

# Cost and Funding SC-NTB Federal Beach Project

## Town of Surf City

Funding Workshop Series #3  
January 26, 2012

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PAR CONSULTING, LLC

# Today's Workshop Agenda

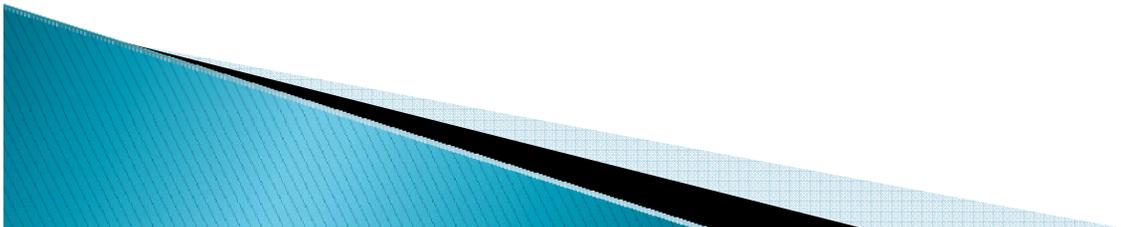
## I. Review

- Workshop schedule & Input
- SC-NTB Federal Project – Plan 1550
- Funding Contributors – We're Not Alone

## II. Walkovers & Parking

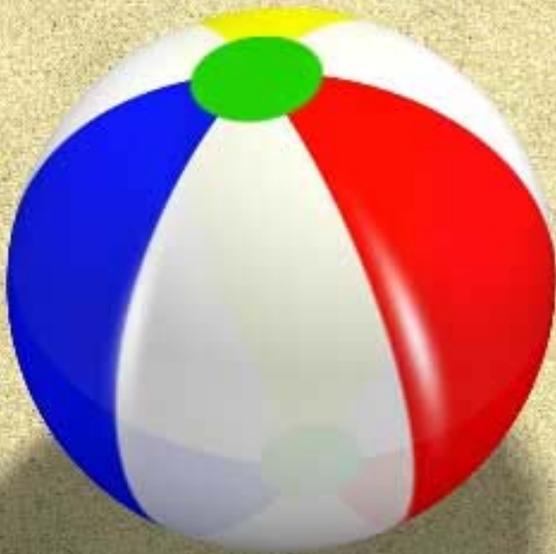
## III. Draft Funding Plan

## ■ Open Discussion



# Review Part I

Workshop Schedule &  
Participation



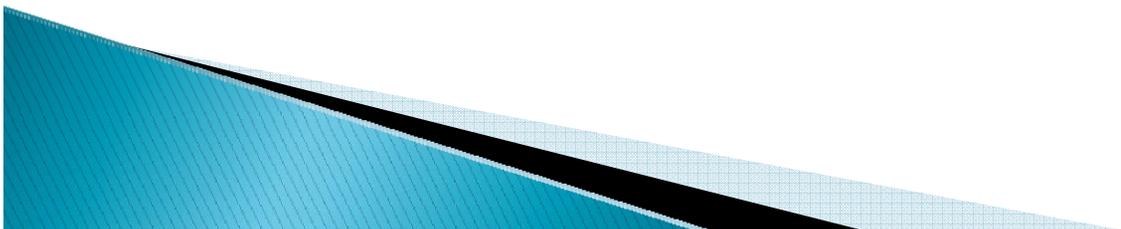
# Beach Funding Workshop Schedule

- Nov. 3: Workshop #1, Principles & Secrets
- Dec. 8: Workshop #2, Funding Concept
- Jan. 26: Workshop# 3, First Draft Plan
- March 2: Workshop #4, Second Draft Plan
- April 2: Presentation to City Council
- May 1: Final Report to Council

Note: Each Workshop will be conducted twice on the scheduled day

# How You Can Participate

- ▶ Attend and participate in Workshops
- ▶ Review Materials on City's Website
- ▶ Review and Comment on the Draft Plans
- ▶ Call me: 512-784-3565
- ▶ Email me: [peter@ravellaconsulting.com](mailto:peter@ravellaconsulting.com)

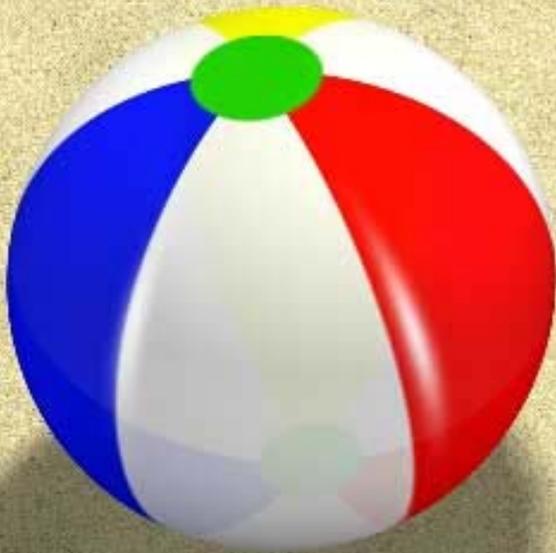


# Project Funding Principles

1. Prepare in Advance for Federal Project
2. Increase Local Savings Rate Beginning in 2013
3. Maximize Federal, State & County Contributions
4. Build on Local History of Sound Planning
5. Seek Stable, Broad-based Funding Mechanism as the Beach is an Asset for the Entire City

