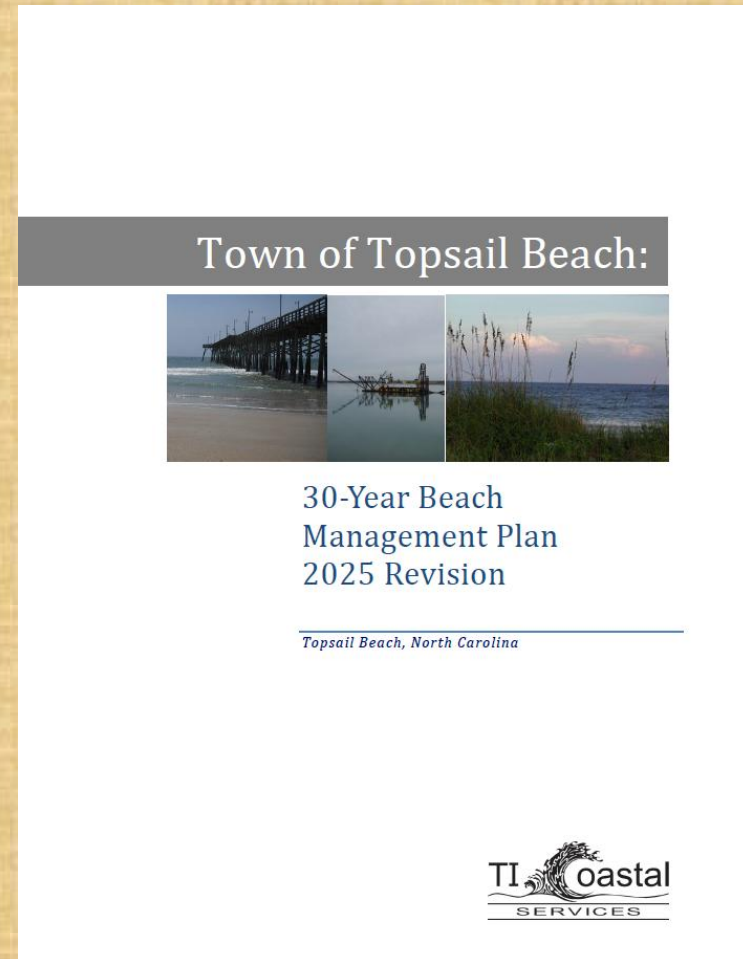
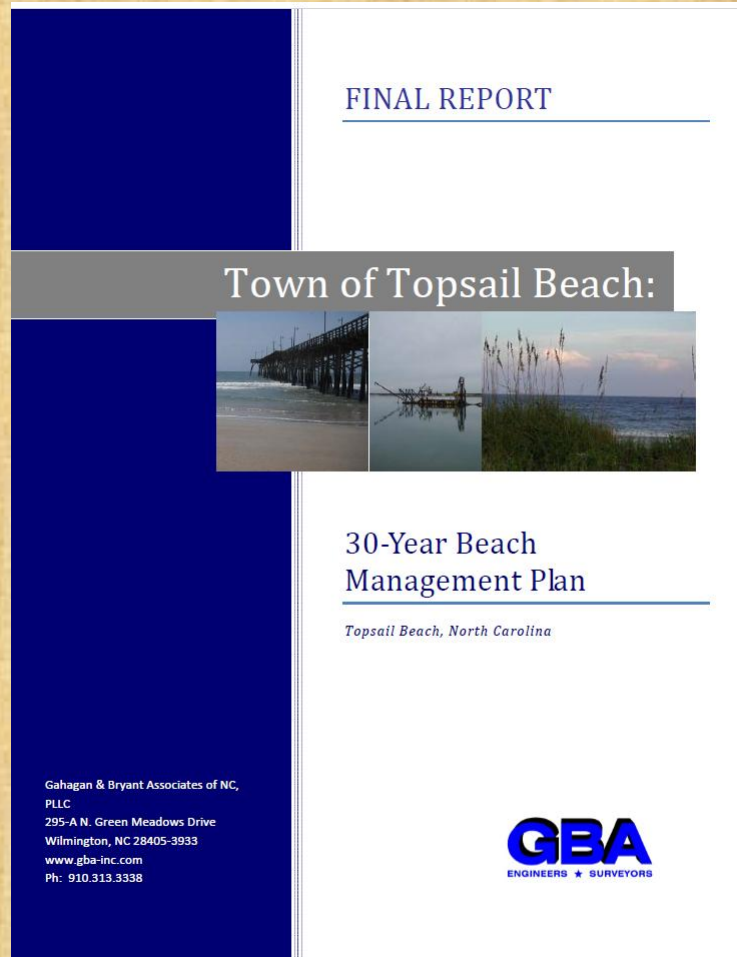


