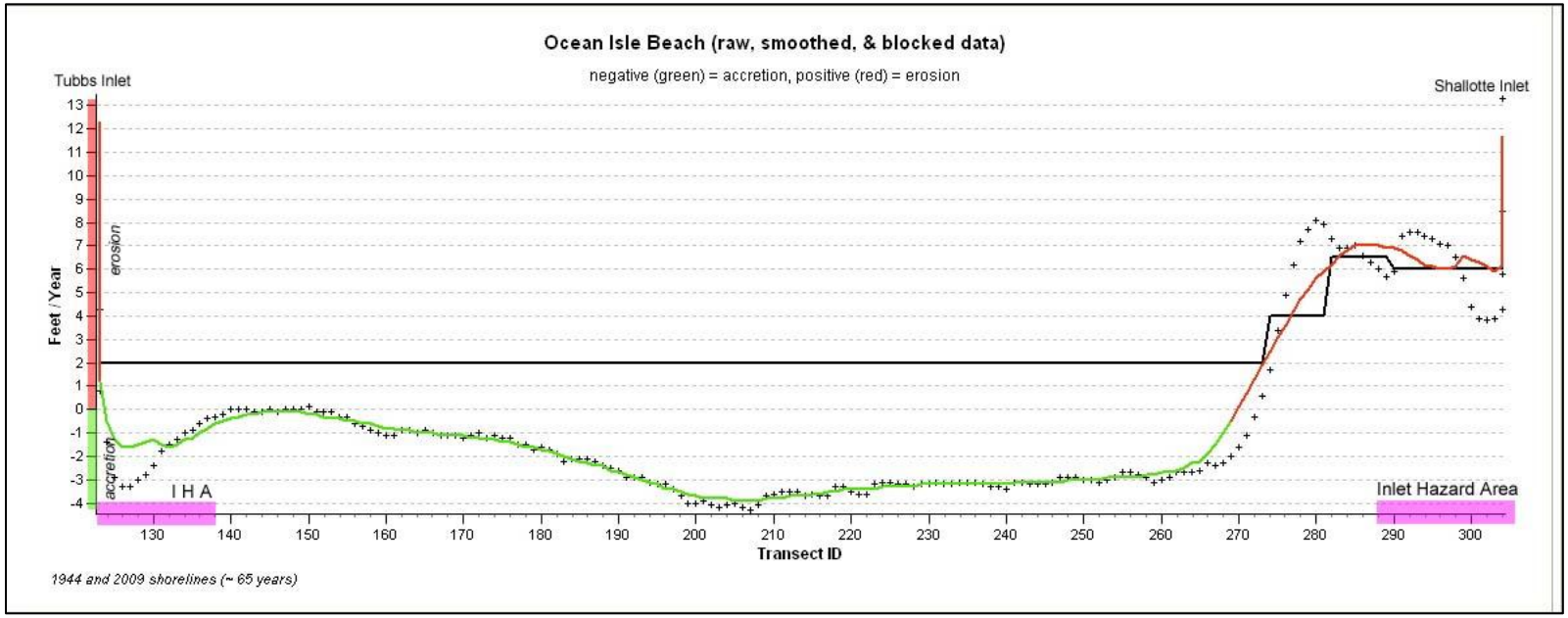
- **Shoreline Analyzed :**
  - Transect = number of transects analyzed
  - Meters = [(number of transects) -1] x 50
  - Feet = Meters x 3.281
  - Miles = Feet/5280
  - % = Miles of shoreline for category divided by total miles
- **Values based on "smoothed" erosion rates:**
  - **Erosion** – represents actual erosion based on "smoothed" rates (erosion more than zero).
  - **Accretion** – represents actual accretion based on "smoothed" rates.
  - **Data Gaps/Missing Data** – in areas where an inlet has closed, or inlet has demonstrated high erosion or accretion, one of the two shorelines may have a gap as a result.
  - **Eroding 2 ft/yr or less** – percentage of shoreline with "smoothed" erosion rates between 0 and 2.
  - **Eroding 2 to 5 ft/yr** – percentage of shoreline with "smoothed" erosion rates between 2 and 5.
  - **Eroding 5 to 8 ft/yr** – percentage of shoreline with "smoothed" erosion rates between 5 and 8.
  - **Eroding > 8 ft/yr** – percentage of shoreline with "smoothed" erosion rates greater than 8.
  - **Increased Erosion (1998 to 2009)** – based on a comparison of "smoothed" erosion rates with those from the 2003 update study at each transect, this value represents the percentage of increased erosion between 1998 and 2009 shorelines.
  - **Increased Accretion (1998 to 2009)** - based on a comparison of "smoothed" erosion rates with those from the 2003 update study at each transect, this value represents the percentage of increased accretion erosion between 1998 and 2009.
  - **No Change** - based on a comparison of "smoothed" erosion rates with those from the 2003 update study at each transect, this value represents the percentage of change between the two studies.
- **Values based on "blocked" erosion rates:**
  - **Block value (setback factor) increase** - based on a comparison of "blocked" erosion rates (setback factors) with those from the 2003 update study at each transect, this value represents the percentage of increase.
  - **Block value (setback factor decrease -** based on a comparison of "blocked" erosion rates (setback factors) with those from the 2003 update study at each transect, this value represents the percentage of decrease.
  - **Block Value (setback factor) no change -** based on a comparison of "blocked" erosion rates (setback factors) with those from the 2003 update study at each transect, this value represents the percentage of no change.

Sunset Beach (including Bird Island)



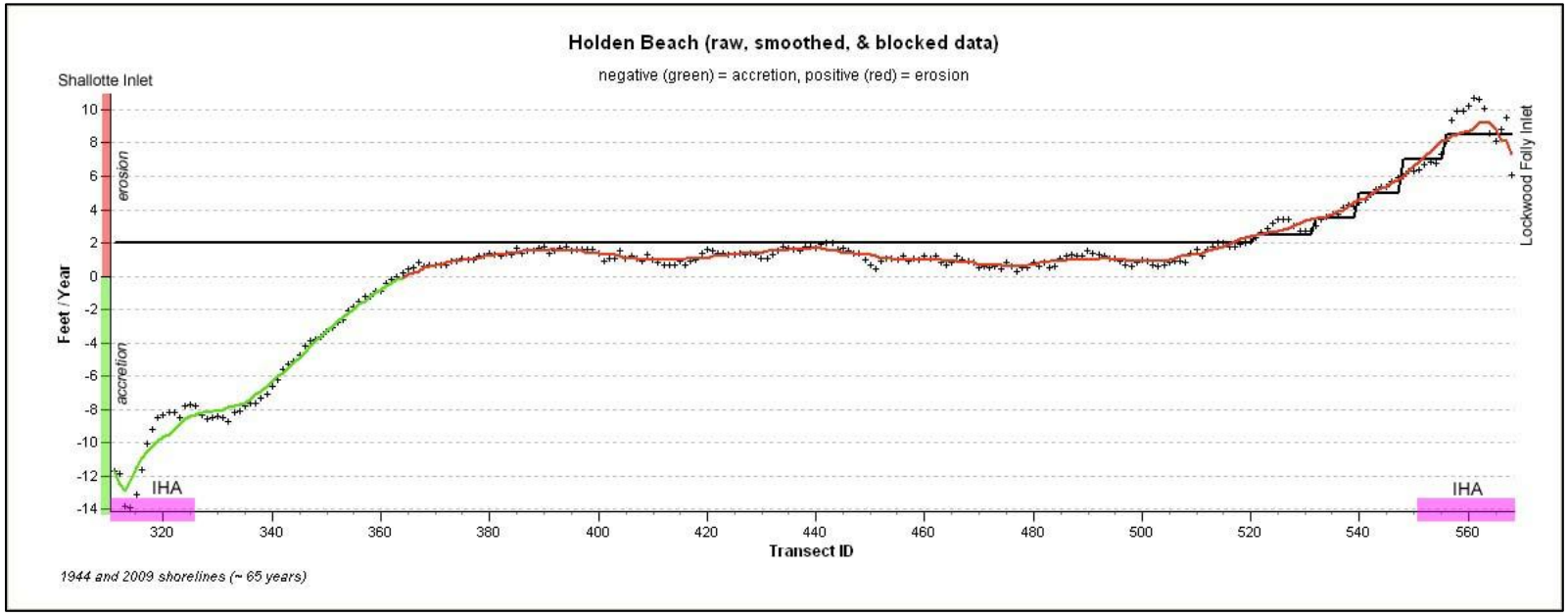
Sunset Beach (including Bird Island)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**108**	**5350**	**17553.4**	**3.3**	**100.0%**	**-6.2 ft/yr (accretion)**	**2 ft/yr (erosion)**	**-23.4 ft/yr (accretion)**
Erosion	15	700	2296.7	0.4	13.9%			
Accretion	90	4450	14600.5	2.8	83.3%			
Data Gap/Missing Data	*3*	*100*	*328.1*	*0.1*	*2.8%*			
Eroding 2ft/Year or Less (>0, <=2)	15	700	2296.7	0.4	13.9%			
Eroding 2 to 5 Feet/Year (>2, <=5)	0							
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	4	150	492.2	0.1	3.7%			
Increased Accretion (1998 - 2009)	0				0.0%			
No Change	104	5150	16897.2	3.2	96.3%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	108	5350	17553.4	3.3	100.0%			

Ocean Isle Beach



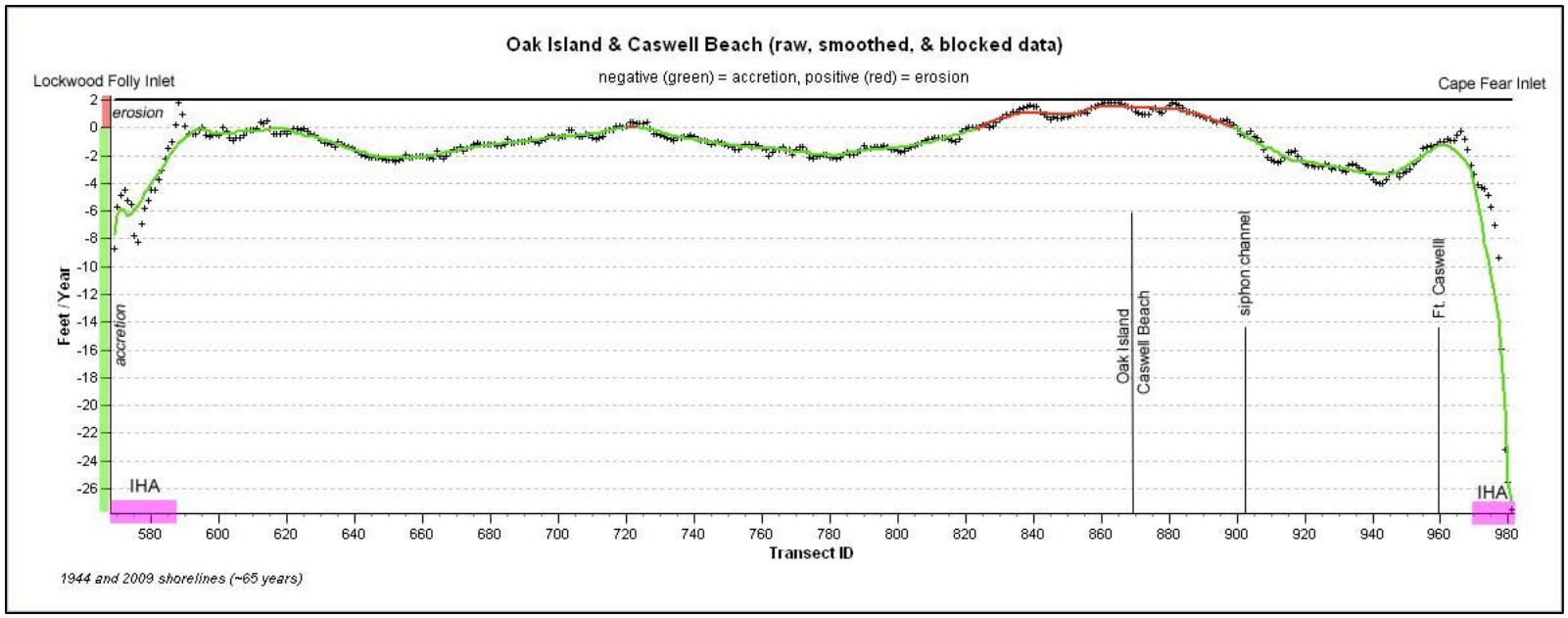
Ocean Isle	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**186**	**9250**	**30349.3**	**5.7**	**100.0%**	**-0.49 ft/yr (accretion)**	**12.3 ft/yr (erosion)**	**-3.9 ft/yr (accretion)**
Erosion	40	1950	6398.0	1.2	21.5%			
Accretion	146	7250	23787.3	4.5	78.5%			
Data Gap/Missing Data	*5*	*200*	*656.2*	*0.1*	*2.7%*			
Eroding 2ft/Year or Less (>0, <=2)	5	200	656.2	0.1	2.7%			
Eroding 2 to 5 Feet/Year (>2, <=5)	5	200	656.2	0.1	2.7%			
Eroding 5 to 8 Feet Year (>5, <=8)	27	1300	4265.3	0.8	14.5%			
Eroding More Than 8 Feet/Year	3	100	328.1	0.1	1.6%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0				0.0%			
Increased Accretion (1998 - 2009)	13	600	1968.6	0.4	7.0%			
No Change	173	8600	28216.6	5.3	93.0%			
Blocking (Setback Factor) Changes per Transect						**2.7**	**2.0**	**6.5**
Block value (setback factor) increase	25	1200	3937.2	0.7	13.4%	2.0	2.0	2.0
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	161	8000	26248.0	5.0	86.6%			

Holden Beach



Holden Beach	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**258**	**12850**	**42160.9**	**8.0**	**100.0%**	**0.45 ft/yr (erosion)**	**9.3 ft/yr (erosion)**	**-12.9 ft/yr (accretion)**
Erosion	204	10150	33302.2	6.3	79.1%			
Accretion	54	2650	8694.7	1.6	20.9%			
Data Gap/Missing Data	0				0.0%			
Eroding 2ft/Year or Less (>0, <=2)	152	7550	24771.6	4.7	58.9%			
Eroding 2 to 5 Feet/Year (>2, <=5)	23	1100	3609.1	0.7	8.9%			
Eroding 5 to 8 Feet Year (>5, <=8)	7	300	984.3	0.2	2.7%			
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	3	100	328.1	0.1	1.2%			
Increased Accretion (1998 - 2009)	0				0.0%			
No Change	0	-50	-164.1	0.0	0.0%			
Blocking (Setback Factor) Changes per Transect						**2.6**	**2.0**	**8.5**
Block value (setback factor) increase	13	600	1968.6	0.4	5.0%	1.0	1.0	1.0
Block value (setback factor) decrease	80	3950	12960.0	2.5	31.0%	1.3	0.5	3.0
Block value (setback factor) No Change	165	8200	26904.2	5.1	64.0%			

Oak Island & Caswell Beach - (2 Tables)