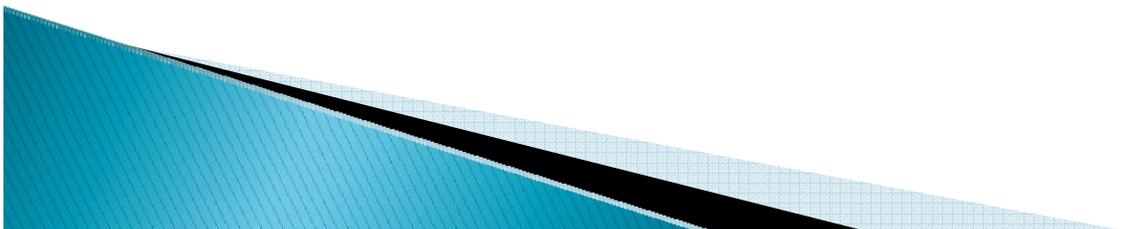
# Review Part II

SC- NTB Federal Project  
"Plan 1550"



# Plan 1550 – Your Federal Beach Project

- ▶ **Length:** 52,150 ft or 9.88 miles
- ▶ **Coverage:** Surf City plus  $\approx$  3.85 miles of NTB
- ▶ **Dune Height:** 15 ft
- ▶ **Dune Width:** 100 ft at base & 25 ft at crest
- ▶ **Dune Walkovers:** 60 included
- ▶ **Dune Vegetation:** Yes
- ▶ **Upper Beach Berm:** 50 ft wide @ +7 ft elevation
- ▶ **Lower Beach:**  $\approx$ 125 ft wide, sloping to the sea
- ▶ **Dry Beach Width:**  $\approx$  200 feet



# Plan 1550 Schematic

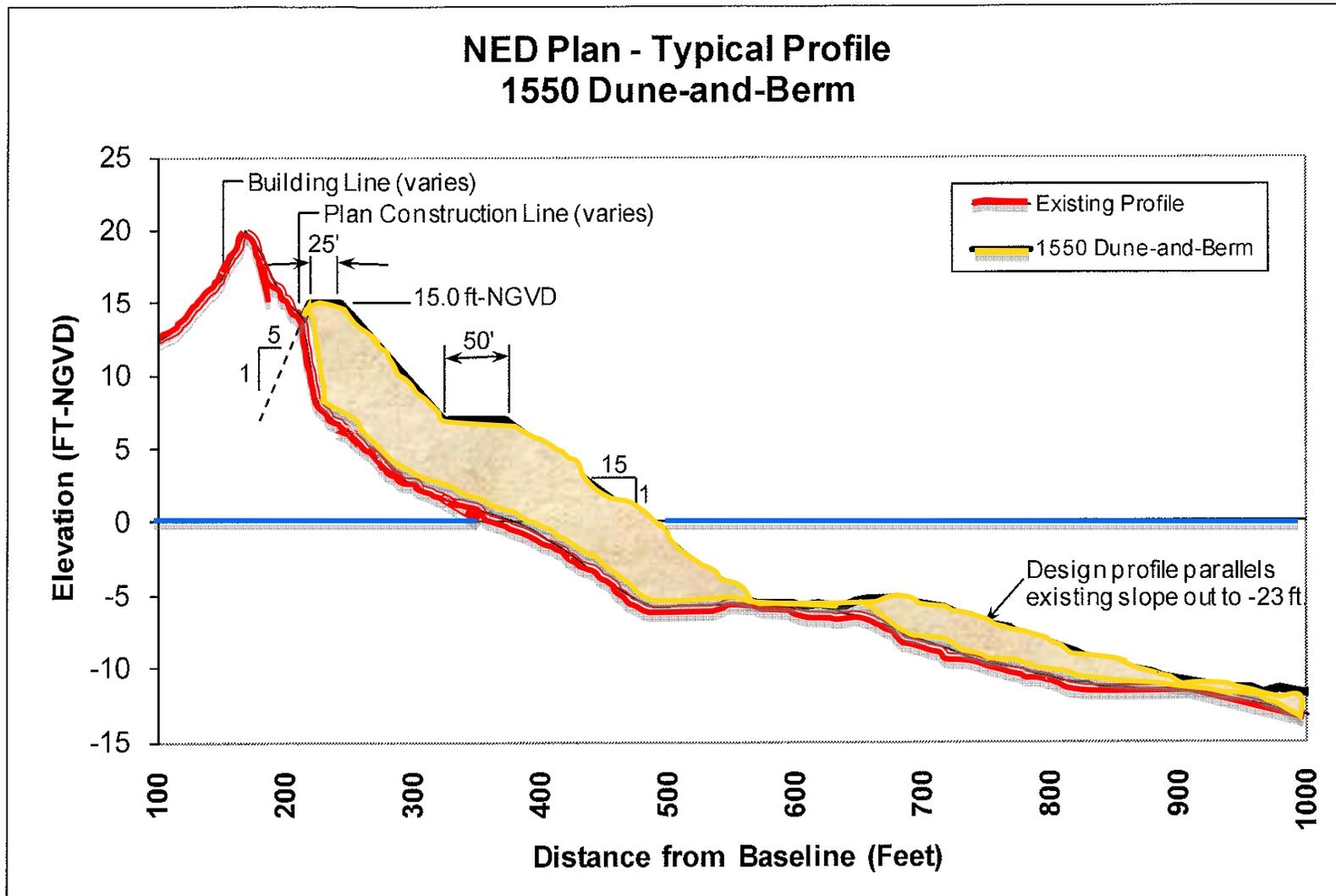
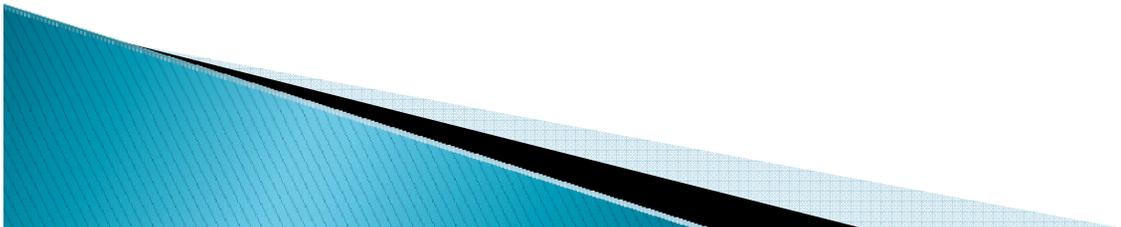