Town of Topsail Beach 30-Year Beach, Inlet, and Sound Management Plan 2025 Revision



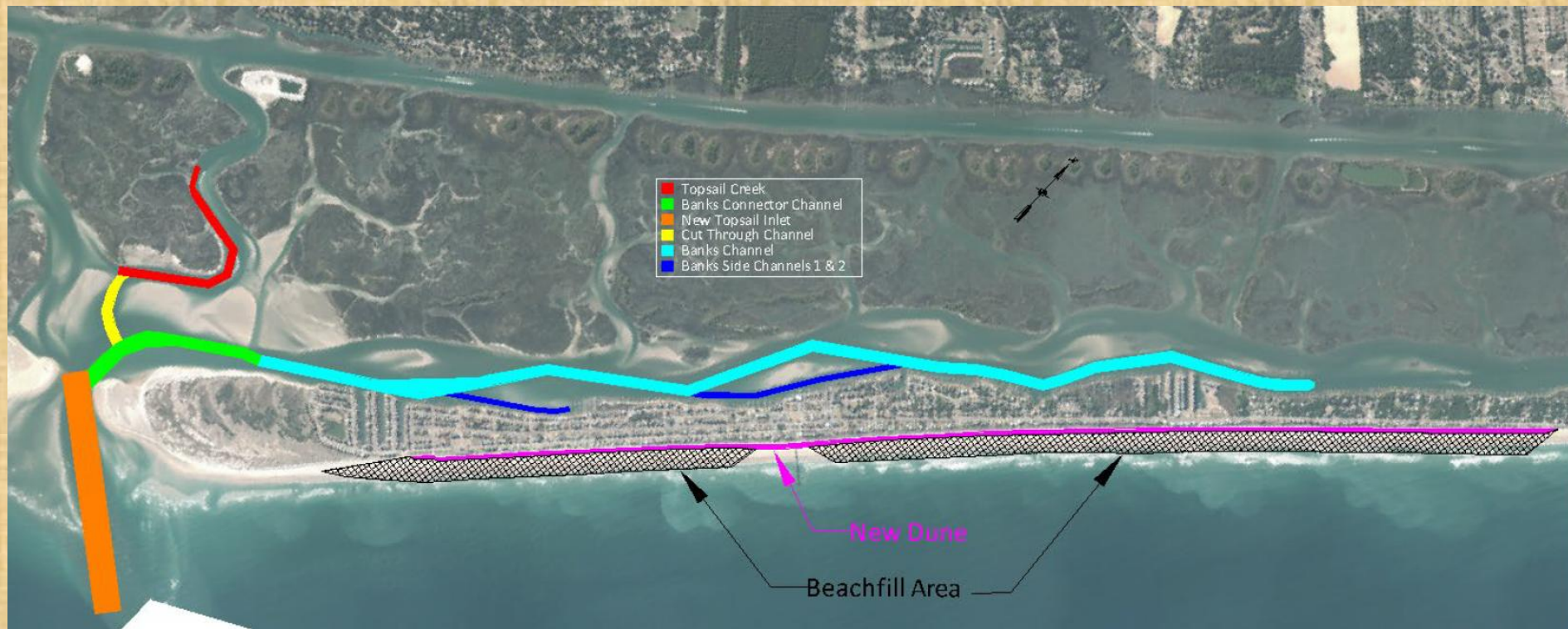
Town of Topsail Beach Initially Implemented A 30 Year Plan in 2011