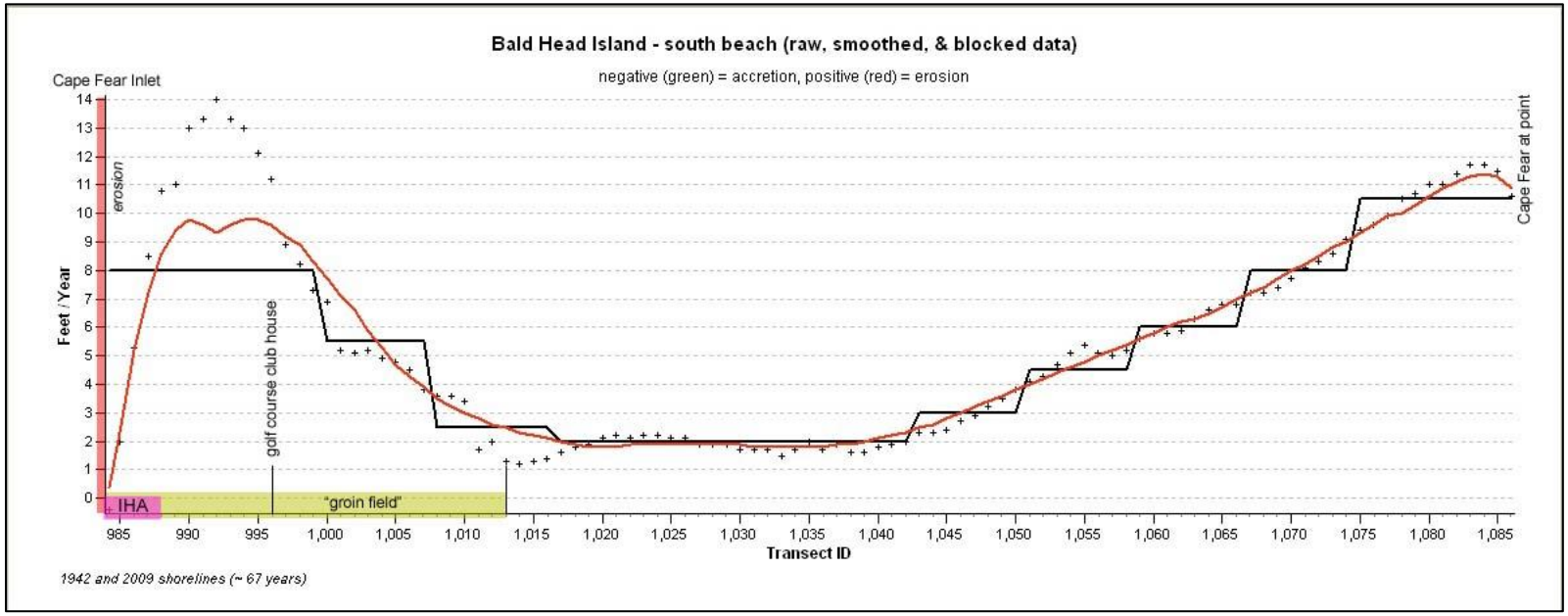


Oak Island	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**300**	**14950**	**49051.0**	**9.3**	**100.0%**	**-0.95 ft/yr (accretion)**	**1.5 ft/yr (erosion)**	**-7.7 ft/yr (accretion)**
Erosion	47	2300	7546.3	1.4	15.7%			
Accretion	253	12600	41340.6	7.8	84.3%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	47	2300	7546.3	1.4	15.7%			
Eroding 2 to 5 Feet/Year (>2, <=5)	0							
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	139	6900	22638.9	4.3	46.3%			
No Change	161	8000	26248.0	5.0	53.7%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	274	13650	44785.7	8.5	91.3%	2.5	1.0	3.5
Block value (setback factor) No Change	26	1250	4101.3	0.8	8.7%			

Oak Island & Caswell Beach (continued)

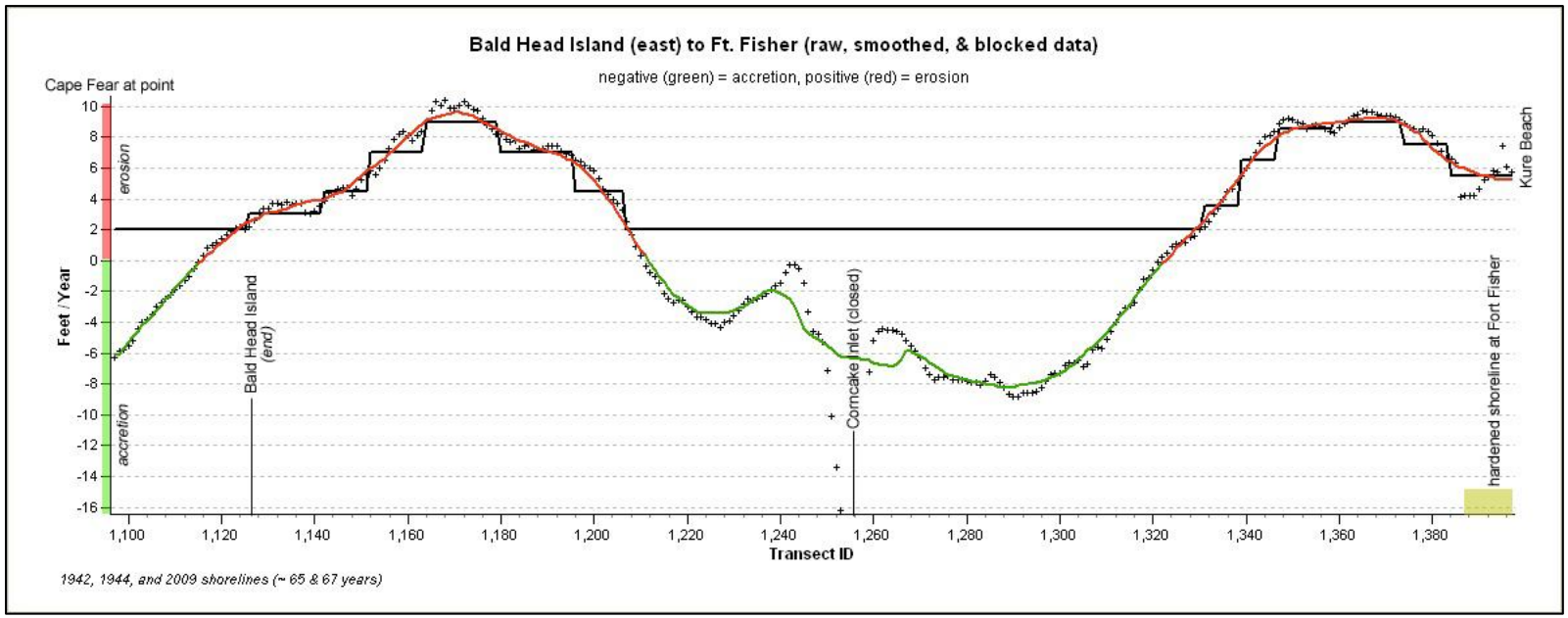
Caswell Beach (including Ft. Caswell)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**113**	**5600**	**18373.6**	**3.5**	**100.0%**	**-2.5 ft/yr (accretion)**	**1.4 ft/yr (erosion)**	**-26.8 ft/yr (accretion)**
Erosion	31	1500	4921.5	0.9	27.4%			
Accretion	82	4050	13288.1	2.5	72.6%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	31	1500	4921.5	0.9	27.4%			
Eroding 2 to 5 Feet/Year (>2, <=5)	0							
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	16	750	2460.8	0.5	14.2%			
No Change	97	4800	15748.8	3.0	85.8%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	37	1800	5905.8	1.1	32.7%	2.9	1.5	3.5
Block value (setback factor) No Change	76	3750	12303.8	2.3	67.3%			

Bald Head Island ("South Beach")



Bald Head Island (south beach)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**103**	**5100**	**16733.1**	**3.2**	**100.0%**	**5.3 ft/yr (erosion)**	**11.4 ft/yr (erosion)**	**No Accretion**
Erosion	113	5600	18373.6	3.5	109.7%			
Accretion	0	-50	-164.1	0.0	0.0%			
Data Gap/Missing Data	*2*	*50*	*164.1*	*0.0*	*1.9%*			
Eroding 2ft/Year or Less (>0, <=2)	23	1100	3609.1	0.7	22.3%			
Eroding 2 to 5 Feet/Year (>2, <=5)	30	1450	4757.5	0.9	29.1%			
Eroding 5 to 8 Feet Year (>5, <=8)	22	1050	3445.1	0.7	21.4%			
Eroding More Than 8 Feet/Year	28	1350	4429.4	0.8	27.2%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	0							
No Change	103	5100	16733.1	3.2	100.0%			
Blocking (Setback Factor) Changes per Transect						**5.3**	**2.0**	**10.5**
Block value (setback factor) increase	7	300	984.3	0.2	6.8%	1.1	0.5	2.0
Block value (setback factor) decrease	74	3650	11975.7	2.3	71.8%	2.6	1.0	4.5
Block value (setback factor) No Change	22	1050	3445.1	0.7	21.4%			

Bald Head Island ("East Beach") to Fort Fisher – (2 Tables)

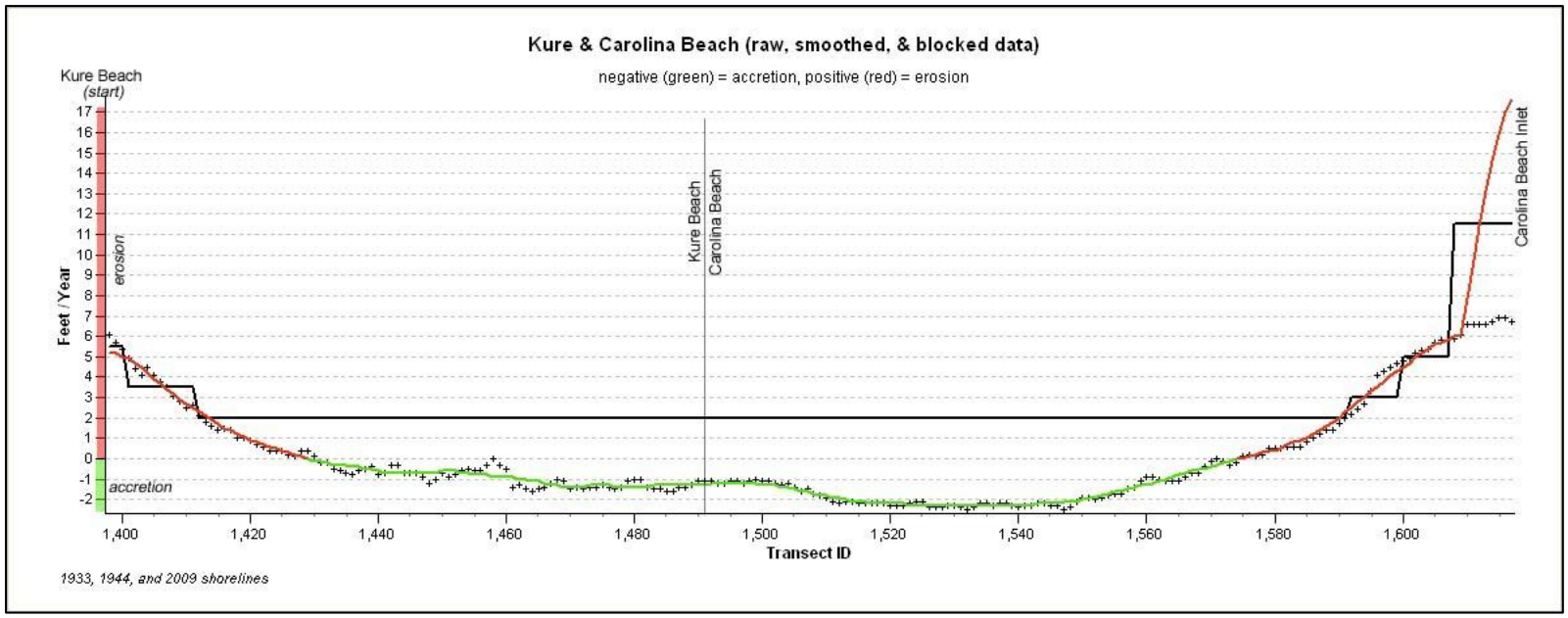


Bald Head Island (east beach)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**27**	**1300**	**4265.3**	**0.8**	**100.0%**	**-2 ft/yr (accretion)**	**1.9 ft/yr (erosion)**	**-6.1 ft/yr (accretion)**
Erosion	8	350	1148.4	0.2	29.6%			
Accretion	19	900	2952.9	0.6	70.4%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	8	350	1148.4	0.2	29.6%			
Eroding 2 to 5 Feet/Year (>2, <=5)	0							
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	8	350	1148.4	0.2	29.6%			
Increased Accretion (1998 - 2009)	0							
No Change	19	900	2952.9	0.6	70.4%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	27	1300	4265.3	0.8	100.0%			

Bald Head Island ("East Beach") to Fort Fisher (continued)

Bald Head - Fort Fisher (including Zeke's Island)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**275**	**13700**	**44949.7**	**8.5**	**100.0%**	**1.8 ft/yr (erosion)**	**9.6 ft/yr (erosion)**	**-8.2 ft/yr (accretion)**
Erosion	164	8150	26740.2	5.1	59.6%			
Accretion	106	5250	17225.3	3.3	38.5%			
Data Gap/Missing Data	*5*	*200*	*656.2*	*0.1*	*1.8%*			
Eroding 2ft/Year or Less (>0, <=2)	11	500	1640.5	0.3	4.0%			
Eroding 2 to 5 Feet/Year (>2, <=5)	41	2000	6562.0	1.2	14.9%			
Eroding 5 to 8 Feet Year (>5, <=8)	58	2850	9350.9	1.8	21.1%			
Eroding More Than 8 Feet/Year	54	2650	8694.7	1.6	19.6%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)								
Increased Accretion (1998 - 2009)	1	0	0.0	0.0	0.4%			
No Change	274	13650	44785.7	8.5	99.6%			
Blocking (Setback Factor) Changes per Transect						**4.3**	**2.0**	**9.0**
Block value (setback factor) increase	40	1950	6398.0	1.2	14.5%			
Block value (setback factor) decrease	118	5850	19193.9	3.6	42.9%			
Block value (setback factor) No Change	116	5750	18865.8	3.6	42.2%			

Kure Beach and Carolina Beach - (2 Tables)

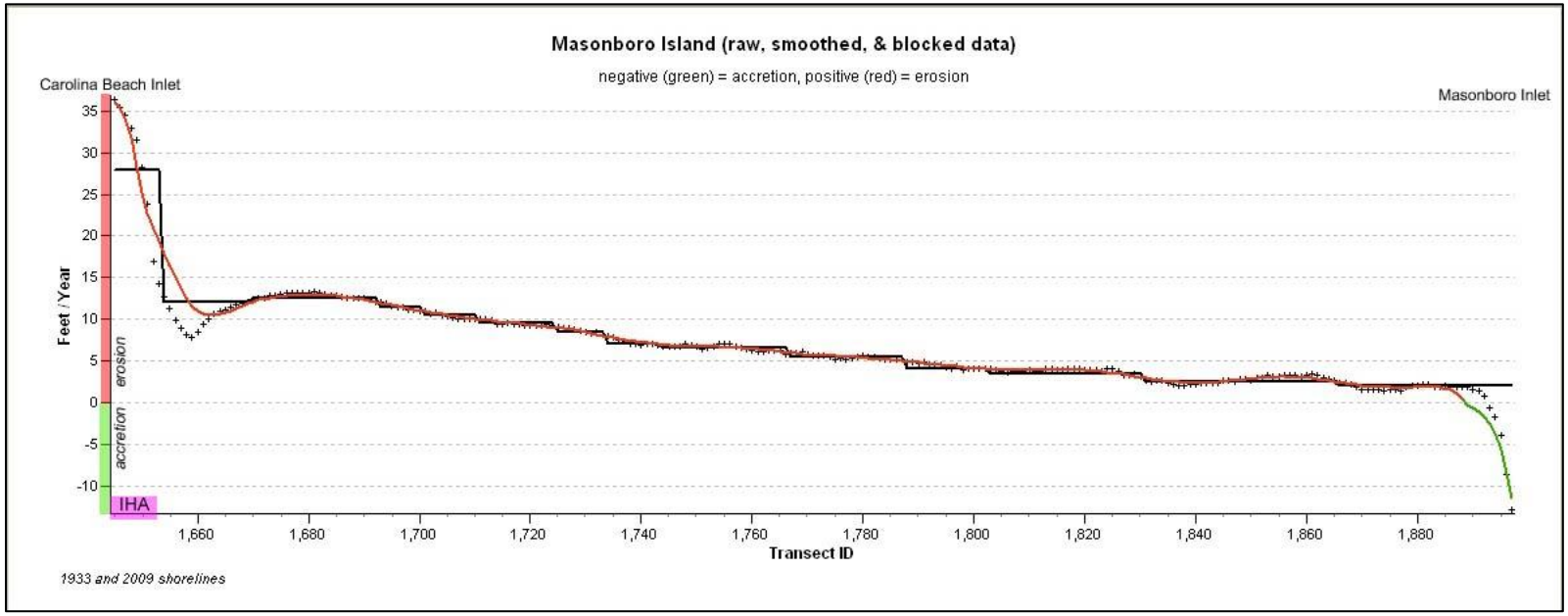


Kure Beach	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**94**	**4650**	**15256.7**	**2.9**	**100.0%**	**0.2 ft/yr (erosion)**	**5.2 ft/yr (erosion)**	**-1.4 ft/yr (accretion)**
Erosion	32	1550	5085.6	1.0	34.0%			
Accretion	62	3050	10007.1	1.9	66.0%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	16	750	2460.8	0.5	17.0%			
Eroding 2 to 5 Feet/Year (>2, <=5)	13	600	1968.6	0.4	13.8%			
Eroding 5 to 8 Feet Year (>5, <=8)	2	50	164.1	0.0	2.1%			
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	19	900	2952.9	0.6	20.2%			
Increased Accretion (1998 - 2009)	0							
No Change	75	3700	12139.7	2.3	79.8%			
Blocking (Setback Factor) Changes per Transect						**2.3**	**2.0**	**5.5**
Block value (setback factor) increase	8	350	1148.4	0.2	8.5%	1.7	1.5	2.0
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	86	4250	13944.3	2.6	91.5%			