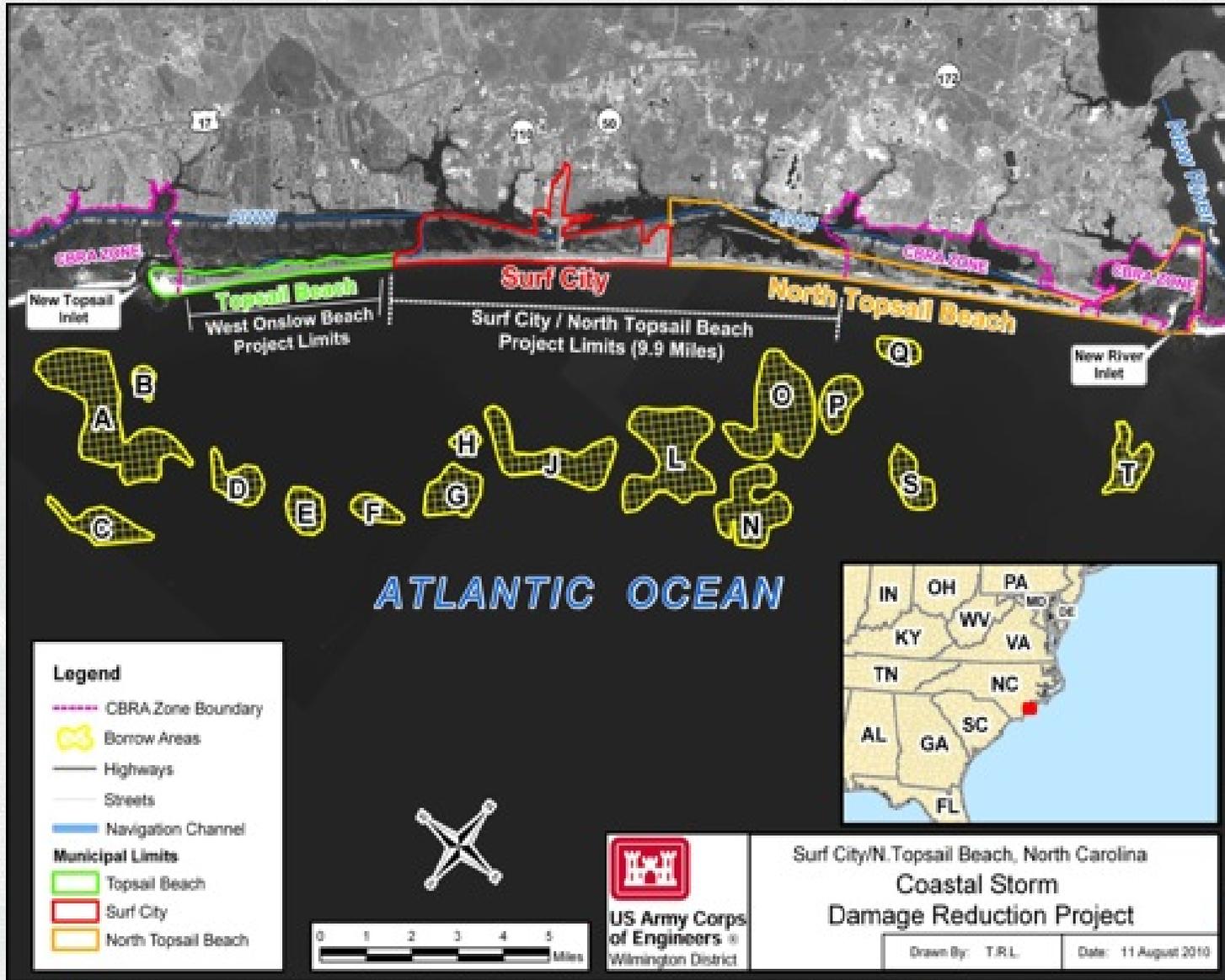
Figure 7.1. Plan 1550, NED Plan, cross section.