This Revision Updates the PLAN and carries it through 2055



The PLAN Encompasses Management of the Beach & Dunes, Topsail Inlet, and Topsail Sound as a Holistic System

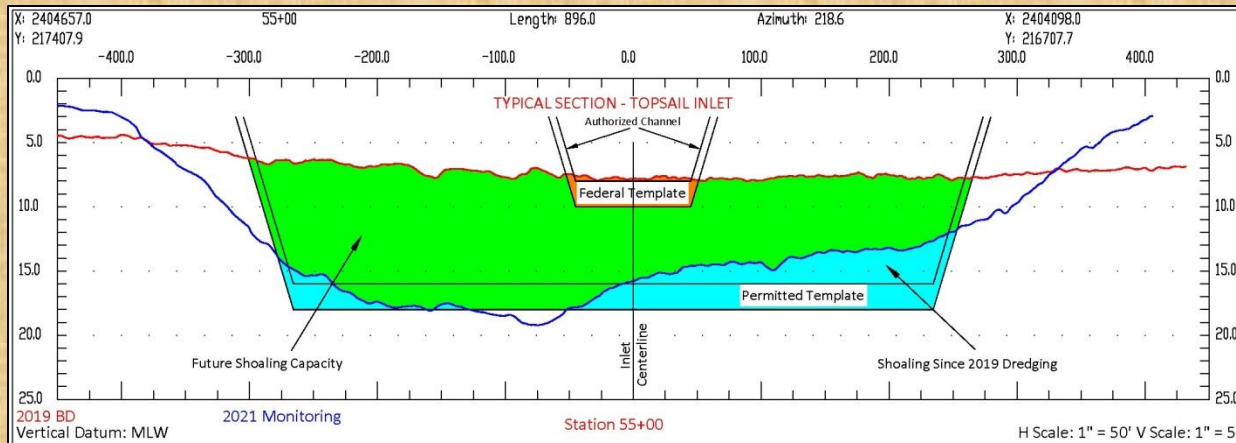
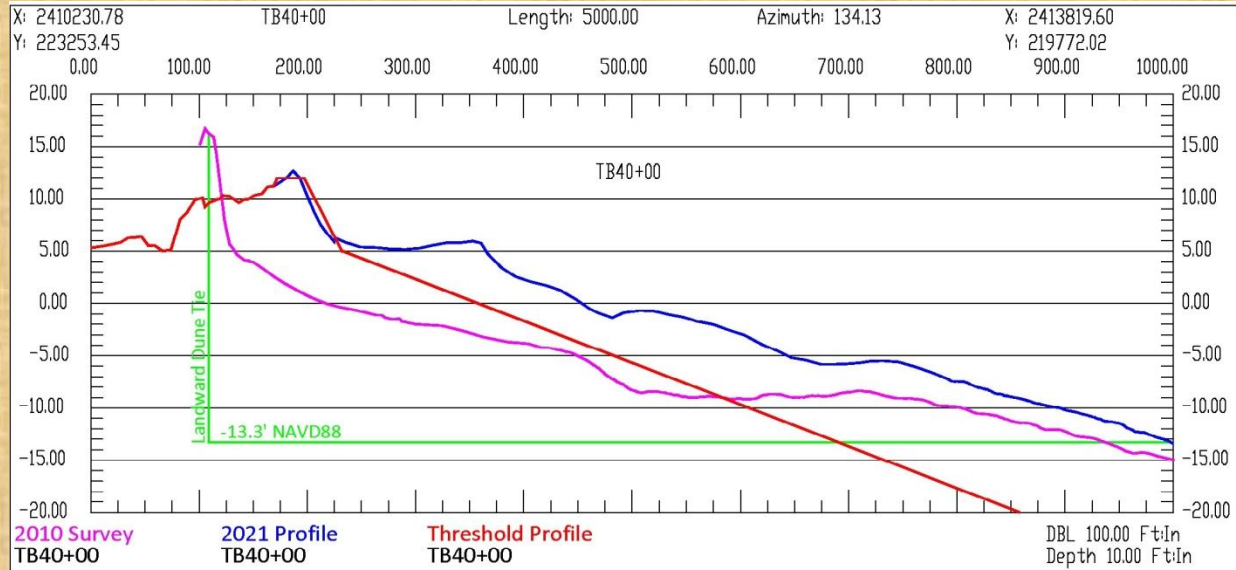
Thus the Topsail Beach, Inlet and Sound (BIS) Project