Kure Beach and Carolina Beach (continued)

Carolina Beach	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**127**	**6300**	**20670.3**	**3.9**	**100.0%**	**-0.5 ft/yr (accretion)**	**5.7 ft/yr (erosion)**	**-2.3 ft/yr (accretion)**
Erosion	43	2100	6890.1	1.3	33.9%			
Accretion	84	4150	13616.2	2.6	66.1%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	15	700	2296.7	0.4	11.8%			
Eroding 2 to 5 Feet/Year (>2, <=5)	13	600	1968.6	0.4	10.2%			
Eroding 5 to 8 Feet Year (>5, <=8)	4	150	492.2	0.1	3.1%			
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	16	750	2460.8	0.5	12.6%			
Increased Accretion (1998 - 2009)	0							
No Change	111	5500	18045.5	3.4	87.4%			
Blocking (Setback Factor) Changes per Transect						**3.0**	**2.0**	**5.0**
Block value (setback factor) increase	20	950	3117.0	0.6	15.7%	2.6	1.0	5.0
Block value (setback factor) decrease	6	250	820.3	0.2	4.7%	1.3	1.0	1.5
Block value (setback factor) No Change	101	5000	16405.0	3.1	79.5%			

Masonboro Island



Masonboro Island	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**253**	**12600**	**41340.6**	**7.8**	**100.0%**	**6.9 ft/yr (erosion)**	**36.1 ft/yr (erosion)**	**-11.5 ft/yr (accretion)**
Erosion	243	12100	39700.1	7.5	96.0%			
Accretion	9	400	1312.4	0.2	3.6%			
Data Gap/Missing Data	*1*	*0*	*0.0*	*0.0*	*0.4%*			
Eroding 2ft/Year or Less (>0, <=2)	19	900	2952.9	0.6	7.5%			
Eroding 2 to 5 Feet/Year (>2, <=5)	82	4050	13288.1	2.5	32.4%			
Eroding 5 to 8 Feet Year (>5, <=8)	53	2600	8530.6	1.6	20.9%			
Eroding More Than 8 Feet/Year	89	4400	14436.4	2.7	35.2%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	5	200	656.2	0.1	2.0%			
Increased Accretion (1998 - 2009)	0							
No Change	248	12350	40520.4	7.7	98.0%			
Blocking (Setback Factor) Changes per Transect						**7.0**	**2.0**	**28.0**
Block value (setback factor) increase	151	7500	24607.5	4.7	59.7%	2.3	0.5	16.0
Block value (setback factor) decrease	37	1800	5905.8	1.1	14.6%	0.9	0.5	1.5
Block value (setback factor) No Change	65	3200	10499.2	2.0	25.7%			

Wrightsville Beach

Wrightsville Beach	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**145**	**7200**	**23623.2**	**4.5**	**100.0%**	**-3.2 ft/yr (accretion)**	**4.5 ft/yr (erosion)**	**-6.7 ft/yr (accretion)**
Erosion	3	100	328.1	0.1	2.1%			
Accretion	132	6550	21490.6	4.1	91.0%			
Data Gap/Missing Data	*10*	*450*	*1476.5*	*0.3*	*6.9%*			
Eroding 2ft/Year or Less (>0, <=2)	1	0	0.0	0.0	0.7%			
Eroding 2 to 5 Feet/Year (>2, <=5)	2	50	164.1	0.0	1.4%			
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	3	100	328.1	0.1	2.1%			
Increased Accretion (1998 - 2009)	0							
No Change	142	7050	23131.1	4.4	97.9%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	145	7200	23623.2	4.5	100.0%			

Figure Eight Island

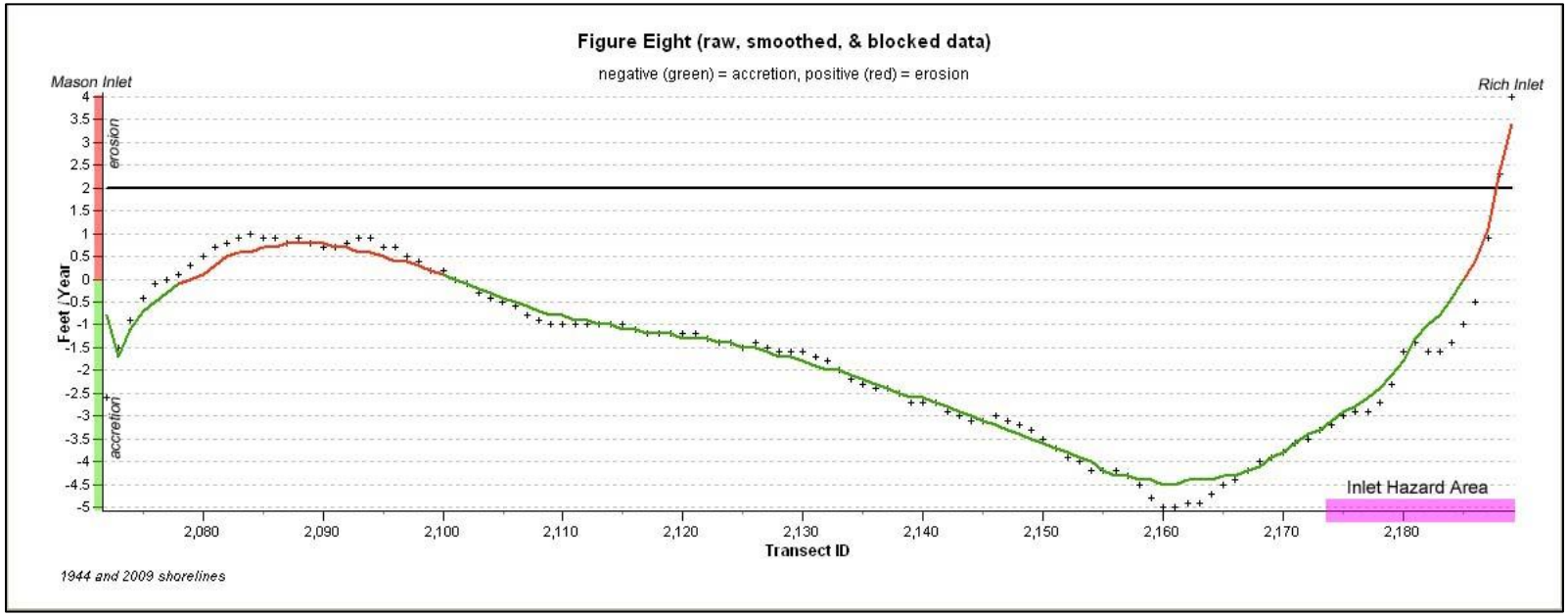
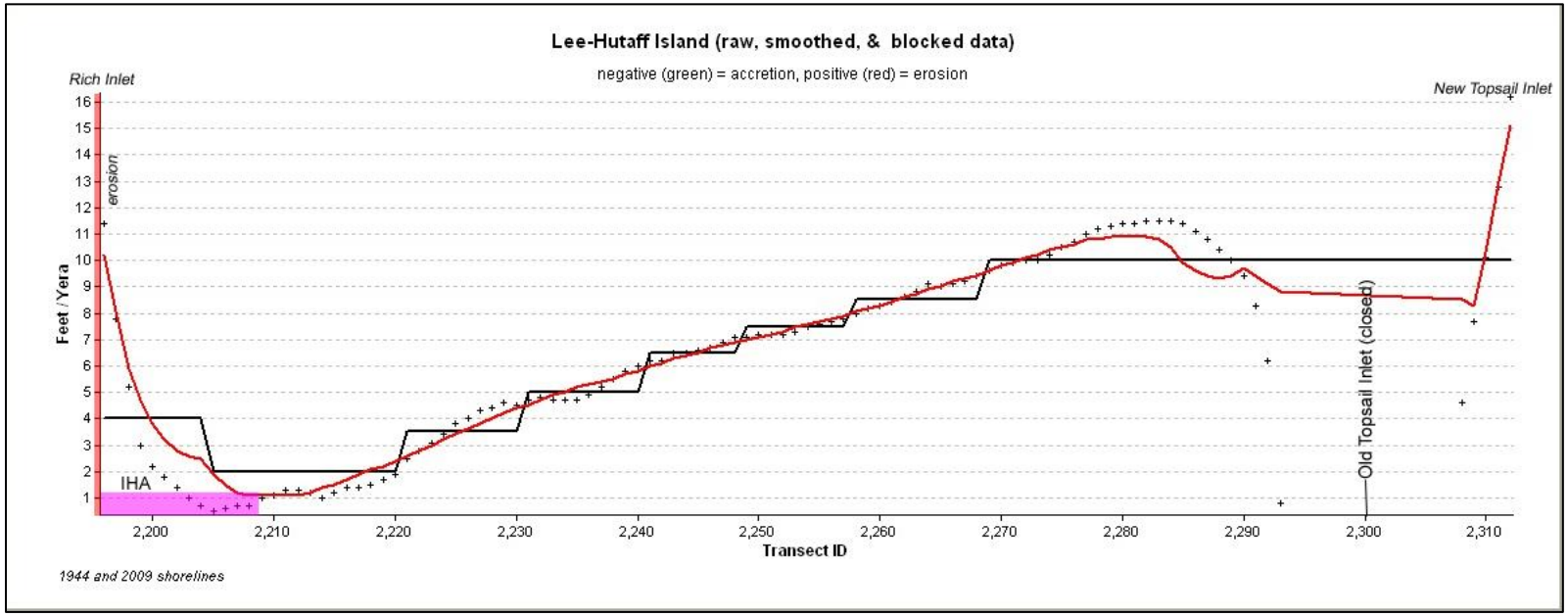


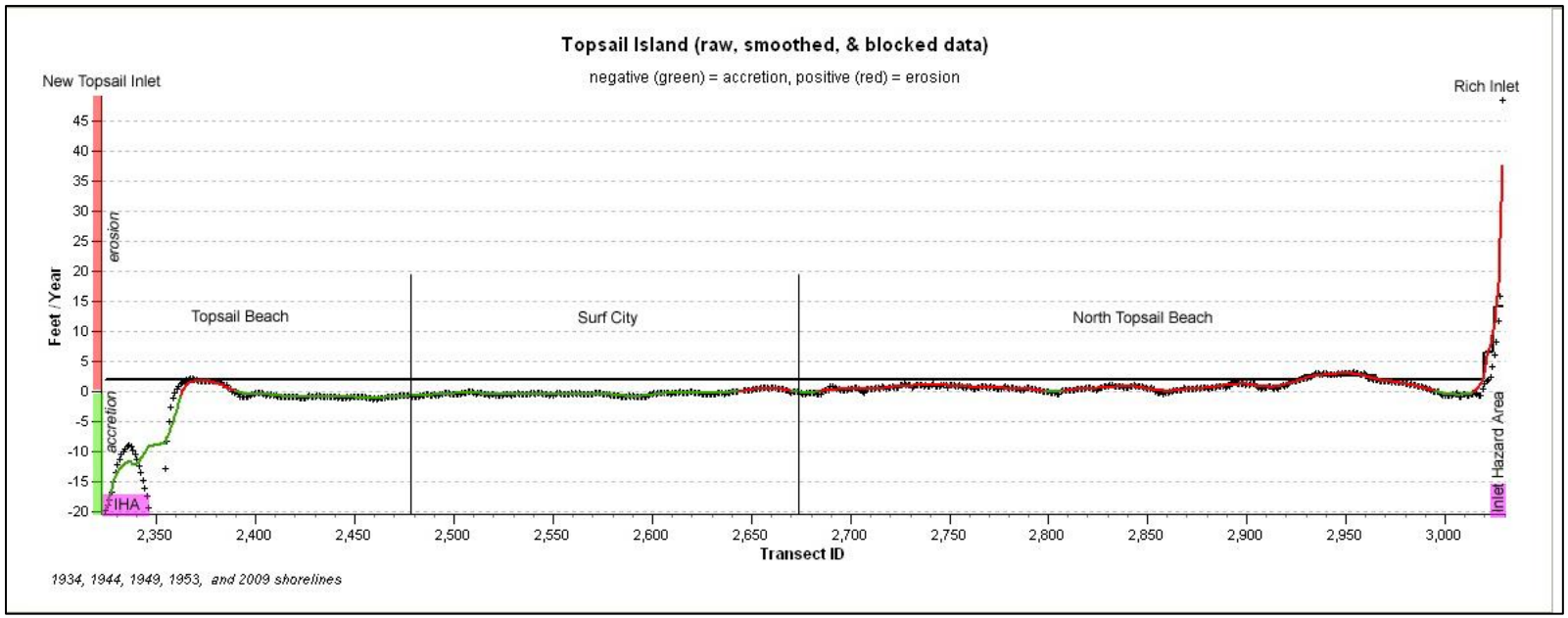
Figure Eight Island	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**118**	**5850**	**19193.9**	**3.6**	**100.0%**	**-1.6 ft/yr (accretion)**	**3.4 ft/yr (erosion)**	**-4.5 ft/yr (accretion)**
Erosion	26	1250	4101.3	0.8	22.0%			
Accretion	92	4550	14928.6	2.8	78.0%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	24	1150	3773.2	0.7	20.3%			
Eroding 2 to 5 Feet/Year (>2, <=5)	2	50	164.1	0.0	1.7%			
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	3	100	328.1	0.1	2.5%			
No Change	115	5700	18701.7	3.5	97.5%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	118	5850	19193.9	3.6	100.0%			

Lee-Hutaff Island



Lee-Hutaff Island	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**117**	**5800**	**19029.8**	**3.6**	**100.0%**	**5.8 ft/yr (erosion)**	**15.1 ft/yr (erosion)**	**No Accretion**
Erosion	103	5100	16733.1	3.2	88.0%			
Accretion	0	-50	-164.1	0.0	0.0%			
Data Gap/Missing Data	*14*	*650*	*2132.7*	*0.4*	*12.0%*			
Eroding 2ft/Year or Less (>0, <=2)	13	600	1968.6	0.4	11.1%			
Eroding 2 to 5 Feet/Year (>2, <=5)	22	1050	3445.1	0.7	18.8%			
Eroding 5 to 8 Feet Year (>5, <=8)	25	1200	3937.2	0.7	21.4%			
Eroding More Than 8 Feet/Year	43	2100	6890.1	1.3	36.8%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	4	150	492.2	0.1	3.4%			
Increased Accretion (1998 - 2009)	0							
No Change	113	5600	18373.6	3.5	96.6%			
Blocking (Setback Factor) Changes per Transect						**5.7**	**2.0**	**10.0**
Block value (setback factor) increase	67	3300	10827.3	2.1	57.3%	3.5	0.5	8.0
Block value (setback factor) decrease	14	650	2132.7	0.4	12.0%	1.1	0.5	1.5
Block value (setback factor) No Change	36	1750	5741.8	1.1	30.8%			

Topsail Island (3 Tables)



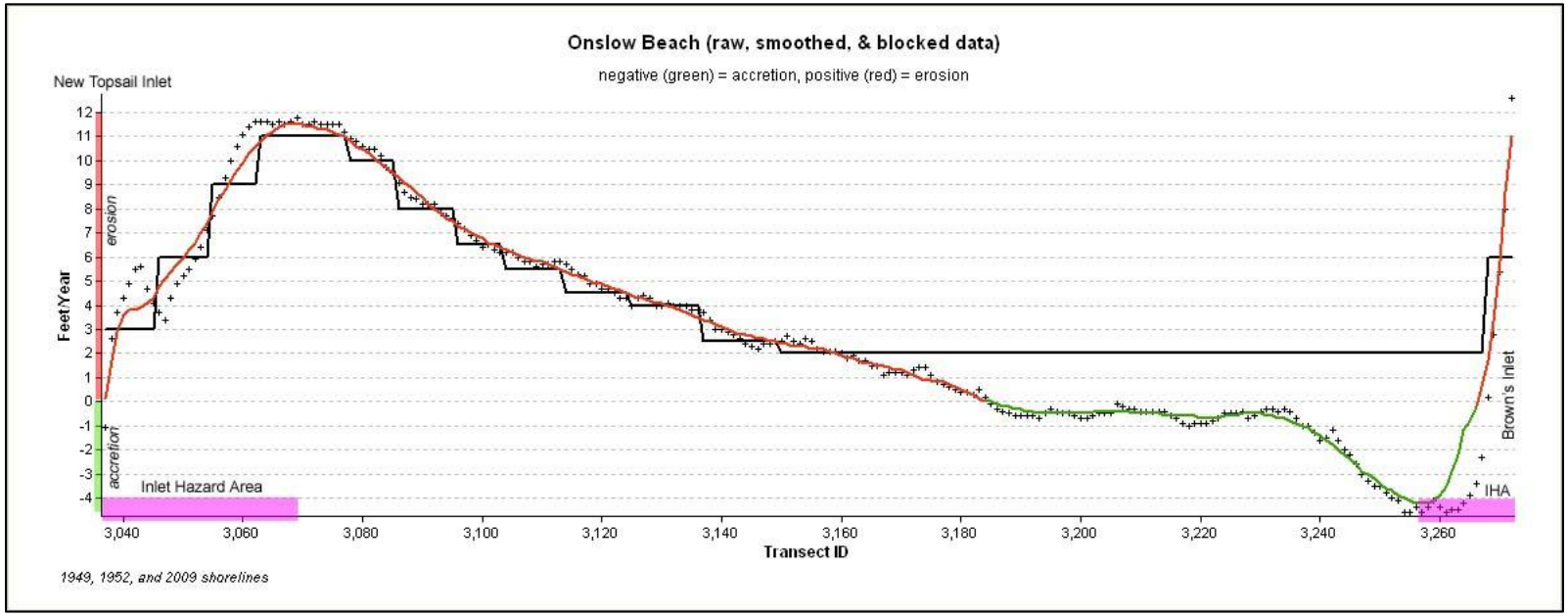
Topsail Beach	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**155**	**7700**	**25263.7**	**4.8**	**100.0%**	**-2.5 ft/yr (accretion)**	**1.8 ft/yr (erosion)**	**-19.5 ft/yr (accretion)**
Erosion	21	1000	3281.0	0.6	13.5%			
Accretion	127	6300	20670.3	3.9	81.9%			
Data Gap/Missing Data	*7*	*300*	*984.3*	*0.2*	*4.5%*			
Eroding 2ft/Year or Less (>0, <=2)	21	1000	3281.0	0.6	13.5%			
Eroding 2 to 5 Feet/Year (>2, <=5)	0							
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	21	1000	3281.0	0.6	13.5%			
Increased Accretion (1998 - 2009)	0							
No Change	127	6300	20670.3	3.9	81.9%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	155	7700	25263.7	4.8	100.0%			