# Plan 1550 – Federal Beach Project Basics

- ▶ **Sand Source:** Offshore
- ▶ **Initial Sand Volume:** 11.9 million cu. yds.
- ▶ **Avg. Volume/Foot:** 228 cu. yds
- ▶ **Initial Construction Time:** 4 years
- ▶ **Renourishment Volume:** 2.9 million cu. yds.
- ▶ **Renourishment Interval:** 6 years
- ▶ **Renourishment Events:** 7
- ▶ **Project Duration:** 50 years



# Offshore Borrow Sites

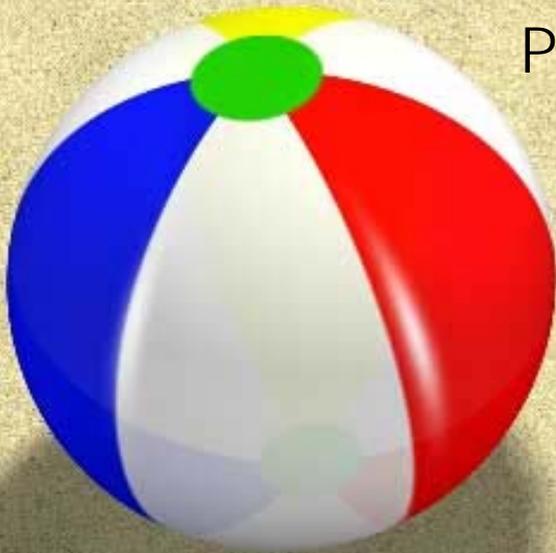


# Federal Funding Under WRDA

- SC–NTB Federal Project is authorized through the Water Resources Development Act or WRDA
- Congress must still authorize and appropriate funds for construction. WRDA expected in next Congress.
  - ✓ Reconnaissance Phase – Section 905(b) Report
  - ✓ Feasibility Study/EIS Phase
  - ✓ Project Design and Permitting
  - ❑ Appropriation for Construction Phase (we need this)
- Federal Project is 50–year duration
- Federal share is 65% initial project and 50% for renourishment
- Planning Start Date: December 2015

# Review Part III

Project Costs & Funding Contributors –  
We're Not Alone



# Plan 1550 Estimated Construction Costs

- ▶ **Initial Project Cost:** **\$132,648,000**  
(Oct 2010 price @ 4.375% Interest)
- ▶ **Renourishment Cost:** **\$21 to \$28 million**
- ▶ **Note 1:** Once the beach is constructed, the Corps will come back every six years to renourish the beach for 50 years.
- ▶ **Note 2:** The estimated renourishment volume is 2.9 million cubic yards, instead of 11.9 M cu. yds. for the first project.
- ▶ **Note 3:** Federal renourishment share is 50%, not 65%. SC will pay about \$3.5 to \$4.5 million per renourishment.

# Surf City's Current Beach Renourishment Fund

Revenue Sources FY 2011–2012	Amount
Ad Valorem Taxes (5¢ per \$100)	\$ 601,157
SC Accommodation Tax on Rentals	\$ 428,000
Pender County & State Transfers	\$ 185,928
Total Annual Fund Revenue	\$1,215,085
Expenditures FY 2011– 2012	(\$ 528,290)
<b>Net Revenues</b>	<b>\$ 676,795</b>
Account Balance as of June 30, 2012	\$ 5,167,054

# Outside Contributions to SC Beach Renourishment Fund, 2002 –2011

Contributor	Amount
State (DENR)	\$ 596,851
Pender County	\$ 891,097
Onslow County (2003–2007)	\$ 82,500
Total Outside Contributions	\$1,570,448

Note: Figures based on Surf City Beach Renourishment Account Ledgers, March 21, 2002 through September 20, 2011.

# Surf City Beach Fund Property Taxes

Revenue Source	FY 2011-2012
SC Assessed Value	\$1,281,005,872
Property Taxes Dedicated to Beach Fund	5 cents/\$100 value
Beach Prop Tax Revenue @ 100% Collection	\$640,500/year
Revenues Generated per 1 cent Property Tax	\$128,100/year
Tax Rate Necessary Additional \$1 million	7.8 cents/\$100 value

Note: Surf City assessed values and property tax revenues are going up as new construction occurs and new areas are annexed. Accommodation Taxes collected from renters are also increasing, typically at 2-4% per year.

# Goal: Build Our Funding Coalition

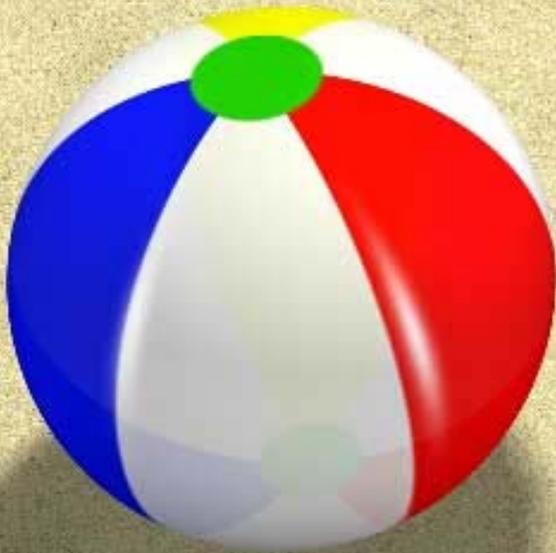
- ▶ USACE Public
- ▶ State of North Carolina Public
- ▶ Pender County Public
- ▶ Onslow County (??) Public
- ▶ Surf City Property Owners Private
- ▶ Surf City Vacation Renters Private
- ▶ **Other Sources:** New Parking Fees or Traffic Fines are not included in the draft funding plan.