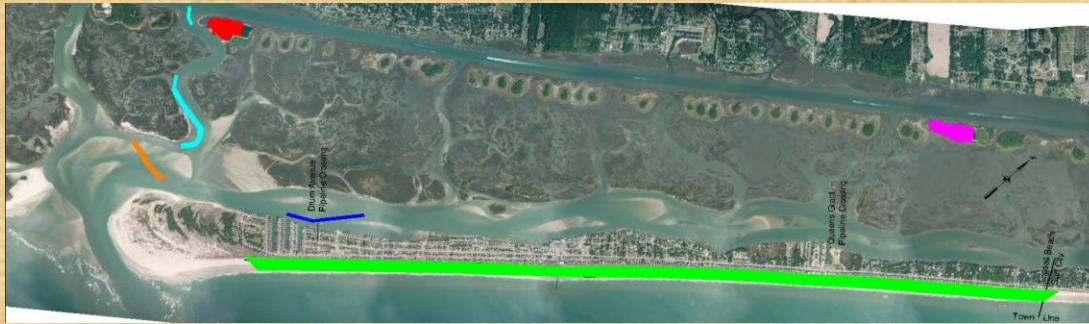
Thresholds

Three Triggers for Action:

- 1) Temporal – Every 4 years
- 2) Oceanfront Volumetric Losses
- 3) Inlet/Interior Channel Shoaling

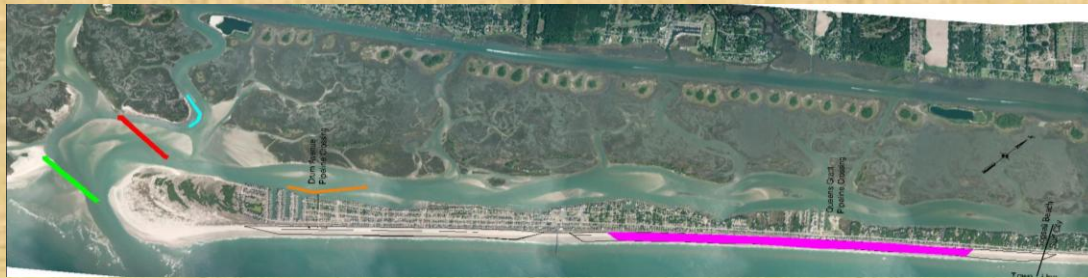


Project History



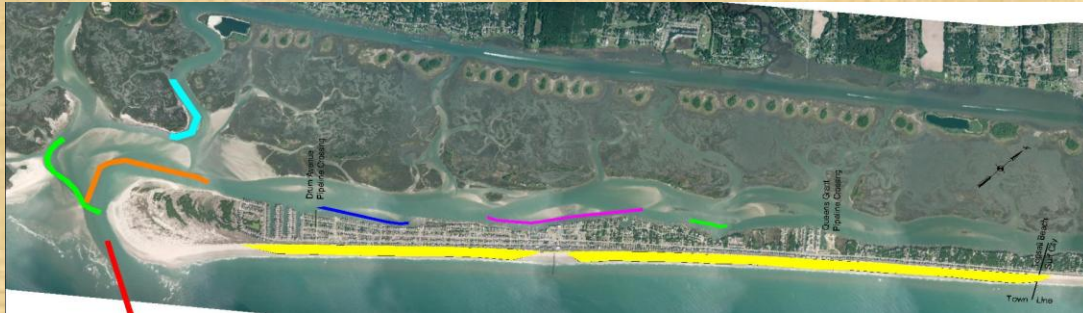
Initial Construction

- November 2010 – April 2011
- 1,000,000 CY



Hurricane Irene FEMA Phase 1

- December 2011 – April 2012
- 184,000 CY



Hurricane Irene FEMA Phase 2

- November 2014 – April 2015
- 812,000 CY



2020-2021 CSDR Project

- February 2020-April 2021
- 1,700,000 CY (Feb '20 to Apr '20)
- 1,000,000 CY (Nov '20 to Mar '21)