Topsail Island (continued)

Surf City	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**194**	**9650**	**31661.7**	**6.0**	**100.0%**	**-0.3 ft/yr (accretion)**	**0.5 ft/yr (erosion)**	**-0.8 ft/yr (accretion)**
Erosion	25	1200	3937.2	0.7	12.9%			
Accretion	167	8300	27232.3	5.2	86.1%			
Data Gap/Missing Data	*2*	*50*	*164.1*	*0.0*	*1.0%*			
Eroding 2ft/Year or Less (>0, <=2)	25	1200	3937.2	0.7	12.9%			
Eroding 2 to 5 Feet/Year (>2, <=5)	0							
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	2	50	164.1	0.0	1.0%			
Increased Accretion (1998 - 2009)	0							
No Change	192	9550	31333.6	5.9	99.0%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	194	9650	31661.7	6.0	100.0%			

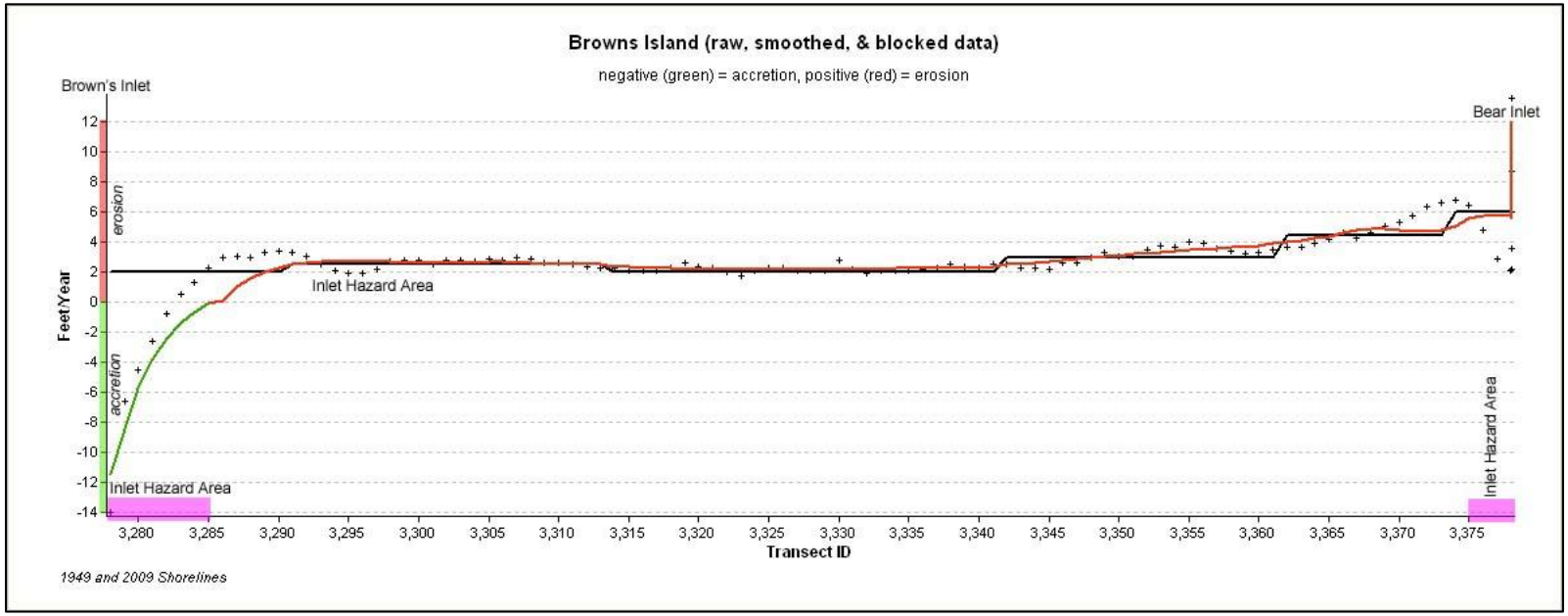
North Topsail Beach	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**359**	**17900**	**58729.9**	**11.1**	**100.0%**	**1.2 ft/yr (erosion)**	**37.6 ft/yr (erosion)**	**-0.6 ft/yr (accretion)**
Erosion	318	15850	52003.9	9.8	88.6%			
Accretion	41	2000	6562.0	1.2	11.4%			
Data Gap/Missing Data								
Eroding 2ft/Year or Less (>0, <=2)	270	13450	44129.5	8.4	75.2%			
Eroding 2 to 5 Feet/Year (>2, <=5)	39	1900	6233.9	1.2	10.9%			
Eroding 5 to 8 Feet Year (>5, <=8)	3	100	328.1	0.1	0.8%			
Eroding More Than 8 Feet/Year	6	250	820.3	0.2	1.7%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	61	3000	9843.0	1.9	17.0%			
Increased Accretion (1998 - 2009)	0							
No Change	298	14850	48722.9	9.2	83.0%			
Blocking (Setback Factor) Changes per Transect						**2.3**	**2.0**	**14.0**
Block value (setback factor) increase	11	500	1640.5	0.3	3.1%	7.7	2.0	12.0
Block value (setback factor) decrease	40	1950	6398.0	1.2	11.1%	0.7	0.5	1.0
Block value (setback factor) No Change	308	15350	50363.4	9.5	85.8%			

Onslow Beach



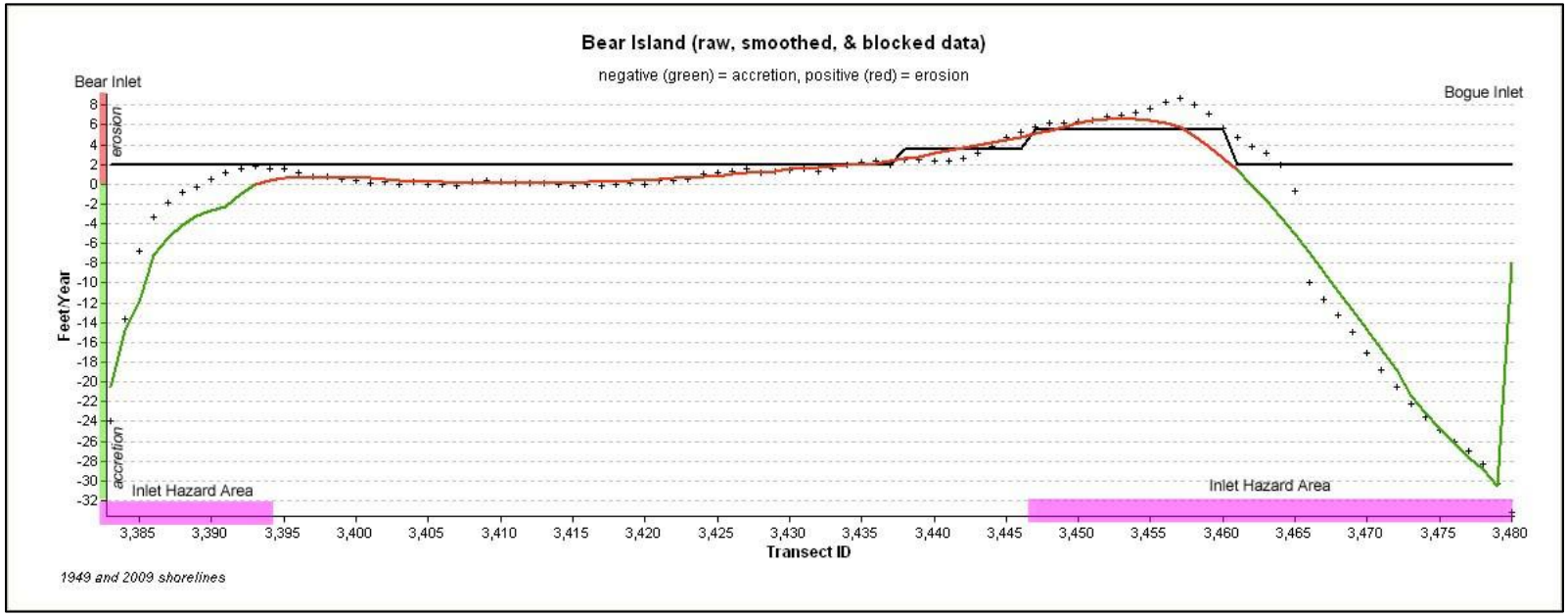
Onslow Beach	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**236**	**11750**	**38551.8**	**7.3**	**100.0%**	**3 ft/yr (erosion)**	**11.5 ft/yr (erosion)**	**-4.2 (accretion)**
Erosion	154	7650	25099.7	4.8	65.3%			
Accretion	82	4050	13288.1	2.5	34.7%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	29	1400	4593.4	0.9	12.3%			
Eroding 2 to 5 Feet/Year (>2, <=5)	50	2450	8038.5	1.5	21.2%			
Eroding 5 to 8 Feet Year (>5, <=8)	36	1750	5741.8	1.1	15.3%			
Eroding More Than 8 Feet/Year	39	1900	6233.9	1.2	16.5%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	48	2350	7710.4	1.5	20.3%			
No Change	188	9350	30677.4	5.8	79.7%			
Blocking (Setback Factor) Changes per Transect						**4.1**	**2.0**	**11.0**
Block value (setback factor) increase	70	3450	11319.5	2.1	29.7%	1.2	0.5	4.0
Block value (setback factor) decrease	37	1800	5905.8	1.1	15.7%	4.6	1.0	9.0
Block value (setback factor) No Change	129	6400	20998.4	4.0	54.7%			

Brown's Island



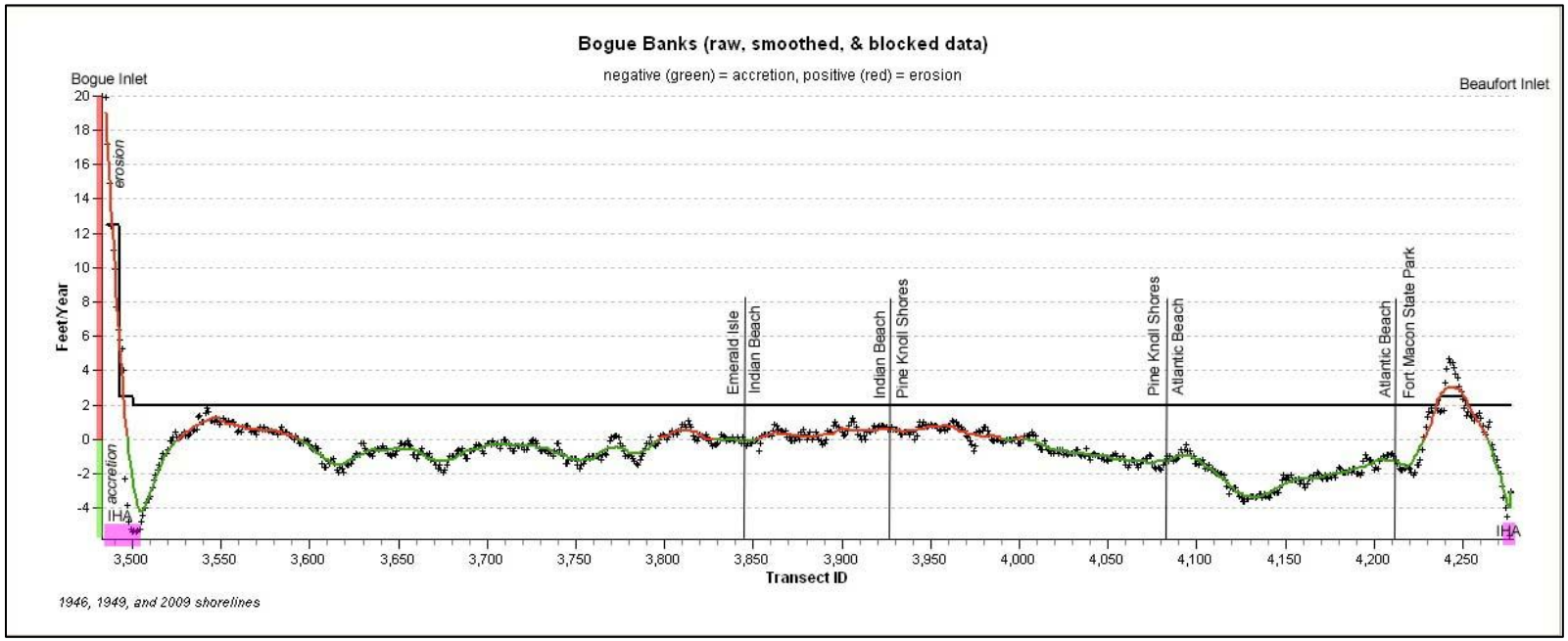
Brown's Island	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**106**	**5250**	**17225.3**	**3.3**	**100.0%**	**2.7 ft/yr (erosion)**	**12 ft/yr (erosion)**	**-11.5 ft/yr (accretion)**
Erosion	98	4850	15912.9	3.0	92.5%			
Accretion	8	350	1148.4	0.2	7.5%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	4	150	492.2	0.1	3.8%			
Eroding 2 to 5 Feet/Year (>2, <=5)	84	4150	13616.2	2.6	79.2%			
Eroding 5 to 8 Feet Year (>5, <=8)	8	350	1148.4	0.2	7.5%			
Eroding More Than 8 Feet/Year	2	50	164.1	0.0	1.9%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	6	250	820.3	0.2	5.7%			
Increased Accretion (1998 - 2009)	0							
No Change	100	4950	16241.0	3.1	94.3%			
Blocking (Setback Factor) Changes per Transect						**3.0**	**2.0**	**6.0**
Block value (setback factor) increase	29	1400	4593.4	0.9	27.4%	1.4	0.5	6.0
Block value (setback factor) decrease	26	1250	4101.3	0.8	24.5%	1.0	0.5	2.5
Block value (setback factor) No Change	51	2500	8202.5	1.6	48.1%			

Bear Island



Bear Island (Hammocks Beach State Park)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**98**	**4850**	**15912.9**	**3.0**	**100.0%**	**-2.2 ft/yr (accretion)**	**6.6 ft/yr (erosion)**	**-30.6 ft/yr (accretion)**
Erosion	68	3350	10991.4	2.1	69.4%			
Accretion	30	1450	4757.5	0.9	30.6%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	43	2100	6890.1	1.3	43.9%			
Eroding 2 to 5 Feet/Year (>2, <=5)	14	650	2132.7	0.4	14.3%			
Eroding 5 to 8 Feet Year (>5, <=8)	11	500	1640.5	0.3	11.2%			
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	28	1350	4429.4	0.8	28.6%			
Increased Accretion (1998 - 2009)	0							
No Change	70	3450	11319.5	2.1	71.4%			
Blocking (Setback Factor) Changes per Transect						**2.6**	**2.0**	**5.5**
Block value (setback factor) increase	7	300	984.3	0.2	7.1%	1.5	1.5	1.5
Block value (setback factor) decrease	36	1750	5741.8	1.1	36.7%	1.5	0.5	3.0
Block value (setback factor) No Change	55	2700	8858.7	1.7	56.1%			