# Initial Project Construction Cost?

Fund Source	Percent	Amount	Note
Corps of Engineers	65%	\$ 86,221,200	USACE share may be 1-3% lower based on vacant lots, parking, and other factors
State of North Carolina	17.5%	\$ 23,213,400	State share is 50% of the non-federal share of 35%
Surf City	10.7%	\$ 14,088,212	Based on shoreline length, SC pays 61% of the 17.5% local cost
North Topsail Beach	6.8 %	\$ 9,125,188	Based on shoreline length, NTB pays 39% of the 17.5% local cost
TOTAL	100%	\$132,648,000	Cost is construction only. Easements, parking, admin costs are extra

# Part VI

LERRD, Parking & Access



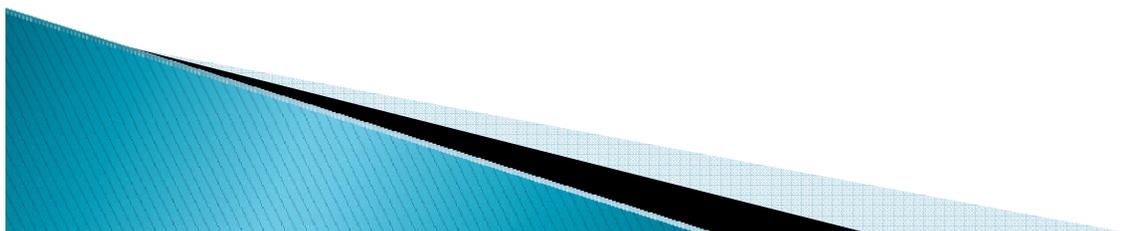
# LERRD COSTS

- ▶ Non-Federal Sponsors are required by law to furnish real estate interests required for cost shared projects. The Project Partnership Agreement (PPA) will require Surf City to provide all lands, easements, rights-of-way, relocations, and disposal/borrow areas (LERRD) required for construction, operation, and maintenance of the project.
- ▶ LERRD Costs incurred by Surf City are Credited against the local share owed
- ▶ LERRD does not include the cost of acquiring new local accessways, parking areas or construction of crossovers  
These costs must be paid by the Town

# LERRD Leases, Easements & Rights of Way for Construction

Identified LERRD Items	Estimated Cost
Construction staging area leases	\$ 105,000
Purchase of properties on beach (1)	\$ 507,000
Permanent construction easements	\$1,918,000
Federal Supervision of Easement Acquisition	\$ 255,000
Federal Relocation Costs	\$ 3,000
TOTAL	\$2,788,000

According to the USACE, Surf City's LERRD Credit is \$4,814,000



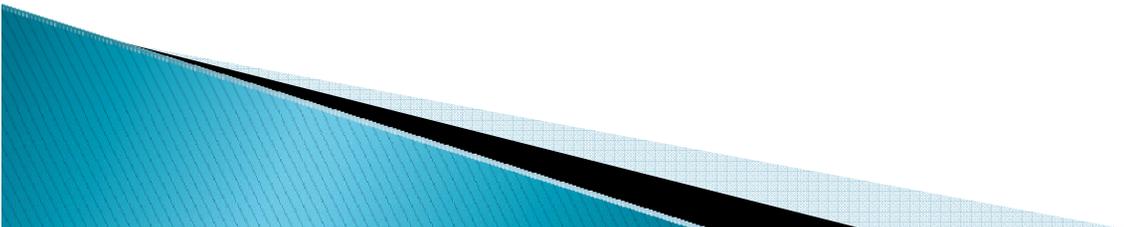
# Public Access & Crossovers

Many public beach access points and parking areas are in the limits of the study area. Surf City has 33 public beach access points in the allowable project limits, and North Topsail has 22. The access sites are shown in Figures 3.1 and 3.2.

The access points generally consist of small parking areas and wooden walkways to the beach. Only three areas of the study area do not have access points within one-quarter mile. Those areas are indicated in red on the access site figures. One such area in Surf City near Elizabeth Street in reaches 34 and 35 is 900 ft. long. Two sites are in North Topsail Beach. One site between Sloan and Lincoln streets in reaches 62 and 63 is 900 ft. long. Another site north of 2nd Street in reaches 76 and 77 is 1,000 ft. long. The total length without adequate public access is 2,800 ft.