**The Purpose of This Program is not just to
Provide Protection For Homes,
But to Turn Back the Clock on Erosion**



Topsail Beach Shoreline



2011

vs.

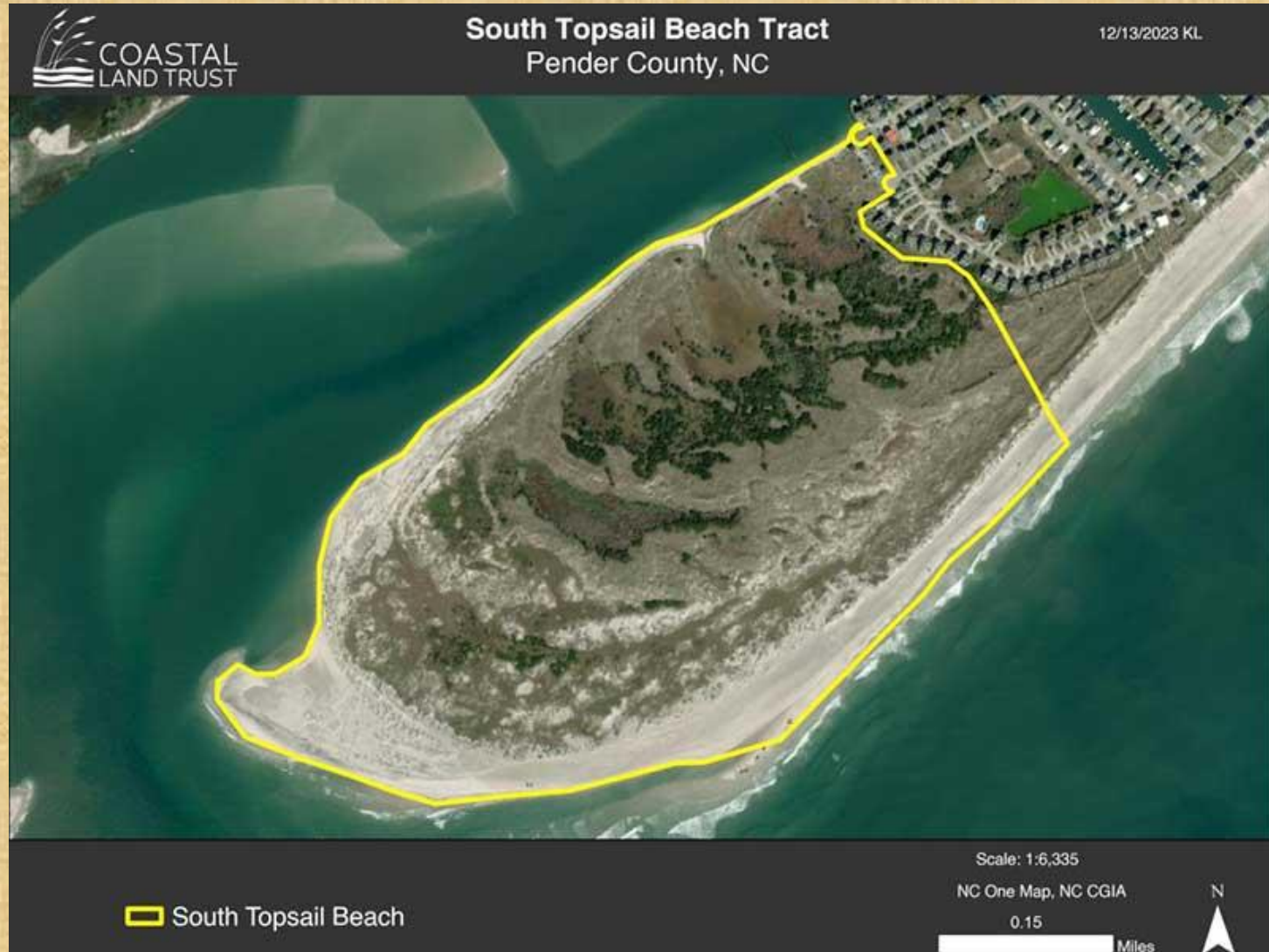
2024

**2025 Shoreline is now
comparable to 1995
before *Hurricane Fran***

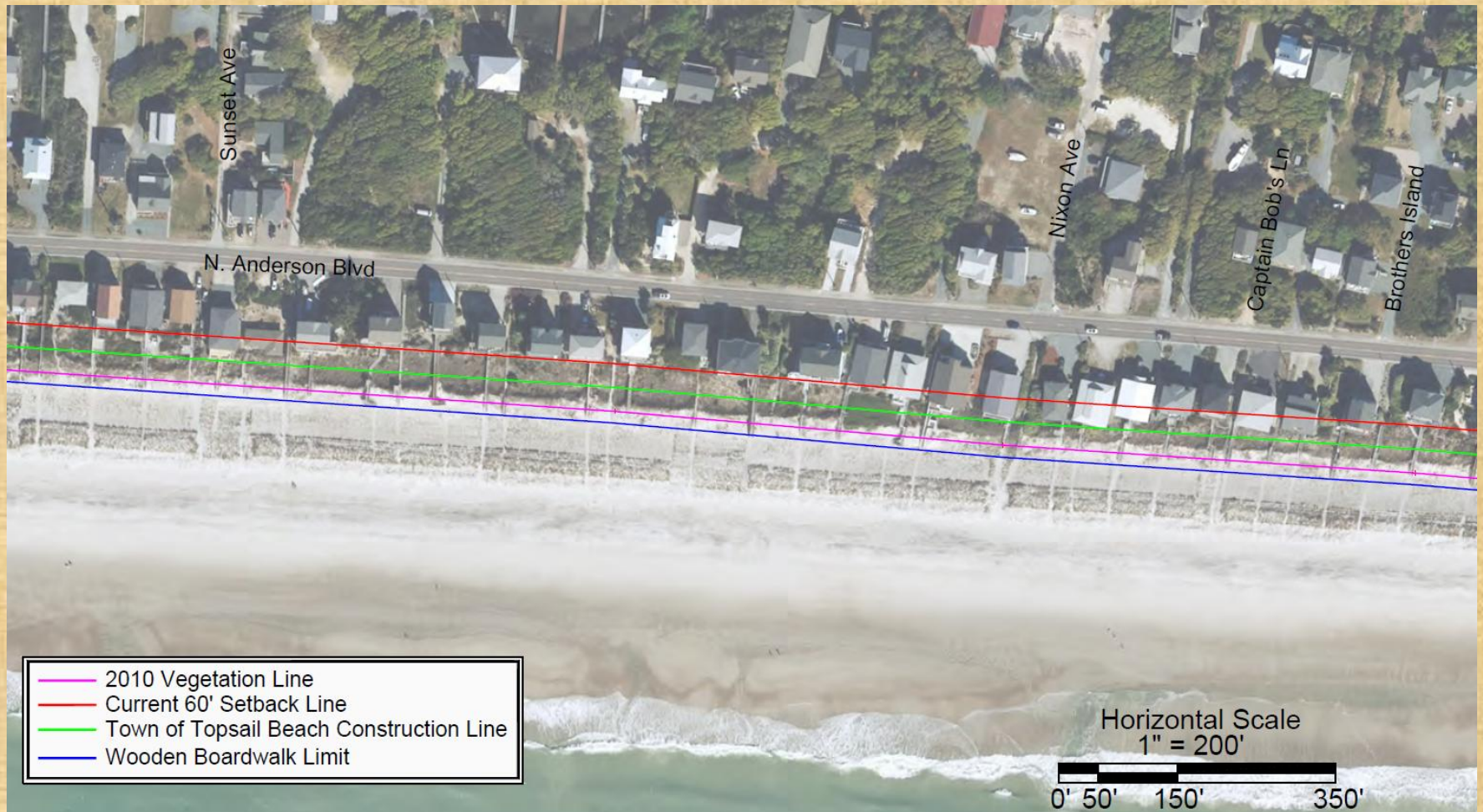


STEWARDSHIP

Conservation of Undeveloped Land @ Serenity Point



The Coastal Construction & Auxiliary Construction Lines



Town of Topsail Beach BIS Nourishment Projects

Project	Yardage	Gross Cost -Including Engineering		Cost/CY
2011 Initial Project	979,000	\$	8,244,764.00	\$ 8.42
Town		\$	5,899,690.00	\$ 6.03