Bogue Banks (5 Tables)



Emerald Isle	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**362**	**18050**	**59222.1**	**11.2**	**100.0%**	**-0.1 ft/yr (accretion)**	**19 ft/yr (erosion)**	**-4.2 ft/yr (accretion)**
Erosion	113	5600	18373.6	3.5	31.2%			
Accretion	249	12400	40684.4	7.7	68.8%			
Data Gap/Missing Data	0							
Eroding 2ft/Year or Less (>0, <=2)	102	5050	16569.1	3.1	28.2%			
Eroding 2 to 5 Feet/Year (>2, <=5)	2	50	164.1	0.0	0.6%			
Eroding 5 to 8 Feet Year (>5, <=8)	2	50	164.1	0.0	0.6%			
Eroding More Than 8 Feet/Year	7	300	984.3	0.2	1.9%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	63	3100	10171.1	1.9	17.4%			
No Change	299	14900	48886.9	9.3	82.6%			
Blocking (Setback Factor) Changes per Transect						**2.2**	**2.0**	**12.5**
Block value (setback factor) increase	16	750	2460.8	0.5	4.4%	5.5	0.5	10.5
Block value (setback factor) decrease	21	1000	3281.0	0.6	5.8%	0.5	0.5	0.5
Block value (setback factor) No Change	325	16200	53152.2	10.1	89.8%			

Bogue Banks (continued)

Indian Beach	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**56**	**2750**	**9022.8**	**1.7**	**100.0%**	**0.3 ft/yr (erosion)**	**0.6 ft/yr (erosion)**	**-0.1 ft/yr (accretion)**
Erosion	50	2450	8038.5	1.5	89.3%			
Accretion	6	250	820.3	0.2	10.7%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	50	2450	8038.5	1.5	89.3%			
Eroding 2 to 5 Feet/Year (>2, <=5)	0							
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	6	250	820.3	0.2	10.7%			
No Change	50	2450	8038.5	1.5	89.3%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	56	2750	9022.8	1.7	100.0%			

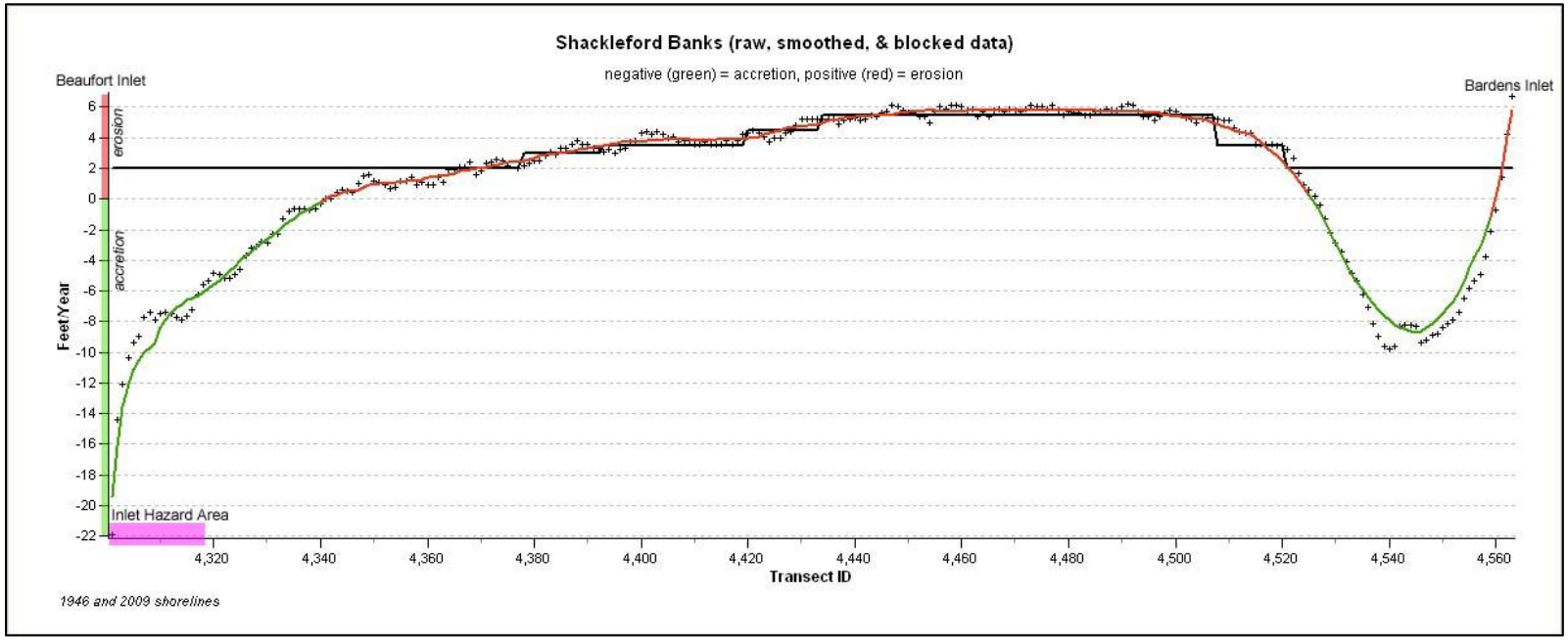
Salter Path	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**26**	**1250**	**4101.3**	**0.8**	**100.0%**	**0.4 ft/yr (erosion)**	**0.7 ft/yr (erosion)**	**No Accretion**
Erosion	26	1250	4101.3	0.8	100.0%			
Accretion	0	-50	-164.1	0.0	0.0%			
Data Gap/Missing Data	0							
Eroding 2ft/Year or Less (>0, <=2)	26	1250	4101.3	0.8	100.0%			
Eroding 2 to 5 Feet/Year (>2, <=5)	0							
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	0							
No Change	26	1250	4101.3	0.8	100.0%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	26	1250	4101.3	0.8	100.0%			

Bogue Banks (continued)

Pine Knoll Shores	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**155**	**7700**	**25263.7**	**4.8**	**100.0%**	**-0.3 ft/yr (accretion)**	**0.8 ft/yr (erosion)**	**-1.4 ft/yr (accretion)**
Erosion	68	3350	10991.4	2.1	43.9%			
Accretion	87	4300	14108.3	2.7	56.1%			
Data Gap/Missing Data	0							
Eroding 2ft/Year or Less (>0, <=2)	68	3350	10991.4	2.1	43.9%			
Eroding 2 to 5 Feet/Year (>2, <=5)	0							
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	75	3700	12139.7	2.3	48.4%			
No Change	80	3950	12960.0	2.5	51.6%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	155	7700	25263.7	4.8	100.0%			

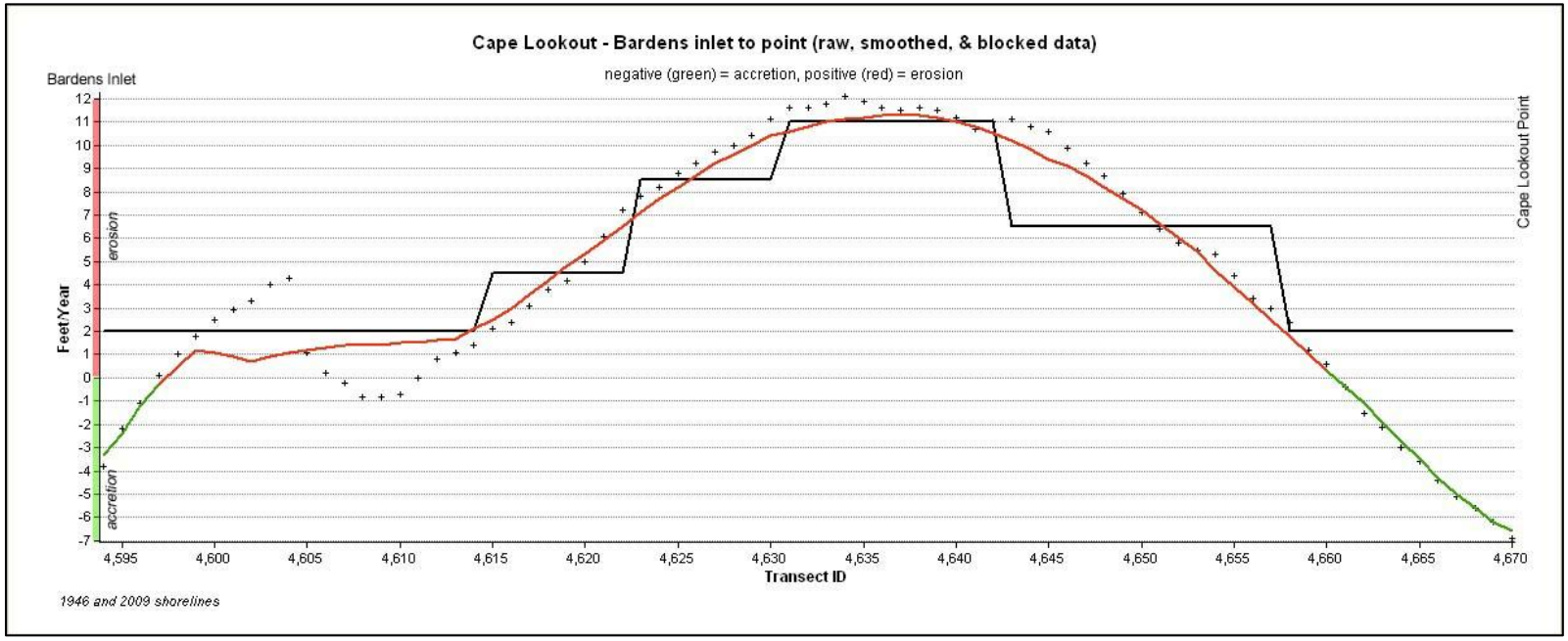
Atlantic Beach (including Fort Macon State Park)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**196**	**9750**	**31989.8**	**6.1**	**100.0%**	**-1.3 ft/yr (accretion)**	**3 ft/yr (erosion)**	**-4 ft/yr (accretion)**
Erosion	36	1750	5741.8	1.1	18.4%			
Accretion	160	7950	26084.0	4.9	81.6%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	18	850	2788.9	0.5	9.2%			
Eroding 2 to 5 Feet/Year (>2, <=5)	18	850	2788.9	0.5	9.2%			
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	6	250	820.3	0.2	3.1%			
No Change	190	9450	31005.5	5.9	96.9%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.5**
Block value (setback factor) increase	2	50	164.1	0.0	1.0%	1.3	0.5	2.0
Block value (setback factor) decrease	2	50	164.1	0.0	1.0%	0.5	0.5	0.5
Block value (setback factor) No Change	192	9550	31333.6	5.9	98.0%			

Shackleford Banks



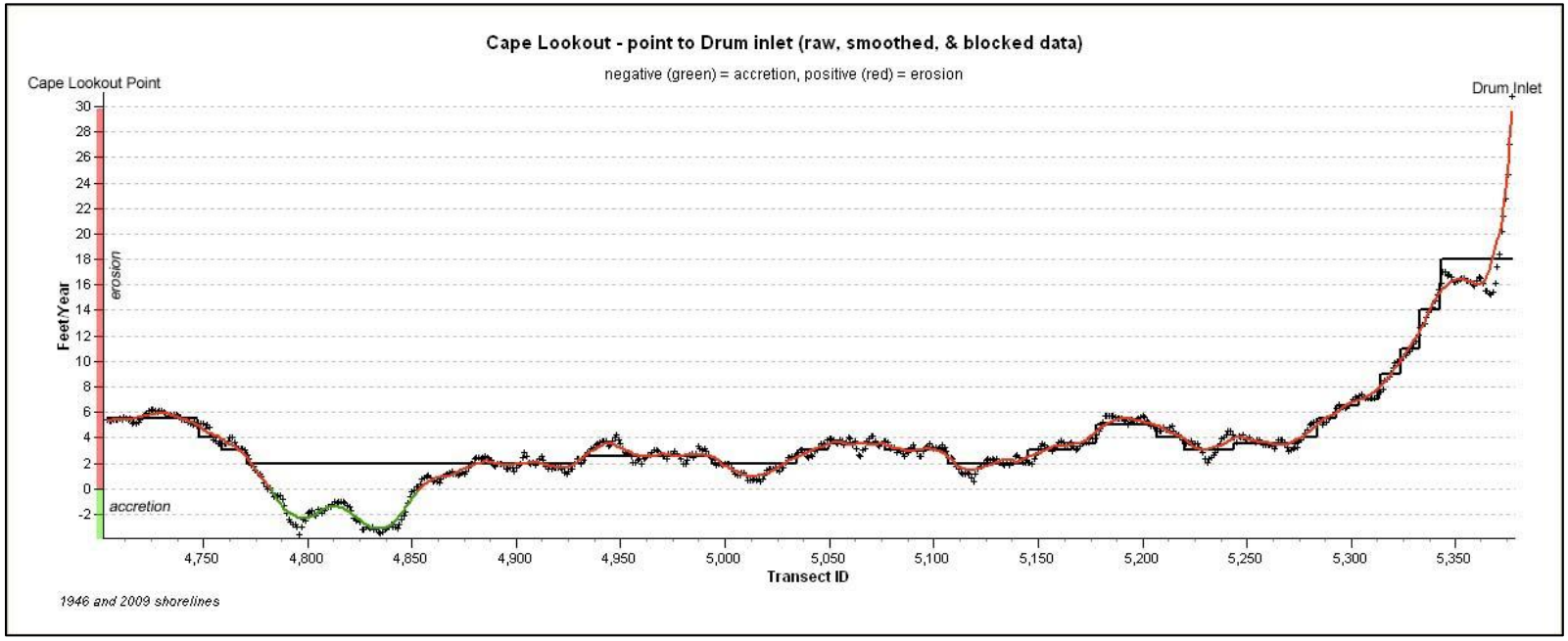
Shackleford Banks	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**262**	**13050**	**42817.1**	**8.1**	**100.0%**	**1.2 ft/yr (erosion)**	**5.8 ft/yr (erosion)**	**-19.4 ft/yr (accretion)**
Erosion	188	9350	30677.4	5.8	71.8%			
Accretion	74	3650	11975.7	2.3	28.2%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	35	1700	5577.7	1.1	13.4%			
Eroding 2 to 5 Feet/Year (>2, <=5)	80	3950	12960.0	2.5	30.5%			
Eroding 5 to 8 Feet Year (>5, <=8)	73	3600	11811.6	2.2	27.9%			
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	4	150	492.2	0.1	1.5%			
Increased Accretion (1998 - 2009)	0							
No Change	258	12850	42160.9	8.0	98.5%			
Blocking (Setback Factor) Changes per Transect						**3.4**	**2.0**	**5.5**
Block value (setback factor) increase	64	3150	10335.2	2.0	24.4%	0.6	0.5	1.5
Block value (setback factor) decrease	67	3300	10827.3	2.1	25.6%	0.6	0.5	1.5
Block value (setback factor) No Change	131	6500	21326.5	4.0	50.0%			