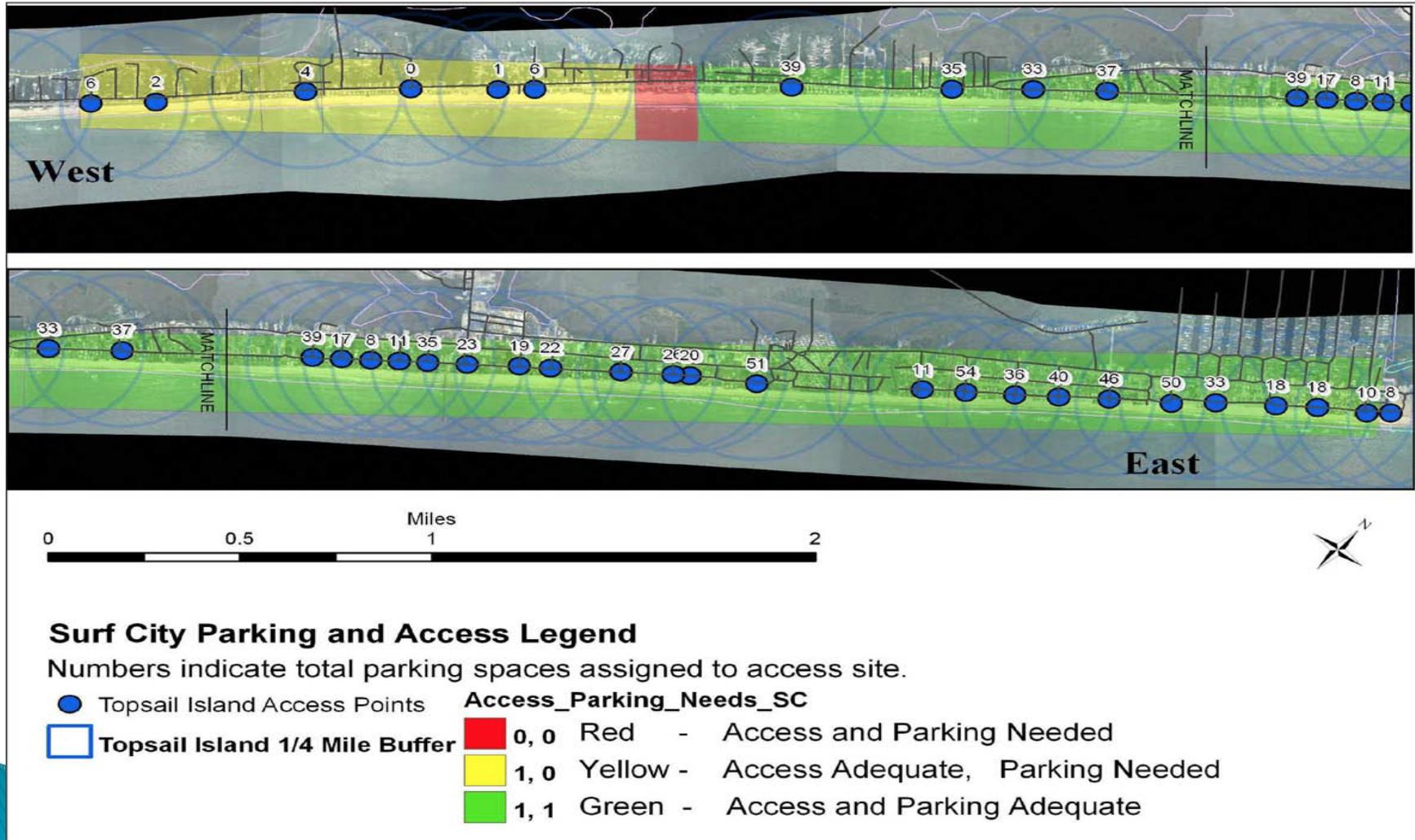
Additional access points would be necessary to meet the requirements for federal cost sharing.

FEIS/FS, Sec 3.04



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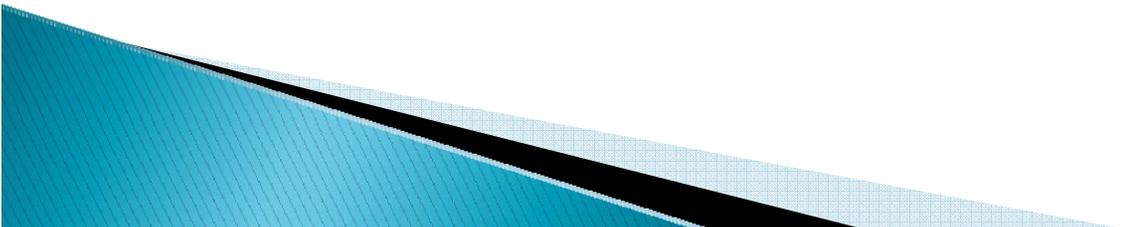
# Surf City Access & Parking Map



# Parking Needs– 37 New Spaces

In addition to direct access pathways to the beach, nearby public parking would be necessary to provide public access to the shoreline. A wide variety of public parking spaces are throughout Surf City and North Topsail Beach. They are at the access sites, on nearby street right-of-ways, and at four large parking lots. In 2003 and in 2008 parking space counts were conducted on site visits by the Wilmington District and town officials. All right-of-way areas were considered eligible for parking with the exception of areas that met designated restrictions (e.g., driveways, fire hydrants, intersection, physical barriers). For North Topsail Beach, only the reaches south of the CBRA zone were included in the count. The combined total from the 2008 count was 1,992 spaces, with 785 at Surf City and 1,207 at North Topsail. Those numbers are included in Tables 3.2 and 3.3. The distribution of parking spaces is uneven, with some areas not meeting a minimum of 10 publicly available parking spaces within one-quarter mile. Areas having access, but needing parking, are indicated in yellow in the access site figures. One area in the southern part of Surf City is 7,600 ft. long. Another area in North Topsail Beach is 600 ft. long. The total length of study area with access but without minimum parking requirements is 8,200 ft. A total of 37 additional parking spaces would needed in the southern portion of the project limits in Surf City and a minimum of 20 in North Topsail Beach would be needed to satisfy the 10-space minimum requirements.