State		\$	2,345,074.00	\$ 2.40
FEMA				\$ -
2012 Hurricane Irene				
Phase 1	184,078	\$	3,041,920.00	\$ 16.53
Town		\$	-	\$ -
State		\$	-	\$ -
FEMA		\$	3,041,920.00	\$ 16.53
2014 Hurricane Irene				
Phase 2	835,213	\$	10,347,748.00	\$ 12.39
Town		\$	2,416,678.00	\$ 2.89
State		\$	3,747,027.00	\$ 4.49
FEMA		\$	4,184,042.00	\$ 5.01
2019 Hurricane Matthew	Phase	107,635	4,102,554	\$ 38.12
Town		\$	-	\$ -
State		\$	-	\$ -
FEMA		\$	4,102,554.00	\$ 38.12
2020 Hurricane Matthew				
Matthew	264,055	\$	4,271,426.00	\$ 16.18
Town		\$	-	\$ -
State		\$	-	\$ -
FEMA		\$	4,271,426.00	\$ 16.18

Project	Yardage	Gross Cost -Including Engineering		Cost/CY
2020-21 Hurricane Florence & Local CSDR Expansion	1,470,385	\$	19,736,515.00	\$ 13.42
Town				\$ -
State				\$ -
		\$	19,736,515.00	\$ 13.42
2021 Hurricane Florence & Local CSDR Expansion	1,327,933	\$	13,783,555.77	\$ 10.38
Town		\$	198,914.00	\$ 0.15
State		\$	8,000,000.40	\$ 6.02
FEMA		\$	5,584,641.37	\$ 4.21
2024 Maintenance and Hurricane Isais	1,973,400	\$	24,859,298.63	\$ 12.60
Town		\$	4,874,012.16	\$ 2.47
State		\$	18,299,586.47	\$ 9.27
FEMA		\$	1,685,700.00	\$ 0.85
TOTAL	7,141,699	\$	88,387,781.08	\$ 12.38
Town		\$	13,389,294.16	\$ 1.87
State		\$	32,391,687.87	\$ 4.54
FEMA		\$	42,606,798.37	\$ 5.97