Cape Lookout – Bardens Inlet to tip of cape



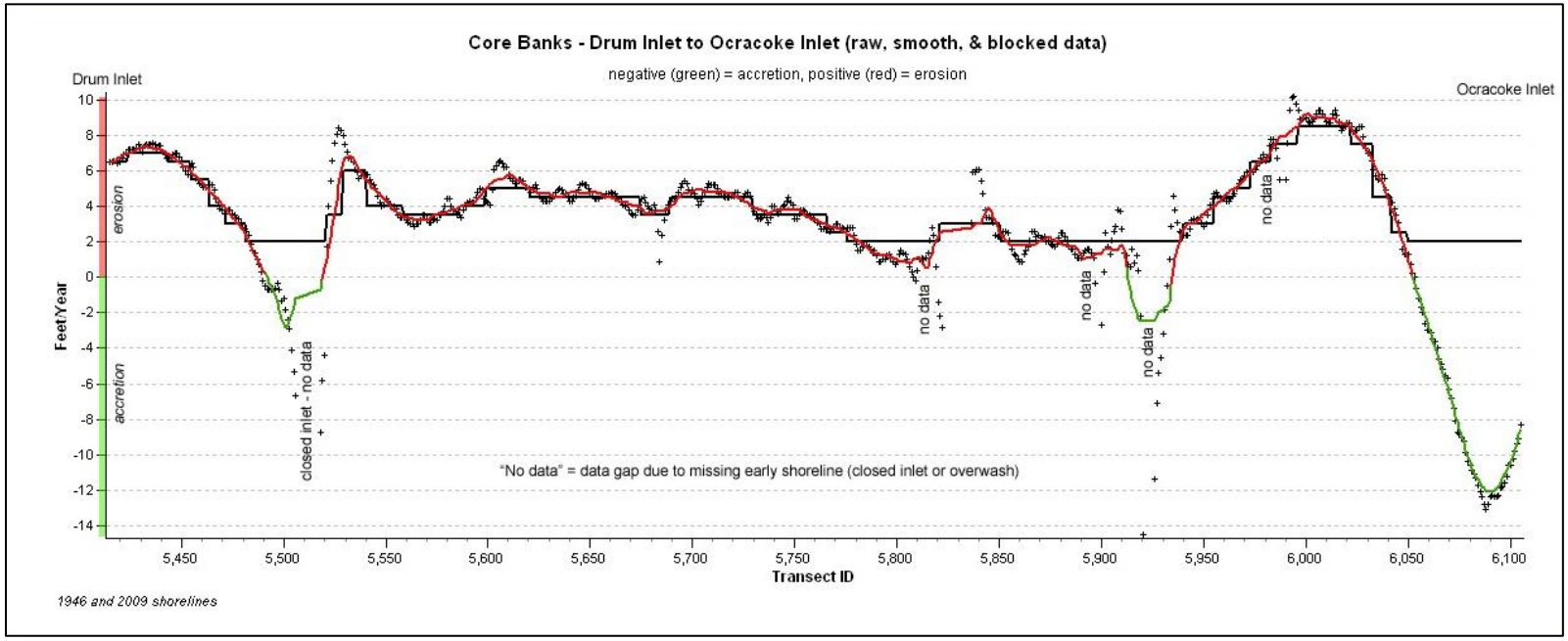
Cape Lookout (Bardens Inlet to point at cape)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**77**	**3800**	**12467.8**	**2.4**	**100.0%**	**4.2 ft/yr (erosion)**	**11.3 ft/yr (erosion)**	**-6.6 ft/yr (accretion)**
Erosion	14	650	2132.7	0.4	18.2%			
Accretion	63	3100	10171.1	1.9	81.8%			
Data Gap/Missing Data	0							
Eroding 2ft/Year or Less (>0, <=2)	19	900	2952.9	0.6	24.7%			
Eroding 2 to 5 Feet/Year (>2, <=5)	10	450	1476.5	0.3	13.0%			
Eroding 5 to 8 Feet Year (>5, <=8)	10	450	1476.5	0.3	13.0%			
Eroding More Than 8 Feet/Year	24	1150	3773.2	0.7	31.2%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	44	2150	7054.2	1.3	57.1%			
No Change	33	1600	5249.6	1.0	42.9%			
Blocking (Setback Factor) Changes per Transect						**5.2**	**2.0**	**11.0**
Block value (setback factor) increase	5	200	656.2	0.1	6.5%	0.5	0.5	0.5
Block value (setback factor) decrease	44	2150	7054.2	1.3	57.1%	3.7	0.5	8.0
Block value (setback factor) No Change	28	1350	4429.4	0.8	36.4%			

Cape Lookout (at point) to Drum Inlet



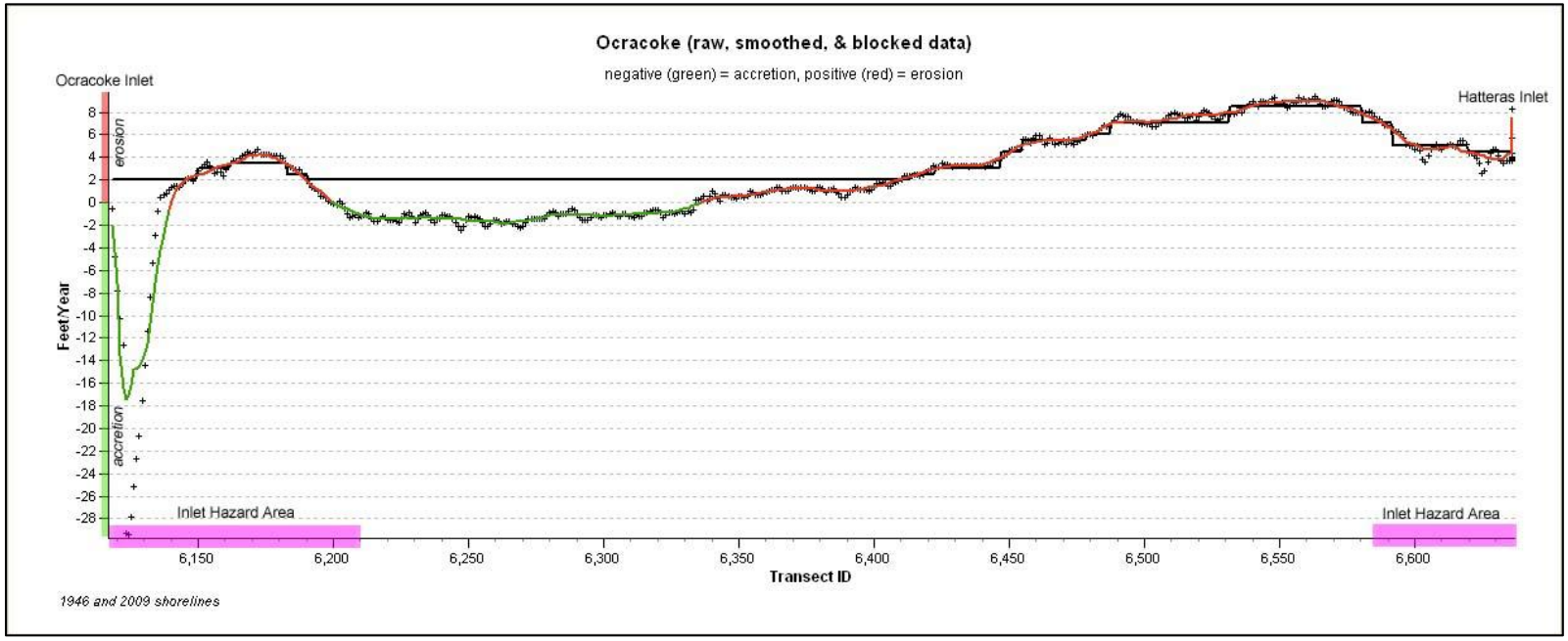
Cape Lookout (Cape to Drum inlet)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**674**	**33650**	**110405.7**	**20.9**	**100.0%**	**3.9 ft/yr (erosion)**	**29.6 ft/yr (erosion)**	**-3.1 ft/yr (accretion)**
Erosion	603	30100	98758.1	18.7	89.5%			
Accretion	71	3500	11483.5	2.2	10.5%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	111	5500	18045.5	3.4	16.5%			
Eroding 2 to 5 Feet/Year (>2, <=5)	332	16550	54300.6	10.3	49.3%			
Eroding 5 to 8 Feet Year (>5, <=8)	96	4750	15584.8	3.0	14.2%			
Eroding More Than 8 Feet/Year	64	3150	10335.2	2.0	9.5%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	2	50	164.1	0.0	0.3%			
No Change	672	33550	110077.6	20.8	99.7%			
Blocking (Setback Factor) Changes per Transect						**4.2**	**2.0**	**18.0**
Block value (setback factor) increase	196	9750	31989.8	6.1	29.1%	1.0	0.5	4.0
Block value (setback factor) decrease	179	8900	29200.9	5.5	26.6%	0.8	0.5	1.0
Block value (setback factor) No Change	299	14900	48886.9	9.3	44.4%			

Core Banks (Drum Inlet to Ocracoke Inlet)



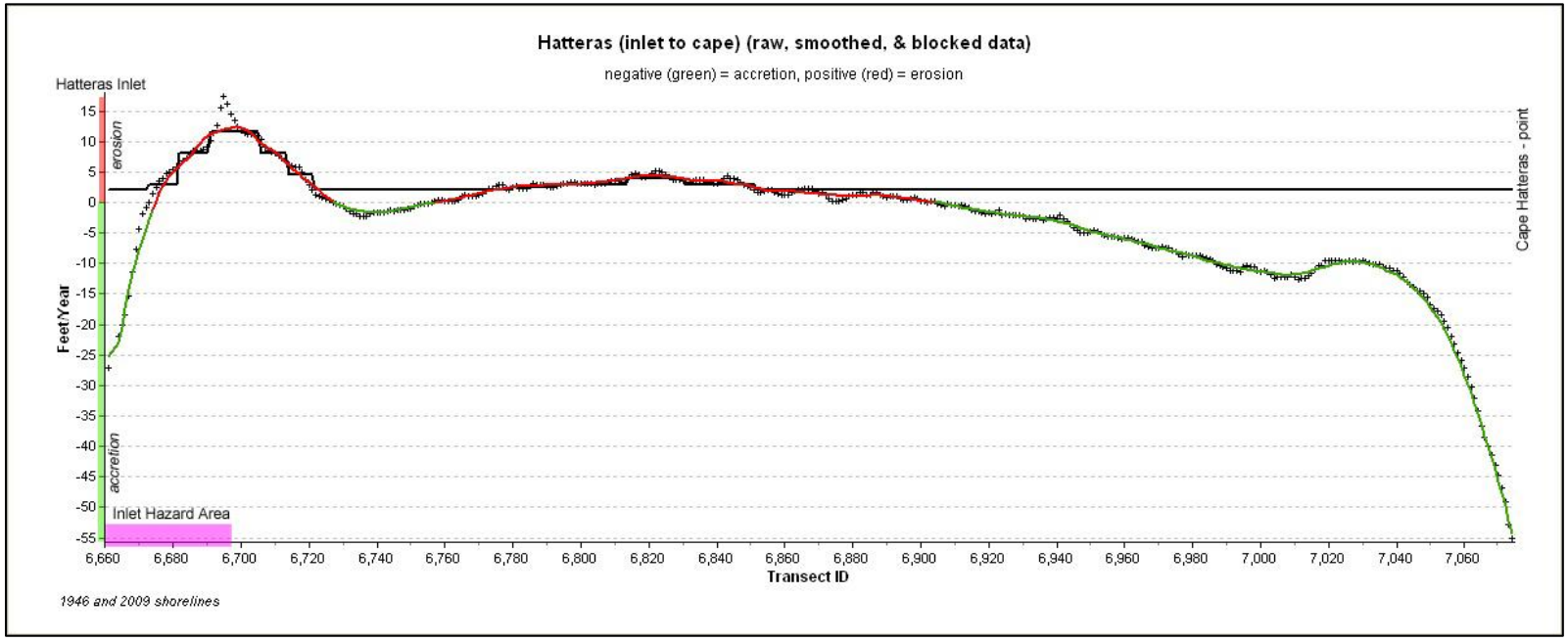
Core Banks (Drum inlet to Ocracoke inlet)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**693**	**34600**	**113522.6**	**21.5**	**100.0%**	**2.8 ft/yr (erosion)**	**9.2 ft/yr (erosion)**	**-12.1 ft/yr (accretion)**
Erosion	603	30100	98758.1	18.7	87.0%			
Accretion	90	4450	14600.5	2.8	13.0%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	105	5200	17061.2	3.2	15.2%			
Eroding 2 to 5 Feet/Year (>2, <=5)	306	15250	50035.3	9.5	44.2%			
Eroding 5 to 8 Feet Year (>5, <=8)	128	6350	20834.4	3.9	18.5%			
Eroding More Than 8 Feet/Year	34	1650	5413.7	1.0	4.9%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	12	550	1804.6	0.3	1.7%			
Increased Accretion (1998 - 2009)	0							
No Change	681	34000	111554.0	21.1	98.3%			
Blocking (Setback Factor) Changes per Transect						**3.7**	**2.0**	**8.5**
Block value (setback factor) increase	91	4500	14764.5	2.8	13.1%	0.9	0.5	6.5
Block value (setback factor) decrease	358	17850	58565.9	11.1	51.7%	1.7	0.5	7.0
Block value (setback factor) No Change	244	12150	39864.2	7.6	35.2%			

Ocracoke



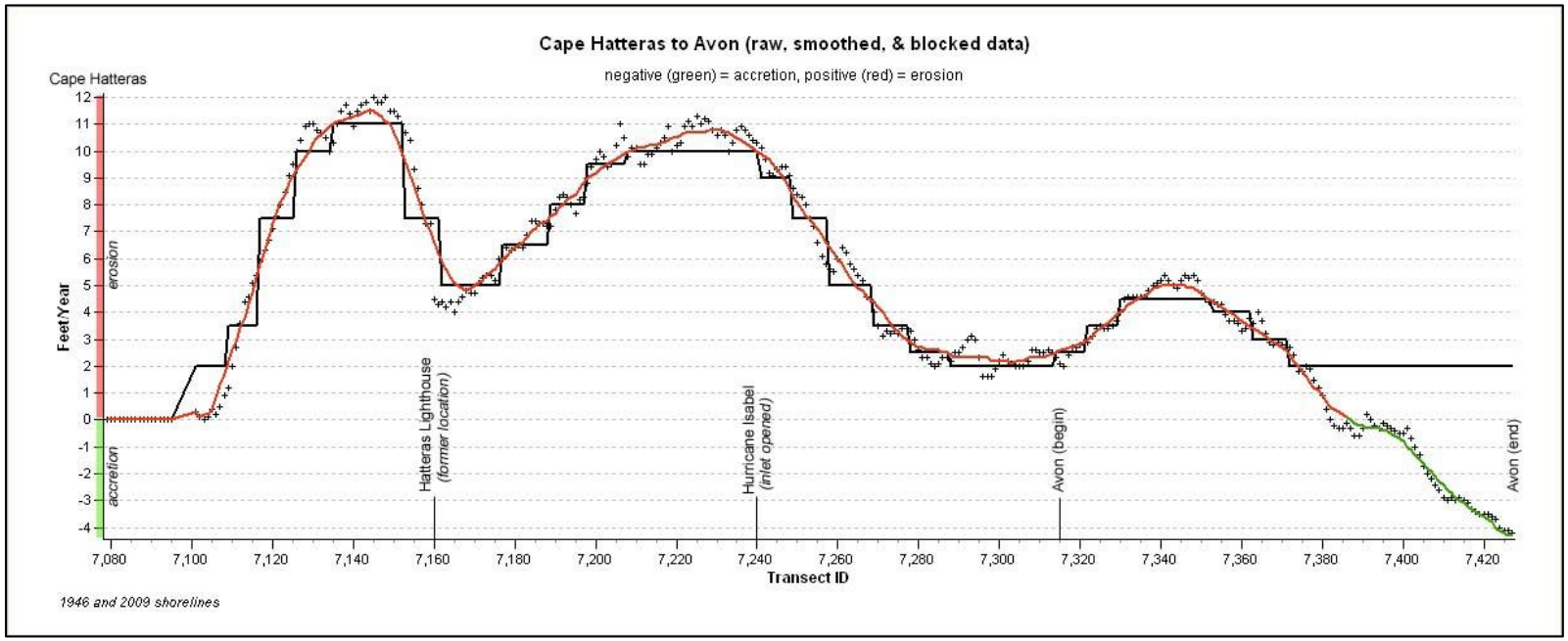
Ocracoke	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**525**	**26200**	**85962.2**	**16.3**	**100.0%**	**2.4 ft/yr (erosion)**	**9 ft/yr (erosion)**	**-17.4 ft/yr (accretion)**
Erosion	366	18250	59878.3	11.3	69.7%			
Accretion	159	7900	25919.9	4.9	30.3%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	88	4350	14272.4	2.7	16.8%			
Eroding 2 to 5 Feet/Year (>2, <=5)	129	6400	20998.4	4.0	24.6%			
Eroding 5 to 8 Feet Year (>5, <=8)	102	5050	16569.1	3.1	19.4%			
Eroding More Than 8 Feet/Year	47	2300	7546.3	1.4	9.0%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	22	1050	3445.1	0.7	4.2%			
Increased Accretion (1998 - 2009)	0							
No Change	503	25100	82353.1	15.6	95.8%			
Blocking (Setback Factor) Changes per Transect						**3.8**	**2.0**	**8.5**
Block value (setback factor) increase	115	5700	18701.7	3.5	21.9%	0.9	0.5	4.5
Block value (setback factor) decrease	136	6750	22146.8	4.2	25.9%	5.3	0.5	21.0
Block value (setback factor) No Change	274	13650	44785.7	8.5	52.2%			