FEIS/FS, Sec 3.04



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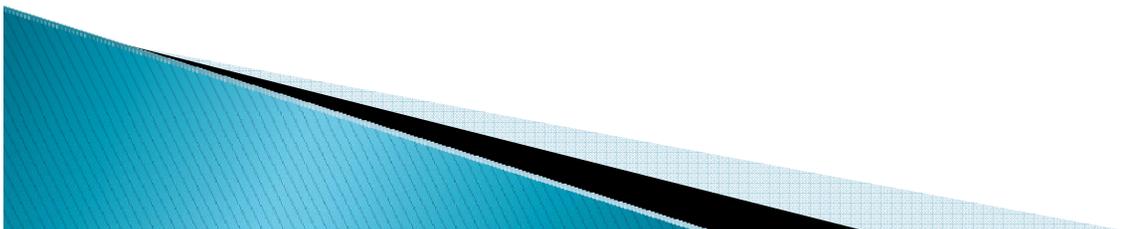
# Beach Access Parking Upgrades

- ▶ No final decision has been made on the location or manner of parking upgrades
- ▶ According to the USACE, Surf City must provide an additional 37 parking spaces in the southern project area
- ▶ The preliminary estimated cost of parking & access upgrades is \$1,250,000 in five areas
- ▶ More assessment of this requirement is needed

# Can I Build a Walkover over the New Project Dunes? Yes

Owners are allowed to build and maintain walkover structures over the federal beach project dunes but will be required to obtain appropriate permits as required with all new walkovers.

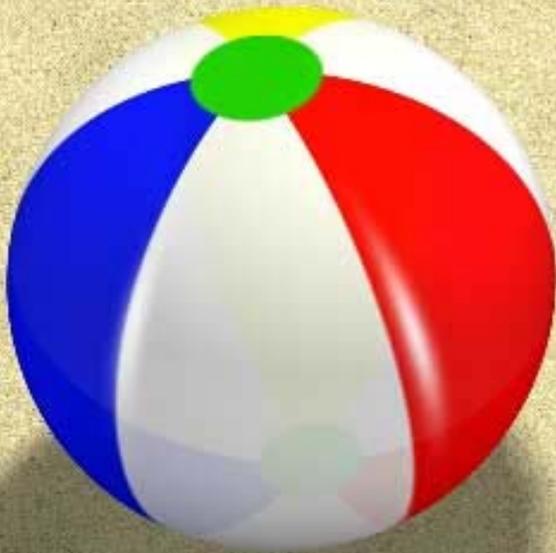
See, FEIS/FS, Appendix M, page 9



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# Part VI

## DRAFT FUNDING PLAN



# Local Cost for Initial Project

	Local Cost	LERRD Credit	Access Upgrades	Total
Scenario 1	\$14,088,212	\$4,814,000	\$1,250,000	\$10,524,212
Scenario 2	\$18,938,841	\$4,814,000	\$1,250,000	\$15,374,841

Note: These cost estimates are for the initial project only and are preliminary. Final costs and timing will not be known until the project is fully authorized by congress, federal funds are appropriated, and the project is bid out. The LERRD credit and cost of local access upgrades will not be determined access upgrades are fully analyzed and until the PPA is signed.

# Approximate Beach Fund Shortfall

All Costs in Millions, Based on Conceptual Estimated Costs and Balances

Initial Local Project Cost	Appx Current Beach Fund Balance	Additional BF Revenues Expected @ Current Rates <small>(FY 13-14 &amp; FY 14-15)</small>	Additional Beach & Project Costs Expected in FY 13-14 & FY 14-15	Estimated BF Balance in FY 14-15 w \$2M Reserve	Estimated Revenue Shortfall
\$10.52	\$5	\$2	\$1	\$4	\$6.52
\$15.37	\$5	\$2	\$1	\$4	\$11.37

This is a conceptual estimate of the Beach Fund Shortfall for the initial Federal Project, assuming construction begins in December 2015. It is based on roughly projected future beach fund revenues and costs. Additional verification is required.

# Conceptual Ad Valorem Tax Increase to Fund Initial Construction @ 4% Interest

	Loan Amt (Millions)	Loan cost W/ 2% Loan/Bond Admin	Payback Period Years	Annual Cost	Revenue Generated per 1 cent increase in tax rate	Necessary Tax Rate Increase (Cents/\$100)
Scenario 1	\$6.52	\$6.65	8	\$991,436	\$120,000	8.26
Scenario 2	\$11.37	\$11.6	8	\$1,728,550	\$120,000	14.40

The preliminary tax rate change to support the conceptual project costs above ranges from 8.26 cents to 14.40 cents per \$100 property value. The cost and timing or renourishment projects, and whether additional ad valorem funds would be necessary for these efforts is still under evaluation.