8 Projects over 14 Years

7,141,000 Cubic Yards

\$88,400,000

Programmatic Cost Estimate

Fiscal Year	Notes	Project Monitoring		Planning/ Permitting	Construction Engineering	Legal	Construction	TOTAL per event	Contingency 15%
		Physical	Biological						
2023	1,900,000 CY	\$60,000	\$35,000	\$80,000	\$490,000	\$5,000	\$21,292,000	\$21,962,000	\$25,256,300
2024	\$5.4 M mob \$9.86/CY	\$61,800	\$36,050	\$80,000		\$5,000			
2025		\$63,654	\$37,132	\$30,000		\$5,000			
2026		\$65,564	\$38,245	\$30,000		\$5,000			
2027	1,000,000 CY	\$67,531	\$39,393	\$50,000	\$500,000	\$5,000	\$16,250,000	\$17,369,368	\$19,974,773
2028	\$6.0 M mob \$10.25/CY	\$69,556	\$40,575	\$30,000		\$5,000			
2029		\$71,643	\$41,792	\$30,000		\$5,000			
2030		\$73,792	\$43,046	\$30,000		\$5,000			
2031	1,000,000 CY	\$76,006	\$44,337	\$50,000	\$510,000	\$5,000	\$17,000,000	\$18,130,747	\$20,850,359
2032	\$6.25 M mob \$10.75/CY	\$78,286	\$45,667	\$30,000		\$5,000			
2033		\$80,635	\$47,037	\$30,000		\$5,000			
2034		\$83,054	\$48,448	\$30,000		\$5,000			
2035	1,000,000 CY	\$85,546	\$49,902	\$50,000	\$520,000	\$5,000	\$17,750,000	\$18,948,575	\$21,790,861
2036	\$6.5 M mob \$11.25/CY	\$88,112	\$51,399	\$30,000		\$5,000			
2037		\$90,755	\$52,941	\$30,000		\$5,000			
2038		\$93,478	\$54,529	\$30,000		\$5,000			
2039	1,000,000 CY	\$96,282	\$56,165	\$50,000	\$530,000	\$5,000	\$18,500,000	\$19,773,661	\$22,739,710
2040	\$6.75 M mob \$11.75/CY	\$99,171	\$57,850	\$30,000		\$5,000			
2041		\$102,146	\$59,585	\$30,000		\$5,000			
2042		\$105,210	\$61,373	\$30,000		\$5,000			
2043	1,000,000 CY	\$108,367	\$63,214	\$50,000	\$540,000	\$5,000	\$19,250,000	\$20,606,915	\$23,697,953
2044	\$7.0 M mob \$12.25/CY	\$111,618	\$65,110	\$30,000		\$5,000			
2045		\$114,966	\$67,064	\$30,000		\$5,000			
2046		\$118,415	\$69,076	\$30,000		\$5,000			
2047	1,000,000 CY	\$121,968	\$71,148	\$50,000	\$550,000	\$5,000	\$20,000,000	\$21,449,364	\$24,666,769
2048	\$7.25 M mob \$12.75/CY	\$125,627	\$73,282	\$30,000		\$5,000			
2049		\$129,395	\$75,481	\$30,000		\$5,000			
2050		\$133,277	\$77,745	\$30,000		\$5,000			
2051	1,000,000 CY	\$137,276	\$80,077	\$50,000	\$560,000	\$5,000	\$20,750,000	\$22,302,161	\$25,647,485
2052	\$7.5 M mob \$13.25/CY	\$141,394	\$82,480	\$30,000		\$5,000			
2053		\$145,636	\$84,954	\$30,000		\$5,000			
2054		\$150,005	\$87,503	\$30,000		\$5,000			
2054	1,000,000 CY	\$154,505	\$90,128	\$50,000	\$570,000	\$5,000	\$21,500,000	\$23,166,604	\$26,641,595
Total Amount over 30 Year Period		\$3,304,670	\$1,927,724	\$1,250,000	\$4,770,000	\$165,000	\$172,292,000	\$183,709,395	\$211,265,804
Annualized Rate for Budgeting		\$103,271	\$60,241	\$39,063	\$149,063	\$5,156	\$5,384,125	\$5,740,919	\$6,602,056
Estimated Town Cost (Annual)		\$1,650,514							
Estimated SDI Fund Cost (Annual)		\$4,951,542							
Total Annualized Costs		\$6,602,056							

Primary Funding Mechanisms

Topsail Beach

Ad Valorem Taxes	0.145	\$1,092,500/yr
Room Occupancy Tax		\$ 320,000/yr
Parking		\$ 100,000/yr

Pender County

General Fund		\$ 180,000/yr
ROT		\$ 640,000/yr

TOTAL LOCAL FUNDS		\$2,332,500/yr
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State

Shallow Draft Inlet Fund (on avg)		\$4,950,000/yr
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Federal

FEMA when applicable

Goal is to always keep money in hand to Cash Flow next Project

Town of Topsail Beach

30-Year Beach, Inlet, and Sound Management Plan

2025 Revision