Hatteras Inlet to Cape Hatteras



Hatteras (Hatteras inlet to cape)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**415**	**20700**	**67916.7**	**12.9**	**100.0%**	**-3.3 ft/yr (accretion)**	**12.4 ft/yr (erosion)**	**-54.3 ft/yr (accretion)**
Erosion	200	9950	32646.0	6.2	48.2%			
Accretion	212	10550	34614.6	6.6	51.1%			
Data Gap/Missing Data	*3*	*100*	*328.1*	*0.1*	*0.7%*			
Eroding 2ft/Year or Less (>0, <=2)	74	3650	11975.7	2.3	17.8%			
Eroding 2 to 5 Feet/Year (>2, <=5)	90	4450	14600.5	2.8	21.7%			
Eroding 5 to 8 Feet Year (>5, <=8)	11	500	1640.5	0.3	2.7%			
Eroding More Than 8 Feet/Year	25	1200	3937.2	0.7	6.0%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	17	800	2624.8	0.5	4.1%			
Increased Accretion (1998 - 2009)	0							
No Change	395	19700	64635.7	12.2	95.2%			
Blocking (Setback Factor) Changes per Transect						**2.9**	**2.0**	**11.5**
Block value (setback factor) increase	25	1200	3937.2	0.7	6.0%	1.2	0.5	3.5
Block value (setback factor) decrease	61	3000	9843.0	1.9	14.7%	4.9	0.5	11.5
Block value (setback factor) No Change	329	16400	53808.4	10.2	79.3%			

Cape Hatteras to Avon (2 Tables)

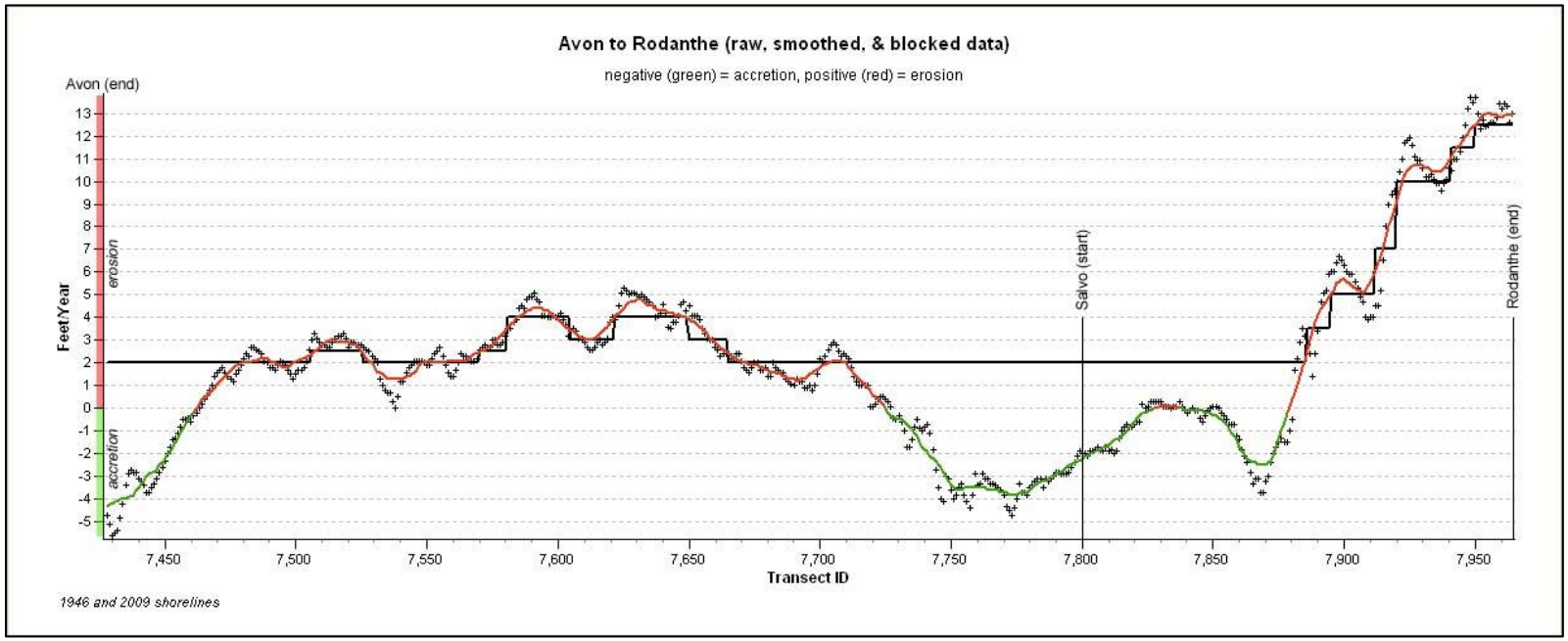


Cape Hatteras (Cape to Avon)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**230**	**11450**	**37567.5**	**7.1**	**100.0%**	**6.3 ft/yr (erosion)**	**11.5 ft/yr (erosion)**	**No Accretion**
Erosion	213	10600	34778.6	6.6	92.6%			
Accretion	0	-50	-164.1	0.0	0.0%			
Data Gap/Missing Data	*17*	*800*	*2624.8*	*0.5*	*7.4%*			
Eroding 2ft/Year or Less (>0, <=2)	8	350	1148.4	0.2	3.5%			
Eroding 2 to 5 Feet/Year (>2, <=5)	60	2950	9679.0	1.8	26.1%			
Eroding 5 to 8 Feet Year (>5, <=8)	51	2500	8202.5	1.6	22.2%			
Eroding More Than 8 Feet/Year	94	4650	15256.7	2.9	40.9%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	7	300	984.3	0.2	3.0%			
Increased Accretion (1998 - 2009)	0							
No Change	223	11100	36419.1	6.9	97.0%			
Blocking (Setback Factor) Changes per Transect						**6.2**	**2.0**	**11.0**
Block value (setback factor) increase	25	1200	3937.2	0.7	10.9%	0.9	0.5	1.5
Block value (setback factor) decrease	115	5700	18701.7	3.5	50.0%	2.0	0.5	6.5
Block value (setback factor) No Change	90	4450	14600.5	2.8	39.1%			

Cape Hatteras to Avon (continued)

Outer Banks (Avon)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**114**	**5650**	**18537.7**	**3.5**	**100.0%**	**1.4 ft/yr (erosion)**	**5 ft/yr (erosion)**	**-4.3 ft/yr (accretion)**
Erosion	73	3600	11811.6	2.2	64.0%			
Accretion	41	2000	6562.0	1.2	36.0%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	13	600	1968.6	0.4	11.4%			
Eroding 2 to 5 Feet/Year (>2, <=5)	60	2950	9679.0	1.8	52.6%			
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	23	1100	3609.1	0.7	20.2%			
Increased Accretion (1998 - 2009)	0							
No Change	91	4500	14764.5	2.8	79.8%			
Blocking (Setback Factor) Changes per Transect						**2.9**	**2.0**	**4.5**
Block value (setback factor) increase	26	1250	4101.3	0.8	22.8%	1.2	0.5	2.0
Block value (setback factor) decrease	1	0	0.0	0.0	0.9%			
Block value (setback factor) No Change	87	4300	14108.3	2.7	76.3%			

Outer Banks - Avon to Rodanthe (2 Tables)

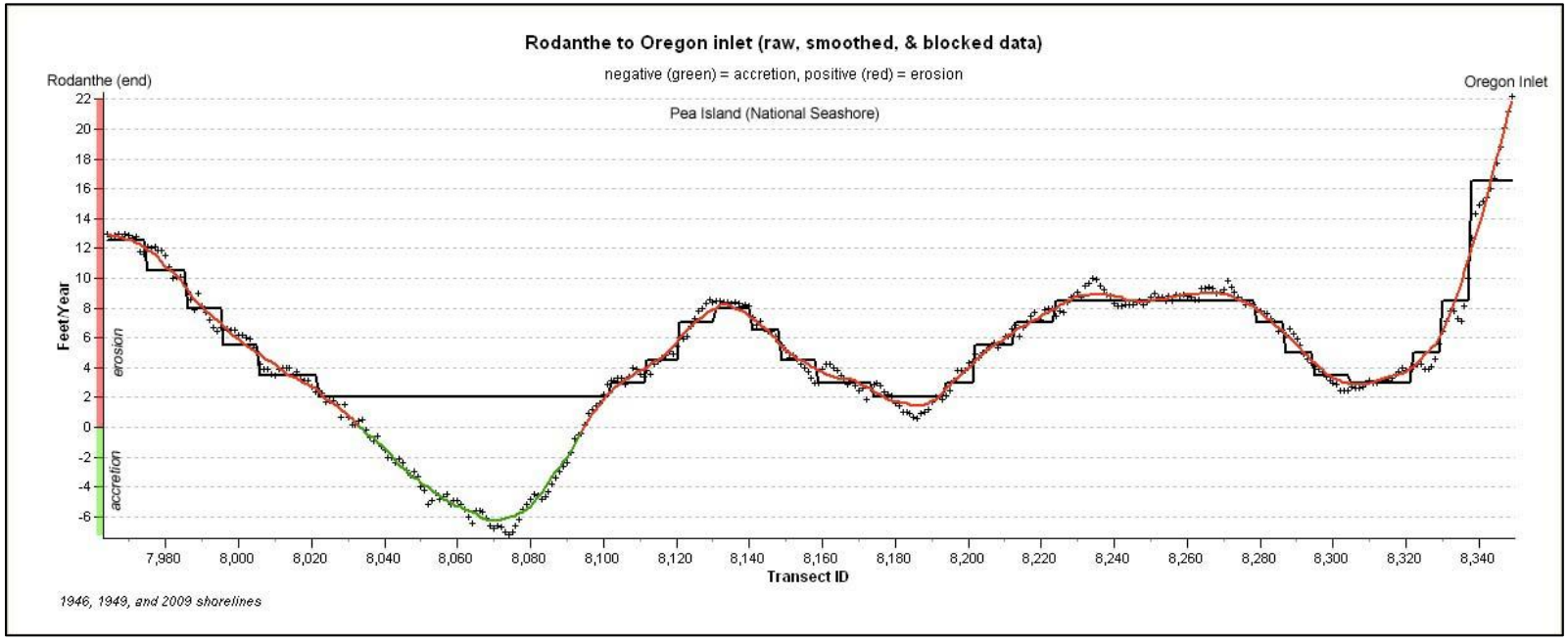


Outer Banks (Avon to Salvo)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**372**	**18550**	**60862.6**	**11.5**	**100.0%**	**1 ft/yr (erosion)**	**4.8 ft/yr (erosion)**	**-4.3 ft/yr (accretion)**
Erosion	263	13100	42981.1	8.1	70.7%			
Accretion	109	5400	17717.4	3.4	29.3%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	91	4500	14764.5	2.8	24.5%			
Eroding 2 to 5 Feet/Year (>2, <=5)	172	8550	28052.6	5.3	46.2%			
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	38	1850	6069.9	1.1	10.2%			
Increased Accretion (1998 - 2009)	0							
No Change	334	16650	54628.7	10.3	89.8%			
Blocking (Setback Factor) Changes per Transect						**2.4**	**2.0**	**4.0**
Block value (setback factor) increase	37	1800	5905.8	1.1	9.9%	0.5	0.5	0.5
Block value (setback factor) decrease	55	2700	8858.7	1.7	14.8%	0.9	0.5	1.5
Block value (setback factor) No Change	280	13950	45770.0	8.7	75.3%			

Outer Banks – Avon to Rodanthe (continued)

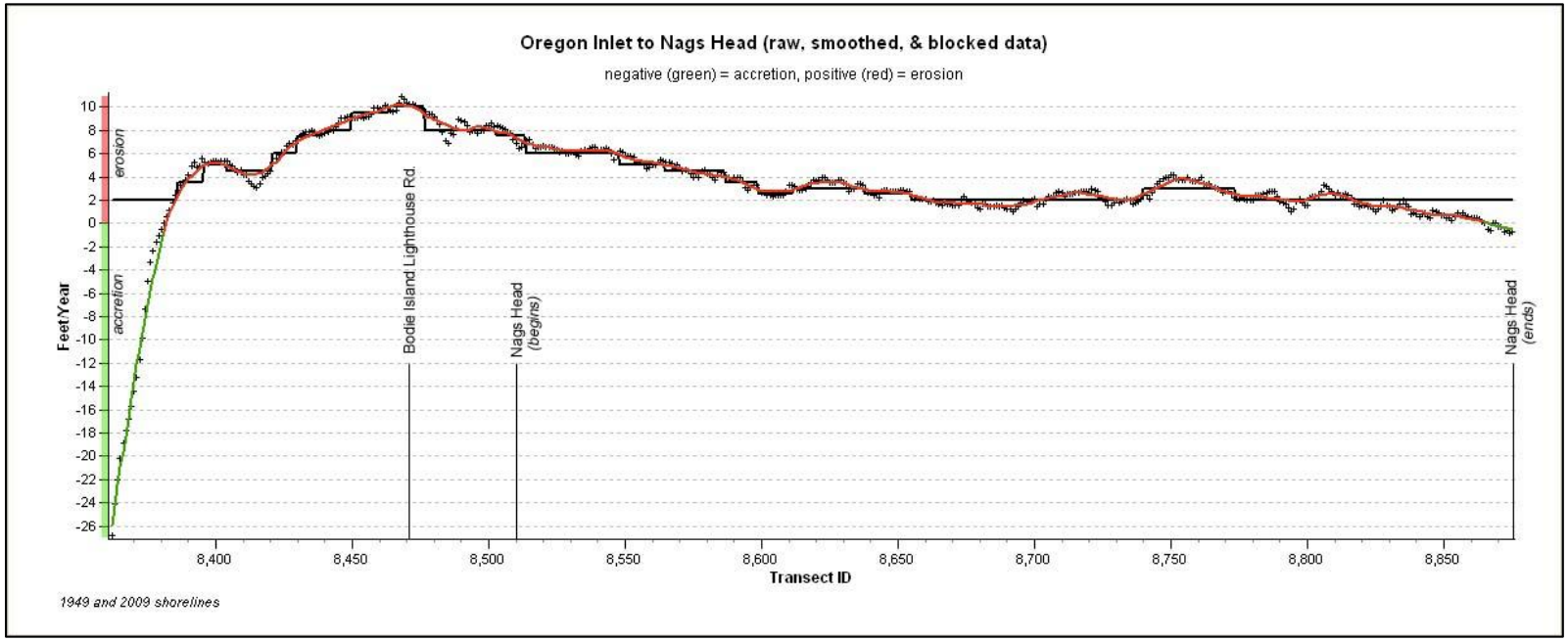
Outer Banks (Salvo, Waves, Rodanthe)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**175**	**8700**	**28544.7**	**5.4**	**100.0%**	**4.3 ft/yr (erosion)**	**13 ft/yr (erosion)**	**-2.5 ft/yr (accretion)**
Erosion	105	5200	17061.2	3.2	60.0%			
Accretion	70	3450	11319.5	2.1	40.0%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	16	750	2460.8	0.5	9.1%			
Eroding 2 to 5 Feet/Year (>2, <=5)	10	450	1476.5	0.3	5.7%			
Eroding 5 to 8 Feet Year (>5, <=8)	23	1100	3609.1	0.7	13.1%			
Eroding More Than 8 Feet/Year	56	2750	9022.8	1.7	32.0%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	16	750	2460.8	0.5	9.1%			
Increased Accretion (1998 - 2009)	0							
No Change	159	7900	25919.9	4.9	90.9%			
Blocking (Setback Factor) Changes per Transect						**5.5**	**2.0**	**12.5**
Block value (setback factor) increase	47	2300	7546.3	1.4	26.9%	1.1	0.5	1.5
Block value (setback factor) decrease	28	1350	4429.4	0.8	16.0%	1.4	0.5	2.5
Block value (setback factor) No Change	100	4950	16241.0	3.1	57.1%			

Outer Banks – Rodanthe to Oregon Inlet



Outer Banks (Rodanthe to Oregon Inlet)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**376**	**18750**	**61518.8**	**11.7**	**100.0%**	**4.4 ft/yr (erosion)**	**21.9 ft/yr (erosion)**	**-6.3 ft/yr (accretion)**
Erosion	315	15700	51511.7	9.8	83.8%			
Accretion	61	3000	9843.0	1.9	16.2%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	30	1450	4757.5	0.9	8.0%			
Eroding 2 to 5 Feet/Year (>2, <=5)	108	5350	17553.4	3.3	28.7%			
Eroding 5 to 8 Feet Year (>5, <=8)	82	4050	13288.1	2.5	21.8%			
Eroding More Than 8 Feet/Year	95	4700	15420.7	2.9	25.3%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	10	450	1476.5	0.3	2.7%			
Increased Accretion (1998 - 2009)	0							
No Change	366	18250	59878.3	11.3	97.3%			
Blocking (Setback Factor) Changes per Transect						**5.3**	**2.0**	**16.5**
Block value (setback factor) increase	99	4900	16076.9	3.0	26.3%	1.2	0.5	2.5
Block value (setback factor) decrease	146	7250	23787.3	4.5	38.8%	3.3	0.5	8.0
Block value (setback factor) No Change	131	6500	21326.5	4.0	34.8%			