**COST OF AD VALOREM TAXES AT FIVE SAMPLE RATES  
ON A PER MONTH & PER YEAR BASIS**

Property Value	1 cent per \$100 Value		5 cents per \$100 Value		10 cents per \$100 Value		15 cents per \$100 Value		20 cents per \$100 Value	
	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year
\$100,000	\$0.83	\$10.00	\$4.17	\$50.00	\$8.33	\$100.00	\$12.50	\$150.00	\$16.67	\$200.00
\$150,000	\$1.25	\$15.00	\$6.25	\$75.00	\$12.50	\$150.00	\$18.75	\$225.00	\$25.00	\$300.00
\$200,000	\$1.67	\$20.00	\$8.33	\$100.00	\$16.67	\$200.00	\$25.00	\$300.00	\$33.33	\$400.00
\$250,000	\$2.08	\$25.00	\$10.42	\$125.00	\$20.83	\$250.00	\$31.25	\$375.00	\$41.67	\$500.00
\$300,000	\$2.50	\$30.00	\$12.50	\$150.00	\$25.00	\$300.00	\$37.50	\$450.00	\$50.00	\$600.00
\$350,000	\$2.92	\$35.00	\$14.58	\$175.00	\$29.17	\$350.00	\$43.75	\$525.00	\$58.33	\$700.00
\$400,000	\$3.33	\$40.00	\$16.67	\$200.00	\$33.33	\$400.00	\$50.00	\$600.00	\$66.67	\$800.00
\$450,000	\$3.75	\$45.00	\$18.75	\$225.00	\$37.50	\$450.00	\$56.25	\$675.00	\$75.00	\$900.00
\$500,000	\$4.17	\$50.00	\$20.83	\$250.00	\$41.67	\$500.00	\$62.50	\$750.00	\$83.33	\$1,000.00
\$550,000	\$4.58	\$55.00	\$22.92	\$275.00	\$45.83	\$550.00	\$68.75	\$825.00	\$91.67	\$1,100.00
\$600,000	\$5.00	\$60.00	\$25.00	\$300.00	\$50.00	\$600.00	\$75.00	\$900.00	\$100.00	\$1,200.00
\$650,000	\$5.42	\$65.00	\$27.08	\$325.00	\$54.17	\$650.00	\$81.25	\$975.00	\$108.33	\$1,300.00
\$700,000	\$5.83	\$70.00	\$29.17	\$350.00	\$58.33	\$700.00	\$87.50	\$1,050.00	\$116.67	\$1,400.00
\$750,000	\$6.25	\$75.00	\$31.25	\$375.00	\$62.50	\$750.00	\$93.75	\$1,125.00	\$125.00	\$1,500.00

# Open Discussion

(My Turn to Listen)

# New Access Costs Not Creditable

- ▶ Local sponsors must meet requirements for public access to participate in cost sharing with the Federal Government. Public access must be available every one-half mile, and parking must be within one-quarter mile of any access for which the sponsor desires to take credit. Engineer Regulation 1165-2-130 sets forth the requirements for public access. Surf City and North Topsail Beach currently do not meet this requirement. The sponsors are working toward meeting this requirement and understand that they must provide additional access points/ parking prior to signing the Project Partnership Agreement (PPA) to be eligible for full Federal cost sharing. These areas should be acquired either in fee or perpetual easement. Acquisition of public beach access points that are necessary for compliance in cost sharing is strictly a sponsor responsibility and is not considered a project cost. Accordingly, any cost incurred with the acquisition of public access points is not considered a creditable expense towards project cost.
- ▶ Appendix M @ 15

# Credit for Rights of Way & Construction Access

- ▶ The non-Federal sponsor is entitled to receive credit against its share of project costs for the value of lands it provides and the value of the relocations that are required for the project. Generally, for the purpose of determining the amount of credit to be afforded, the value of the LER is the fair market value of the real property interest, plus certain incidental costs of acquiring those interests, that the non-federal sponsor provided for the project as required by the Government. In addition, the specific requirements relating to valuation and crediting contained in the executed PPA for a project must be reviewed and applied. For shore damage reduction projects, lands subject to shore erosion, that are required for project purposes and that must be provided by the non-federal sponsor must be appraised for crediting purposes considering special benefits in accordance with relevant Federal statutes and Department of Justice guidance. Appendix M @ 16
- ▶ 2.17 Estates for Proposed Project
- ▶ The standard Perpetual Beach Storm Damage Reduction Easement will be used for those parcels where easements are required to construct the project. The Temporary Work Area Easement will be used for the staging areas. The Fee Estate will be used for the acquisition of any parcels where dwellings will be impacted by construction of the project. Appendix M @ 17

# FEIS Appendices

- ▶ Appendix A Project Maps
- ▶ Appendix B Economic Analyses
- ▶ Appendix C Geotechnical Analyses
- ▶ Appendix D Coastal Engineering
- ▶ Appendix E Sand Compatibility Analysis
- ▶ Appendix F – unassigned –
- ▶ Appendix G Section 404(b)(1) Guidelines Analysis
- ▶ Appendix H Correspondence
- ▶ Appendix I Biological Assessment – Endangered Species
- ▶ Appendix J Cumulative Effects
- ▶ Appendix K Scoping Letters & List of Respondents
- ▶ Appendix L Fish & Wildlife Coordination Act Report
- ▶ Appendix M Real Estate Plan
- ▶ Appendix N Project Costs
- ▶ Appendix O Recreation Analyses
- ▶ Appendix P Nonstructural Alternatives
- ▶ Appendix Q Larval Entrainment
- ▶ Appendix R Nearshore and Offshore Hard Bottom Survey Reports
- ▶ Appendix S Benthic Community Characterization Survey
- ▶ Appendix T Comments and Responses
- ▶ Appendix U Archaeological Report