Outer Banks – Oregon Inlet to Nags Head

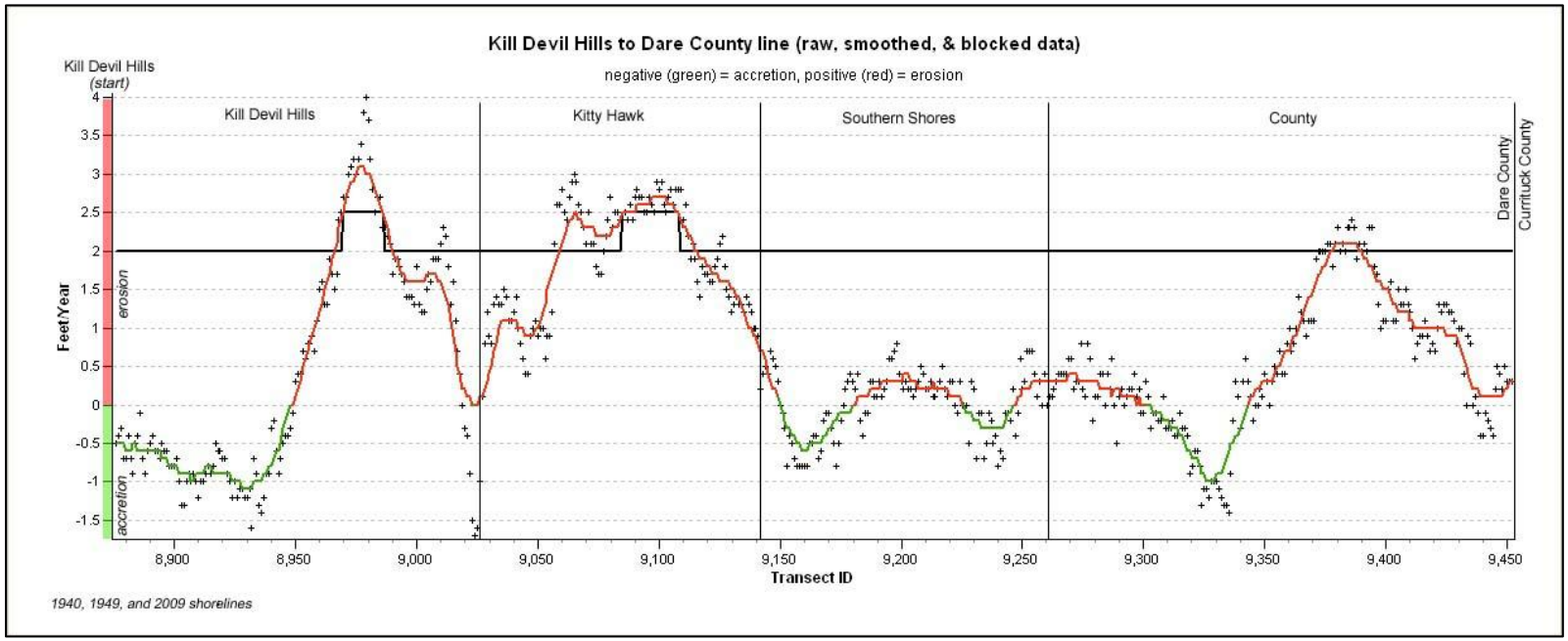


Outer Banks (Oregon Inlet to Nags Head)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**149**	**7400**	**24279.4**	**4.6**	**100.0%**	**4.5 ft/yr (erosion)**	**10.1 ft/yr (erosion)**	**-25.6 ft/yr (accretion)**
Erosion	129	6400	20998.4	4.0	86.6%			
Accretion	20	950	3117.0	0.6	13.4%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	4	150	492.2	0.1	2.7%			
Eroding 2 to 5 Feet/Year (>2, <=5)	28	1350	4429.4	0.8	18.8%			
Eroding 5 to 8 Feet Year (>5, <=8)	34	1650	5413.7	1.0	22.8%			
Eroding More Than 8 Feet/Year	63	3100	10171.1	1.9	42.3%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	36	1750	5741.8	1.1	24.2%			
Increased Accretion (1998 - 2009)	0							
No Change	113	5600	18373.6	3.5	75.8%			
Blocking (Setback Factor) Changes per Transect						**6.3**	**2.0**	**10.0**
Block value (setback factor) increase	67	3300	10827.3	2.1	45.0%	2.2	0.5	4.0
Block value (setback factor) decrease	31	1500	4921.5	0.9	20.8%	0.8	0.5	2.0
Block value (setback factor) No Change	51	2500	8202.5	1.6	34.2%			

Outer Banks – Oregon Inlet to Nags Head (continued)

Outer Banks (Nags Head)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**364**	**18150**	**59550.2**	**11.3**	**100.0%**	**2.9 ft/yr (erosion)**	**7.2 ft/yr (erosion)**	**-0.5 ft/yr (accretion)**
Erosion	355	17700	58073.7	11.0	97.5%			
Accretion	9	400	1312.4	0.2	2.5%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	101	5000	16405.0	3.1	27.7%			
Eroding 2 to 5 Feet/Year (>2, <=5)	201	10000	32810.0	6.2	55.2%			
Eroding 5 to 8 Feet Year (>5, <=8)	53	2600	8530.6	1.6	14.6%			
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	0							
No Change	364	18150	59550.2	11.3	100.0%			
Blocking (Setback Factor) Changes per Transect						**3.0**	**2.0**	**7.5**
Block value (setback factor) increase	121	6000	19686.0	3.7	33.2%	-0.8	0.5	2.0
Block value (setback factor) decrease	54	2650	8694.7	1.6	14.8%	0.8	0.5	1.0
Block value (setback factor) No Change	189	9400	30841.4	5.8	51.9%			

Outer Banks – Kill Devil Hills to Dare County Line (4 Tables)



Outer Banks (Kill Devil Hills)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**153**	**7600**	**24935.6**	**4.7**	**100.0%**	**0.4 ft/yr (erosion)**	**3.1 ft/yr (erosion)**	**-1.1 ft/yr (accretion)**
Erosion	77	3800	12467.8	2.4	50.3%			
Accretion	76	3750	12303.8	2.3	49.7%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	53	2600	8530.6	1.6	34.6%			
Eroding 2 to 5 Feet/Year (>2, <=5)	24	1150	3773.2	0.7	15.7%			
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	7	300	984.3	0.2	4.6%			
Increased Accretion (1998 - 2009)	0							
No Change	146	7250	23787.3	4.5	95.4%			
Blocking (Setback Factor) Changes per Transect						**2.1**	**2.0**	**2.5**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	24	1150	3773.2	0.7	15.7%	0.8	0.5	1.0
Block value (setback factor) No Change	129	6400	20998.4	4.0	84.3%			

Outer Banks – Kill Devil Hills to Dare County Line (continued)

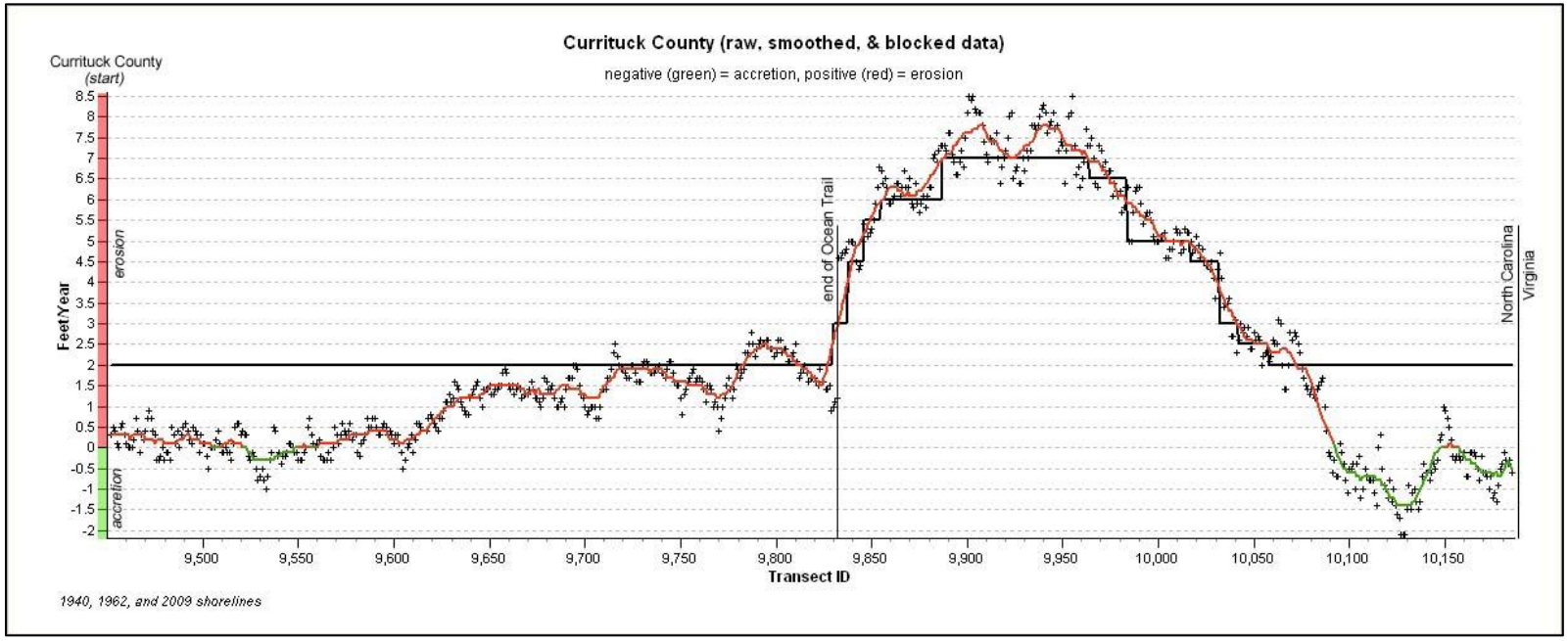
Outer Banks (Kitty Hawk)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**115**	**5700**	**18701.7**	**3.5**	**100.0%**	**1.8 ft/yr (erosion)**	**2.7 ft/yr (erosion)**	**No Accretion**
Erosion	115	5700	18701.7	3.5	100.0%			
Accretion	0	-50	-164.1	0.0	0.0%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	58	2850	9350.9	1.8	50.4%			
Eroding 2 to 5 Feet/Year (>2, <=5)	57	2800	9186.8	1.7	49.6%			
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	0							
No Change	115	5700	18701.7	3.5	100.0%			
Blocking (Setback Factor) Changes per Transect						**2.1**	**0.5**	**2.5**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	49	2400	7874.4	1.5	42.6%	1.1	0.5	2.0
Block value (setback factor) No Change	66	3250	10663.3	2.0	57.4%			

Outer Banks (Southern Shores)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**119**	**5900**	**19357.9**	**3.7**	**100.0%**	**0 ft/yr (erosion)**	**0.7 ft/yr (erosion)**	**-0.6 ft/yr (accretion)**
Erosion	67	3300	10827.3	2.1	56.3%			
Accretion	52	2550	8366.6	1.6	43.7%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	67	3300	10827.3	2.1	56.3%			
Eroding 2 to 5 Feet/Year (>2, <=5)	0							
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	0							
Increased Accretion (1998 - 2009)	35	1700	5577.7	1.1	29.4%			
No Change	84	4150	13616.2	2.6	70.6%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	0							
Block value (setback factor) No Change	119	5900	19357.9	3.7	100.0%			

Outer Banks – Kill Devil Hills to Dare County Line (continued)

Outer Banks (Southern Shores to County Line)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**192**	**9550**	**31333.6**	**5.9**	**100.0%**	**0.5 ft/yr (erosion)**	**2.1 ft/yr (erosion)**	**-1 ft/yr (accretion)**
Erosion	150	7450	24443.5	4.6	78.1%			
Accretion	42	2050	6726.1	1.3	21.9%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	138	6850	22474.9	4.3	71.9%			
Eroding 2 to 5 Feet/Year (>2, <=5)	12	550	1804.6	0.3	6.3%			
Eroding 5 to 8 Feet Year (>5, <=8)	0							
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	11	500	1640.5	0.3	5.7%			
Increased Accretion (1998 - 2009)	0							
No Change	181	9000	29529.0	5.6	94.3%			
Blocking (Setback Factor) Changes per Transect						**2.0**	**2.0**	**2.0**
Block value (setback factor) increase	0							
Block value (setback factor) decrease	27	1300	4265.3	0.8	14.1%	1.0	1.0	1.0
Block value (setback factor) No Change	165	8200	26904.2	5.1	85.9%			

Currituck County



Outer Banks (Currituck County)	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**732**	**36550**	**119920.6**	**22.7**	**100.0%**	**2.3 ft/yr (erosion)**	**7.8 ft/yr (erosion)**	**-1.4 ft/yr (accretion)**
Erosion	612	30550	100234.6	19.0	83.6%			
Accretion	120	5950	19522.0	3.7	16.4%			
Data Gap/Missing Data	*0*							
Eroding 2ft/Year or Less (>0, <=2)	336	16750	54956.8	10.4	45.9%			
Eroding 2 to 5 Feet/Year (>2, <=5)	115	5700	18701.7	3.5	15.7%			
Eroding 5 to 8 Feet Year (>5, <=8)	161	8000	26248.0	5.0	22.0%			
Eroding More Than 8 Feet/Year	0							
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	111	5500	18045.5	3.4	15.2%			
Increased Accretion (1998 - 2009)	0							
No Change	621	31000	101711.0	19.3	84.8%			
Blocking (Setback Factor) Changes per Transect						**3.1**	**2.0**	**7.0**
Block value (setback factor) increase	138	6850	22474.9	4.3	18.9%	1.5	0.5	3.0
Block value (setback factor) decrease	44	2150	7054.2	1.3	6.0%	1.1	0.5	1.5
Block value (setback factor) No Change	550	27450	90063.5	17.1	75.1%			

Statewide Summary

Statewide Summary	Transects	Meters	Feet	Miles	%	Mean Rate Value (ft/yr)	Minimum Rate Value (ft/yr)	Maximum Rate Value (ft/yr)
Shoreline Analyzed	**9897**	**494800**	**1623438.8**	**307.5**	**100.0%**	**1.6 ft/yr (erosion)**	**37.6 ft/yr (erosion)**	**-54.3 ft/yr (accretion)**
Erosion	6509	325400	1067637.4	202.2	65.8%			
Accretion	3293	164600	540052.6	102.3	33.3%			
Data Gap/Missing Data	*95*	*4700*	*15420.7*	*2.9*	*1.0%*			
Eroding 2ft/Year or Less (>0, <=2)	2386	119250	391259.3	74.1	24.1%			
Eroding 2 to 5 Feet/Year (>2, <=5)	2232	111550	365995.6	69.3	22.6%			
Eroding 5 to 8 Feet Year (>5, <=8)	1098	54850	179962.9	34.1	11.1%			
Eroding More Than 8 Feet/Year	793	39600	129927.6	24.6	8.0%			
Smoothed Rate Changes per Transect								
Increased Erosion (1998 - 2009)	15	700	2296.7	0.4	0.2%			
Increased Accretion (1998 - 2009)	0							
No Change	9882	494050	1620978.1	307.0	99.8%			
Blocking (Setback Factor) Changes per Transect						**3.4**	**2.0**	**28.0**
Block value (setback factor) increase	1568	78350	257066.4	48.7	15.8%	1.5	0.5	16.0
Block value (setback factor) decrease	1989	99400	326131.4	61.8	20.1%	2.0	0.5	21.0
Block value (setback factor) No Change	6340	316950	1039913.0	197.0	64.1%			

Historical Comparisons

Erosion Rate Studies	2011	2003	1992	1986 *	1980 *
Miles (total)	307.4	312	300	237	245
Accretion	103.7 (33.7%)	99 (32%)	79 (26%)	63 (27%)	54 (22%)
Erosion =< 2 ft/yr	190.2 (61.9%)	193 (62%)	165 (59%)	144 (61%)	149 (61%)
Erosion 2-5 ft/yr	62.1 (20.2%)	64 (20%)	54 (19%)	43 (18%)	52 (21%)
Erosion 5-8 ft/yr	31.5 (10.2%)	28 (9%)	30 (11%	20 (8%)	22 (9%)
Erosion >8 ft/yr	20.8 (6.8%)	27 (9%)	32 (11%)	22 (9%)	22 (9%)
Maximum	28	30	16	17	19
Mean **	3.4	4.3	3.8	3.7	3.9

1. *(*) Does not include Shackleford Banks, Core Banks, or Active Inlet Areas*
2. *(**) This mean value is of the blocked erosion rates, and not the actual mean erosion rate. The actual mean erosion rate is somewhat lower because accreting and stable areas are counted as erosion of two feet per year in the erosion factor values.*